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APRIL 10TH-11TH
2025
FORGING THE FUTURE
VISITOR'S GUIDE

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For More Information

Visitor's Booth
Have any questions? Need another visitor's guide? Exhibit suggestions? Find our volunteers to answer your questions in the Campus Instructional Facility (CIF), outside Sidney Lu Mechanical Engineering Building, outside Electrical and Computer Engineering Building (ECEB), or the courtyard between the Siebel Center for Computer Science and the National Center for Supercomputing Applications (NCSA).

Food
Look out for our students' favorite food trucks on Mathews Avenue, including:
- Juanitos Tacos
- La Paloma
- Burrito King
- Pastamania
- Brien's Bistro
- Smith Burger Company
- Kona Ice
- Travelin' Toms Coffee
- Urban Oasis
- Stango Cuisine

Shirt Colors
Have a question? Check here to see who to ask!
Volunteers - Sunset
Exhibitors - Cosmic Purple
Committee Members - White
Sponsors - Aquatic
Judges - Cardinal Red
HSDC - Light Pink
MSDC - Yellow Haze
Start-Up Showcase - Dark Green
Visitors - Azure Blue

In Case of an Emergency

Severe Weather
Please check our website in case of severe weather to see where exhibits will be held.
https://eohillinois.org

Missing Child
In the case of a lost/missing child: Notify the visitor's booth nearest to you that you have custody of a lost child. A volunteer will bring the lost child to the visitor's booth in CIF, notify 911, and meet the reporting person and the lost child there. This is where a parent/guardian can meet the child.

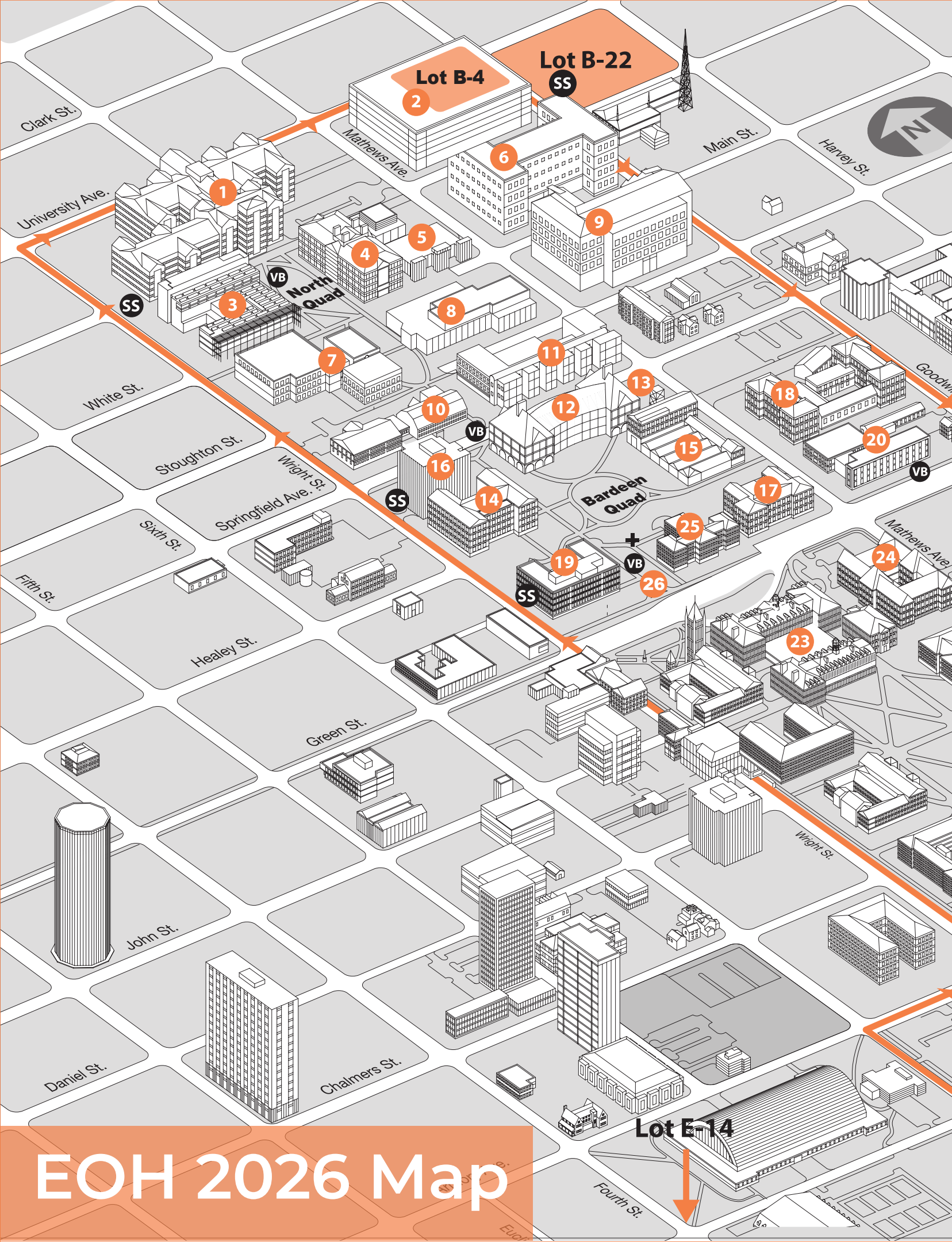
Medical Concerns
In case of injury, immediately notify any nearby volunteer and go to the EMS tent on Graziano Plaza, in between Engineering Hall and Everitt Laboratory.

Local Hospitals
Carle Foundation Hospital
Presence Covenant Medical Center

Lost and Found
Missing items can be brought to our lost and found at the Visitor's Booth in CIF between 9 am and 5 pm on Friday and Saturday or at the Engineering Council Office (Engineering Hall 103C) any other time.

Other Emergencies
Approach any EOH volunteer in the Visitor's Booth in the Campus Instructional Facility.

All minors must be accompanied by a parent or guardian!


Lot B-4
Lot B-22
Lot E-14
North Quad
Bardeen Quad
SS
VB
1
2
3
4
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7
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14
15
16
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24
25
26
Clark St.
University Ave.
Mathews Ave.
Main St.
Harvey St.
White St.
Stoughton St.
Springfield Ave.
Wright St.
Sixth St.
Fifth St.
Healey St.
Green St.
John St.
Daniel St.
Chalmers St.
Fourth St.
Goodwin
Mathews Ave.
N

EOH 2026 Map


1. Beckman Institute
2. Coordinated Science Laboratory (CSL) Studio
3. Electrical and Computer Engineering Building (ECEB)
4. Coordinated Science Laboratory (CSL)
5. Hydrosystems Laboratory
6. National Center for Supercomputing Applications (NCSA)
7. Nick Holonyak Jr. Micro & Nanotechnology Laboratory
8. Newmark Civil Engineering Laboratory
9. Siebel Center for Computer Science
10. Kenney Gym Annex
11. Digital Computer Laboratory (DCL)
12. Grainger Engineering Library
13. Grainger Loading Dock
14. Talbot Laboratory
15. Mechanical Engineering Laboratory (MEL)
16. Campus Instructional Facility (CIF)
17. Materials Science and Engineering Building (MSEB)
18. Transportation Building
19. Everitt Laboratory
20. Sidney Lu Mechanical Engineering Building (LuMEB)
21. Loomis Laboratory
22. Materials Research Laboratory (MRL)
23. Illini Union
24. Natural History Building
25. Engineering Hall
26. Graziano Plaza
27. Observatory
VB Visitor's Booth
SS Shuttle Stop
Emergency Medical Services
Parking Lot
Springfield Ave.
Green St.
Oregon St.
Gregory St.
Gregory Dr.
Lorado Taft Dr.
22
21
27
SS

PARKING AND SHUTTLE INFORMATION

Parking

On Friday and Saturday, visitors can park in these lots:

Lot E-14: Near State Farm Center. Can be used for all-day parking on Friday April 10th and Saturday April 11th. The shuttle will pick visitors up from E-14 and drop them to the Bardeen Quad/ other exhibits.
Lot B-4: North campus, can also be used for all day parking April 10th/11th. There is no shuttle stop here the closest stop would be B-22.

On Saturday, visitors can also park in:

B1- Springfield Avenue between Mathews and Goodwin, B17- Harvey Street between Clark and Main, C09- Chalmers and Sixth, D09- Illinois and Lincoln, E14- First Street and Kirby, F23- Lincoln Avenue and Florida, F28- Peabody and Dorner Drive, B4- University and Mathews, F29- Gregory and Dorner Drive.

Pick-up and Drop-off

B-22 will be used for bus parking, buses will only be able to pick up/drop off there. Visitors must take the shuttle or walk to B-22 and leave from there at the end of their day if being picked up by a bus.

Street Closures

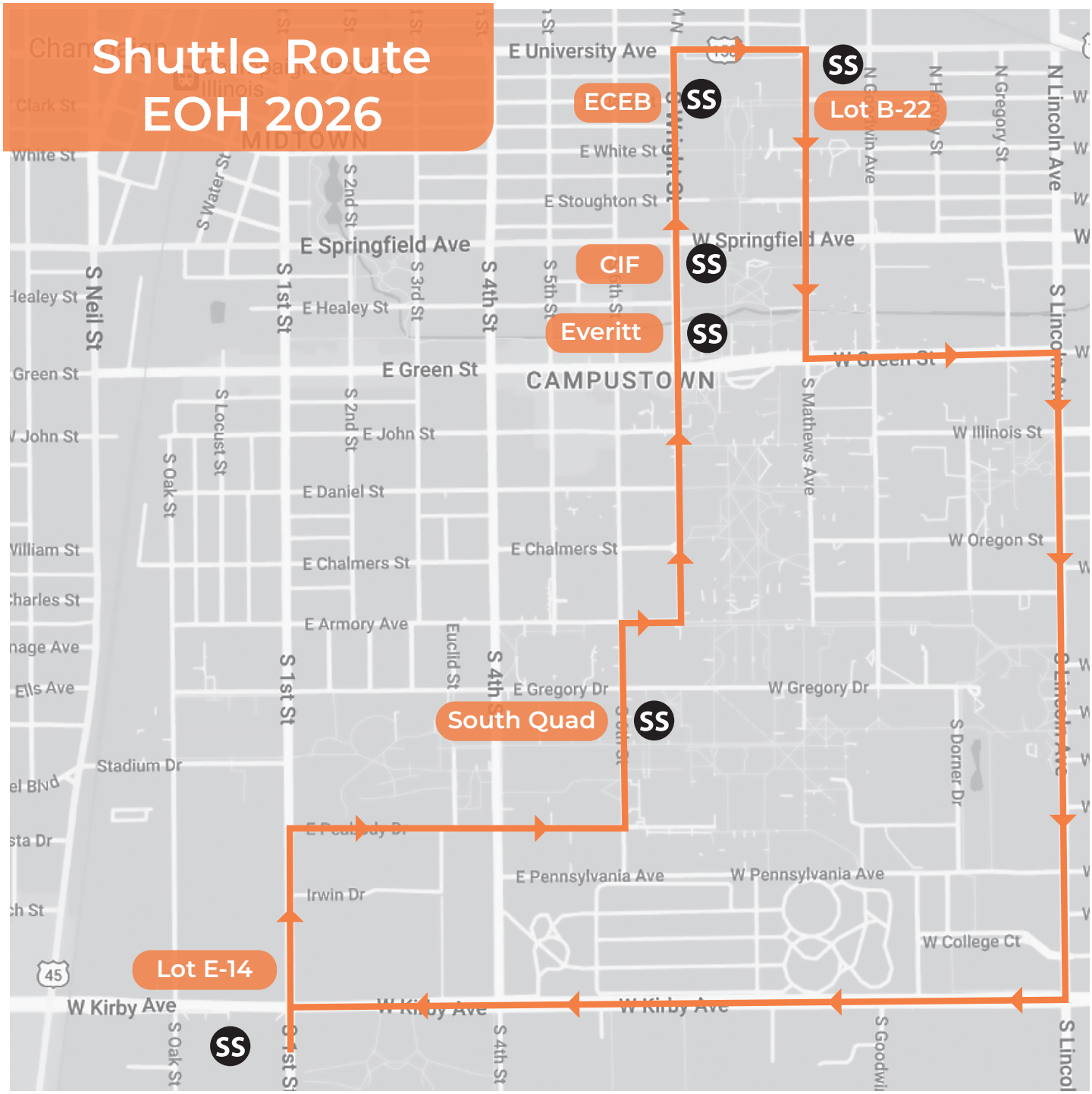
W. Springfield Ave (Wright to Mathews) and S. Mathews St (Green to Springfield) will be closed. Only sponsors, committee members, F&S vehicles, emergency vehicles will be allowed in. The road will be closed from 7 am to 6 pm.

Shuttle Information

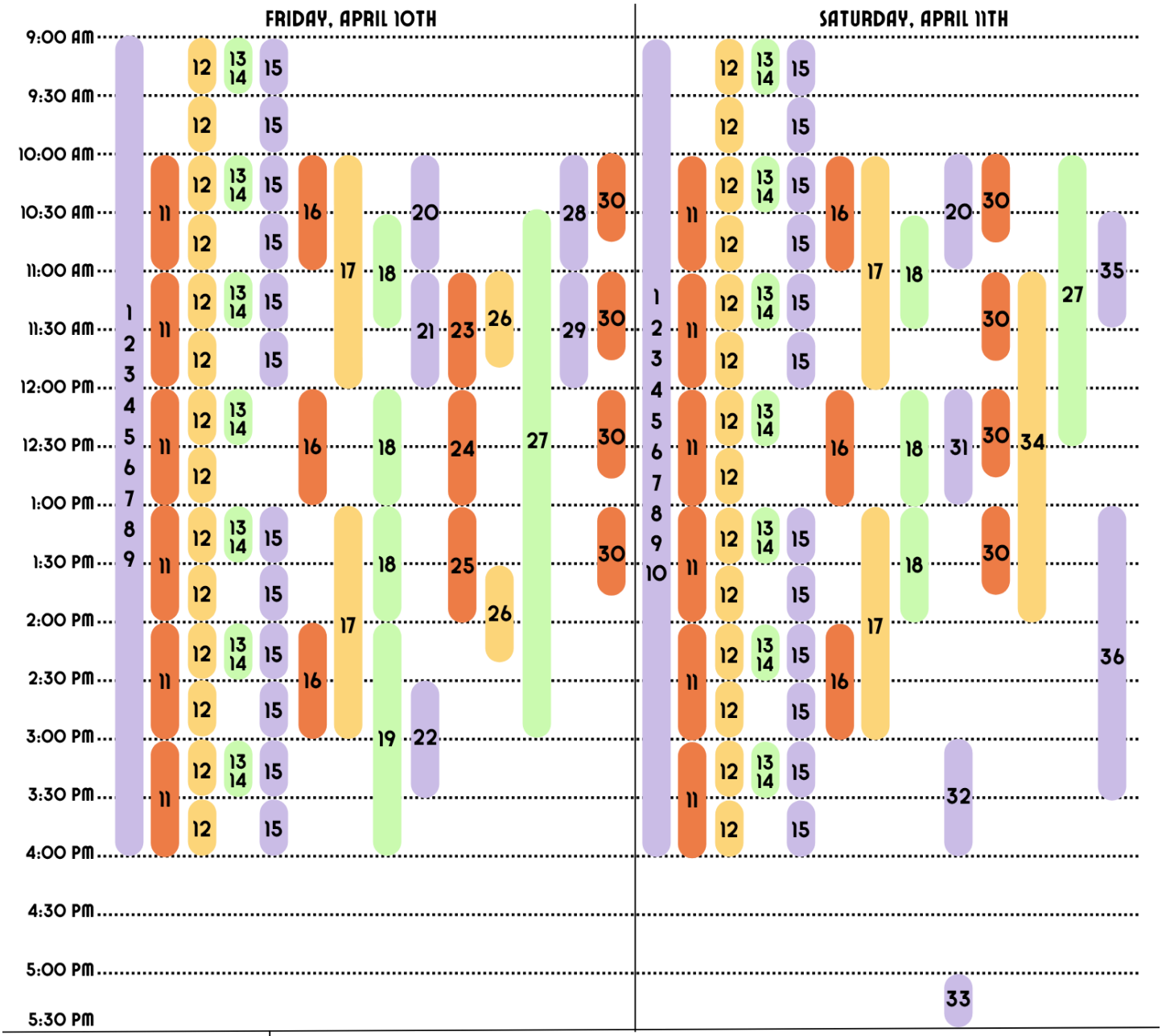
The shuttle will run from 8:00 am to 5:30 pm Friday and Saturday. Shuttle stops will be:

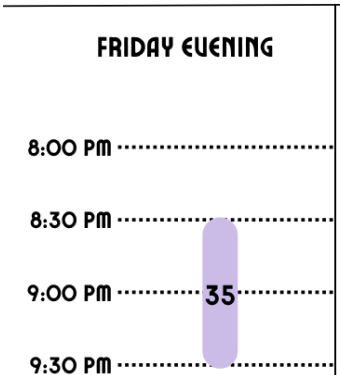
Lot E-14
Lot B-1
Everitt Laboratory
Electrical and Computer Engineering (ECEB)
Lot B-22

and then will return to E-14 and repeat.


Shuttle Route
EOH 2026
ECEB
Lot B-22
CIF
Everitt
South Quad
Lot E-14
SS
E University Ave
E White St
E Stoughton St
E Springfield Ave
W Springfield Ave
E Healey St
E Green St
CAMPUSTOWN
E John St
E Daniel St
E Chalmers St
E Armory Ave
E Gregory Dr
W Gregory Dr
W Illinois St
W Oregon St
E Pennsylvania Ave
W Pennsylvania Ave
W College Ct
W Kirby Ave
Irwin Dr
Stadium Dr
S Neil St
S 1st St
S 2nd St
S 3rd St
S 4th St
S 5th St
S Locust St
S Oak St
S Mathews Ave
S Dorner Dr
N Lincoln Ave
N Gregory St
Euclid St
MIDTOWN

SCHEDULE OF SPECIAL EVENTS





1. American Society of Civil Engineers (ASCE)
2. Computer Science Games and Activities
3. NovoPrint 3-D Printing Robotic Arm
4. Illini Pullers
5. Satellite Sightseeing
6. Dept of Climate, Meteorology, Atmospheric Sciences
7. LabEscape (by appointment only)
8. Robobrawl Design, Print, Destroy!
9. Pacbot Competition
10. Reimagining Cultivation & Agricultural Production Systems by Crop Sciences @ Illinois
11. GlideControl
12. The Icing on the Machine: A Rube Goldberg Story
13. Shark Tank
14. Rocket Races
15. Keeping Our Rivers Green
16. Physics Van
17. Superhero Hospital
18. ESTAR Engineering Campus Tours
19. Alumni Coffee Chats
20. I'm Admitted! Grainger Engineering Welcome: Student Panel
21. I'm Admitted! Grainger Engineering Welcome: College Resource Fair
22. Keynote Speaker- Christina Ersnt
23. CAD Workshop
24. Web Design Workshop
25. Python Workshop
26. Chai Town
27. Face Painting
28. Professor Panel
29. Alumni Panel
30. Hybrid Illinois Device for Research and Applications (HIDRA)
31. Alumni Reception
32. Keynote Speaker- Aadeel Akhtar
33. Joint Q&A with Keynote Speakers: Christina Ersnt & Aadeel Akhtar
34. Mom's Weekend Design Challenge
35. Startup Showcase Keynote Speaker -Johana Vega Leone
36. Startup Showcase Pitch Competition
37. Tesla Coil Concert

Keynote Speaker
CIF Monumental Steps Friday 2:30 - 3:30 pm (Christina Ernst), Saturday 3-4 pm (Aadeel Akhtar), Saturday 5-5:30 pm (Joint)
The two accomplished alumni of University of Illinois Urbana-Champaign, Christina Ernst and Dr Aadeel Akhtar are one of the leading examples of how innovation in engineering can transform lives and expand creative boundaries. Christina Ernst is a senior software engineer at Google and the fashioneering content creator behind She Builds Robots (@shebuildsrobots). Her tech-fashion crossover work has been featured in CNN Style, Make: Magazine, Forbes, Entertainment Weekly, CBC, and Popular Science. Dr. Aadeel Akhtar, the founder and CEO of PSYONIC is on the forefront of redefining prosthetic technology. His innovations, such as the Ability Hand, combines neuroscience, robotics, and human-centered design to improve quality of life worldwide.

Tesla Coil Concert
Bardeen Quad Friday 8:30-9:30 pm
Just as dark falls, visit the Bardeen Quad to see an electrifying display of light and sound.

Build-a-Blinkie
CIF 0035 Friday and Saturday 9 am-4 pm
Build-a-Blinkie is an organization dedicated to the teaching of STEM. We are teaching people to solder one blinkie at a time. Come check out this interactive activity and take home your own soldered blinkie!

ESTAR Tour
ESTAR Booth outside CIF Friday and Saturday 10:30 am, 12 pm, and 1 pm
Come learn more about the Grainger College of Engineering with a tour from an engineering student admissions representative (ESTAR)! One-hour tours depart from the Bardeen Quad at 10:30am, 12:00pm and 1:00pm. No registration necessary!

American Society of Civil Engineers (ASCE)
Newmark Civil Engineering Lab Friday and Saturday 9 am-4 pm
ASCE will have a spin-the-wheel game with civil engineering trivia for visitors of all ages. Prizes will be available for winners. There will also be a concrete cornhole game.

Build Your Own Terrarium / Make Your Own Soda Tab Buddy
National History Building 2078 Friday 11 am - 1:30 pm
Join us for two separate hands-on sustainability workshops: create a mini terrarium ecosystem in a jar to learn about natural cycles, or upcycle recycled soda can tabs into fun “tab buddies” to turn everyday waste into something reusable.

Computer Science Games and Activities
Thomas M. Siebel Center for Computer Science Friday and Saturday 9 am-4 pm
Come explore all you can do with Computer Science and AI! Organized by Siebel School of Computing and Data Science, these two rooms will feature many interactive activities for all ages.

Department of Climate, Meteorology, and Atmospheric Sciences
Bardeen Quad Friday and Saturday 9 am-4 pm
Have you ever wondered about tornadoes or how rainbows get their color? Are you looking for a college program to study weather or climate? Look no further than the Department of Climate, Meteorology, and Atmospheric Sciences! We will have interactive demos of weather phenomena, instruments that we use to study the weather, and weather balloon launches each day of EOH!

GlideControl
Digital Computer Laboratory Basement Friday and Saturday 10 am-4 pm
See the amazing physics behind modern parachute control systems in GlideControl, and learn about the ways that they can be used like air sea rescue and air drop systems.

Reimagining Cultivation & Agricultural Production Systems by Crop Sciences @ Illinois
National Center for Supercomputing Applications Friday and Saturday 9 am-4 pm
This exhibit explores how Crop Sciences is reimagining agricultural production systems by integrating plant biology, engineering, ecological design and the state-of-the-art computational and analytical technologies. Visitors will discover the remarkable natural diversity of crops such as soybean and maize through herbarium displays and visual demonstrations of plant architecture, seed traits, and growth habits. These biological differences shape how crops perform in different environments and production systems.

Physics Van
Loomis Laboratory 141 Friday and Saturday, Shows at 10:00 am, 12:00 pm, and 2:00 pm
By performing and explaining exciting physics demonstrations, we show our audiences that science is fun and worthwhile for people who wonder about why the world acts the way it does. We challenge kids’ mental picture of what kind of people scientists are. We show them that as long as you want to learn and have fun, there’s a world of physics waiting to be discovered! The Physics Van travels to elementary schools in Champaign-Urbana, IL and towns in the surrounding area.

Professor Panel
CIF 2018 Friday 10 am-11 am
The professor panel is an opportunity for current and prospective students to ask professors about their fields, how to get involved with research, and pursuing academia/graduate school.

Workshops in Python, CAD, and Web Design TBD
CAD: Engineering Hall 406B1 & 110A Friday 11 am-12 pm
Python: Engineering Hall 406B1 & 110A Friday 12-1 pm
Web Design: Engineering Hall 406B1 & 110A Friday 1-2 pm
Join us for a workshops in Python, CAD, and Web Design at the Engineering Hall cj Watch two rockets race between the bridges every hour! We designed and built 2 model rockets, and will race them between the bridges while teaching about the processes used to build rockets and the motors that power them.

Interactive Lego Design
CIF 2039 Friday and Saturday 9:30 am-4 pm
The Lego Design Lab is a place designed for students of all ages to engage in interactive lego building and coding. There will be 3 stations: Robot Maze, Machine Building, and Spider Obstacles.

I’m Admitted! Welcome to Grainger College of Engineering: Congratulations to our admitted first-year and transfer engineering students! Start your Engineering Open House visit at the Campus Instructional Facility (CIF) to receive a limited-edition gift while supplies last. Join us for a **Student Panel** from 10 am-11 am in CIF Room 4025 to meet a Dean and connect with current students. On Friday, April 10, we will also have a **College Resource Fair** from 11 am-12 pm at the monumental steps on the 1st floor.

SPECIAL EVENTS CONT

Illini Pullers
North Quad Friday and Saturday 9 am-4 pm
The Illini Pullers are an engineering design RSO that builds quarter-scale pulling tractors.

Keeping Our Rivers Green
Boneyard Creek, Bardeen Quad Friday and Saturday: Every half hour starting 9:05 am from 9 am - 12 pm and 1 pm - 4 pm
To keep our rivers green, we will be dyeing them green! We will inject a small amount of dye in our Boneyard Creek to learn how pollutants travel in rivers. With this knowledge we can avoid the risks that pollution brings to our rivers.

LabEscape
Digital Computing Lab 1262 Scan the QR code on the right to view times and sign up!
A terrible tragedy threatens the entire world - quantum tech is our only hope. Are YOU up to the challenge of the world's only science-based escape room??? The very latest chapter in the Prof. S. saga is Dark Matter Disaster. The year is 2058. Jupiter seemed like such a good idea at the time, until an unlikely accident sends it careening towards earth. **Reservations required: https://labescape.org/eoh2026/**

Mom's Weekend Design Competition
Loomis 136 Saturday 11 am-2 pm
Stop by with your mom or friends and compete in our design competition! Spend as long as you would like and show off your engineering intuition. You may bump into Christina Ernst (shebuildsrobots) here!

Hybrid Illinois Device for Research and Applications (HIDRA)
Nuclear Radiation Laboratory Friday and Saturday, shows at 10-10:45 am, 11-11:45 am, 12-12:45 pm, 1-1:45 pm
A one-of-a-kind research fusion reactor! The University's own hybrid tokamak/stellarator fusion device!
Sign up for a tour here: https://tinyurl.com/eohhidratour

Liquid Nitrogen Ice Cream
Loomis Laboratory
The Physics Van will be hosting live demos for Engineering Open House audience at Loomis Laboratory. After each show, members of the Physics Van will serve liquid nitrogen ice cream to guest while supplies last.

NovoPrint 3D-Printing Robot Arm
Sidney Lu Floor 1 Friday and Saturday, 9 am - 4 pm
A 3D printed, 3D printing robotic arm

Pacbot Competition
Nick Holonyak Micro & Nanotechnology Laboratory Friday and Saturday 9 am-4 pm
Pacman Robot Competition

Robobrawl Design, Print, Destroy! (D.P.D.)
Holonyak Micro & Nanotechnology Laboratory Friday and Saturday, 9 am - 4 pm; finals at 3:30-4 pm
Battlebots but small! Come by and see some awesome matches as competitors fight their combat robots to win the gold!

Rocket Races
Bardeen Quad Friday and Saturday 9 am-4 pm every hour on the hour
Watch two rockets race between the bridges every hour! We designed and built 2 model rockets, and will race them between the bridges while teaching about the processes used to build rockets and the motors that power them iSENS Lab, Siebel School of

Satellite Sightseeing
Bardeen Quad Friday and Saturday 9 am-4 pm
Take an "Earth-selfie" from a weather satellite in space! ISSRC's Satellite Sightseeing Exhibit interactively explores the concept of amateur satellite communication, and explores how even college students can receive and decode weather satellite imagery. Combining this with an interactive mobile antenna mount, we can sightsee the earth from many different angles!

Shark Tank
Transportation Building Friday and Saturday 9 am-4 pm every hour on the hour
Dive into a fast-paced challenge where teams brainstorm pitch their innovative solutions to an engineering problem.

Superhero Hospital
Everitt Laboratory 1302 Friday and Saturday, 10-12 pm and 1-3 pm
Visit the Superhero Hospital to learn how bioengineering can help heal our superheroes after they save the day! Check out all 5 of our activities and receive a special item at the end.

The Icing on the Machine: A Rube Goldberg Story
Sidney Lu Floor 1 Friday and Saturday 9 am-4 pm every 30 minutes
Watch a bakery-themed chain reaction end with a delicious reveal!
Step into a world of engineering confections! Our bakery-themed Rube Goldberg machine transforms pastries and coffee beans into a wonderfully clumsy chain reaction, all to accomplish one simple, sweet task: opening a box.

Alumni Coffee Chats
CIF 2018 Friday 2 pm - 4 pm
Students can get to know alumni in a more personal setting! This is a great opportunity to ask alums about their time at the U of I, the industries they work in, and how students can plan their lives after college.

Alumni Panel
CIF 2018 Friday 11 am - 12 pm
Come learn about different careers and projects from UIUC alumni!

Chai Town
Graziano Plaza Friday 11-11:45 am
Come listen to UIUC's famous South Asian acapella group!

Face Painting
Graziano Plaza Friday 10:30 am-3 pm, Saturday 10 am-12:30 pm
Make your imagination reality just like our exhibitors by visiting our face painting booth!

DIRECTORS' NOTE

Welcome to the 104th Engineering Open House (EOH) at the University of Illinois Urbana–Champaign! We are incredibly excited to invite you all to the nation's largest student-run STEM (Science, Technology, Engineering, and Math) fair and to showcase how the Grainger College of Engineering is **Forging the Future**.

For EOH 2026, we chose the theme **Forging the Future** to highlight the central role that Grainger's engineers hold in creating and shaping the technologies that define tomorrow. With 210 exhibits, 19 special events, and 15 engineering startups, most of which were designed and built entirely by current students, we proudly display the creativity, innovation, and ambition of UIUC students and faculty. Through these efforts, we not only demonstrate the limitless possibilities within STEM, but also aim to inspire the next generation of engineers to imagine and build the future themselves.

Behind every exhibit, event, and showcase stands a community of individuals whose efforts begin long before the doors open. From exhibitors and volunteers to corporate sponsors, faculty, staff, judges, alumni, and Grainger administration, this event is driven by hard work and a shared belief in the value of hands-on innovation and student leadership. The constant support of all of those involved strengthens a tradition that has inspired engineers for over a century.

At the heart of this weekend is the EOH Central Committee, composed of 29 student leaders who dedicate nearly a full year to transforming ideas into reality. Balancing coursework, research, internships, and personal commitments while leading an entirely student-run event of this scale is no small undertaking, and we thank our incredible committee for their true dedication to making Engineering Open House not just possible, but exceptional.

This year, the EOH committee has worked tirelessly to implement novel ideas towards Forging the Future of EOH. 2026 marks the debut of the EOH mobile app, opening new pathways for visitors to engage with our event. In addition, Startup Showcase has grown larger than ever, promoting entrepreneurship in engineering through new collaborations with some of the most impactful startup success stories. With the introduction of EOH's Research Showcase, we recognize the significant contributions to cutting-edge science made by undergraduate researchers at Illinois. Finally, a new commitment to sustainability ensures that we forge thoughtfully, creating an event that will inspire scientists and engineers for generations to come.

We greatly appreciate each and every one of our visitors for their support year after year, from students, faculty, and community members here in Champaign–Urbana to those traveling from across the state and beyond. We'd also like to extend an additional warm welcome to those joining us for Mom's Weekend and invite all guests to discover the unique events and experiences of EOH. As you explore, we encourage you to ask questions and immerse yourself in the innovation around you. We look forward to Forging the Future together.

Aparna Kamath & Maddie Conrad
Co-Directors, Engineering Open House 2026

EXHIBITS INDEX

EXHIBITS INDEX CONT

3D Printed Racecars Atalanta: The Space Argonaut
Tau Beta Pi Engineering
Come assemble your own 3D printed futuristic car and race against others to see who has the best design! These cars take advantage of a low friction surface, so no wheels are needed, and our volunteers can explain the physics behind how this works as well as the 3D modeling and printing that went into designing the car components you assemble.

Kid-Friendly
Cars
Physics

American Institute of Aeronautics and Astronautics Student Branch
American Institute of Aeronautics and Astronautics Student Branch
Explore the hands-on technical projects of the American Institute of Aeronautics and Astronautics (AIAA) Student Branch at UIUC, where engineering concepts become real hardware and prototypes. We'll have drone prototypes, detailed 3D CAD models, and visual displays that showcase projects like Project Lumyn and other aerospace designs developed by student teams.

Future-Oriented
Planes
Sustainable

ASABE
Agricultural and Biological Engineering
Come learn about how agriculture and biology impact the world around you and how we are innovating every day for a better world.

Agriculture
Biology
Environment

Bounce. Fizz. React.
X-Time at UIUC
Create your own bouncy ball and bring Frankenstein's Hand to life as you explore exciting chemical reactions through fun, hands-on experiments!

Chemistry
Kid-Friendly
Physics

Build up to Blast-Off
Illinois Space Society
How do hybrid rockets adjust their power? Watch a balloon inflate on its own as yeast and sugar react to produce carbon dioxide. By changing how much "fuel" goes into the reaction, you'll see how different mixtures create different amounts of gas. This hands-on experiment shows how hybrid rocket engines can increase or decrease thrust by adjusting propellant flow. Make a prediction, test it, and see the results in real time.

Outer-Space
Future-Oriented
Kid-Friendly

ChBE GSAC
GSAC
At this interactive exhibit, discover how chemical engineers forge the future by controlling how energy is stored and released. Split water into hydrogen and oxygen to store energy, then recombine it to power a fan, mirroring the same technology that runs hydrogen buses on campus. Explore a second station where invisible ultraviolet light becomes brilliant color through glowing molecules, revealing how energy can transform into light. From moving buses to glowing materials, see how chemistry becomes real-world technology through engineering.

Chemistry
Sustainable
Future-Oriented

Ctrl-Z Robotics
Ctrl-Z/FIRST Illini Robotics
We are Ctrl-Z, a robotics team in Champaign County and 2023 World Championship Winners! Come see our 2026 competition robot as well as our frisbee shooting robot!

Robotics
Kid-Friendly
Programming

Couch Car
American Society of Mechanical Engineers
You've seen a couch, you've seen a car, get ready for the couch car!

Cars
Mechanics
Kid-Friendly

Dig it!
Mechanical Science and Engineering Department
Take control of a construction machine and make it lift, swing, and dig!

Construction
Mechanics
Kid-Friendly

Scario
Biomedical Engineering Society
Scario helps you reduce scarring before you scar

Biology
Future-Oriented
Molecular Scale

GlideControl
Aerospace Engineering
See the amazing physics behind modern parachute control systems in GlideControl, and learn about the ways that they can be used like air sea rescue and air drop systems.

Robotics
Programming
Mechanics

Go With the Sustainable Flow!
American Institute of Chemical Engineers (AIChE)
Come explore how chemistry and engineering come together to build a cleaner, more sustainable future! UIUC's chapter of the American Institute of Chemical Engineers (AIChE) is excited to showcase a series of interactive projects demonstrating the vital role chemical engineers play in developing energy solutions that are sustainable. With multiple hands-on projects, students of all ages can stop by, experiment, and discover how chemical engineering powers the world.

Chemistry
Sustainable
Older student friendly

IHands-on Aerospace Manufacturing
Student Aircraft Builders
From Raw Materials to Liftoff: Experience Aerospace Manufacturing

Planes
Outer-Space
Design Team

Illinois Lunabotics
Illinois Robotics in Space
Mission MOON CANDY! Learn what it means to be a space engineer, dig out some eggs and candy from the surface of the planet, and enjoy the sweet rewards :)

Robotics
Outer-Space
Design Team

Keeping our Rivers Green
IWRA
To keep our rivers green, we will be dyeing them green! We will inject a small amount of dye in our Boneyard Creek to learn how pollutants travel in rivers. With this knowledge we can avoid the risks that pollution brings to our rivers.

Water
Environment
Environment

Laboratory for Advanced Space Systems at Illinois
Laboratory for Advanced Space Systems at Illinois
The Laboratory for Advanced Space Systems at Illinois is the premier satellite design and testing facility in The Grainger College of Engineering at the University of Illinois Urbana Champaign. Designed to support the full life cycle of small satellite missions, LASSI offers a professional, well-equipped environment for CubeSat and space hardware development, from early design to flight readiness.

Outer-Space
Research
Smart Technology

LRI's Rocketry Demo!
Liquid Rocketry at Illinois
Igniting to the stars! Intended audience: younger children

Electronics
Robotics
Outer-Space

Mars Sand Castles
Illinois Space Society
Can humans really live on Mars? Before astronauts arrive, robots will need to dig, move, and shape Martian soil, called regolith, to build safe habitats. Step into the role of a planetary engineer by using kinetic sand as simulated Mars regolith to design your own Martian structures. Drive small rovers, excavate material, and experience the challenges of building on another planet using robotic tools.

Outer-Space
Future-Oriented
Kid-Friendly

Motor Testing Technology
Illinois Space Society
Can you provide more power than a rocket motor? Testing a rocket motor requires a lot of detailed technology. Come try out that technology for yourself using our testing stand that can handle loads up to 400N of force!

Mechanics
Electronics
Physics

NSBE RC Spider Car
National Society of Black Engineers
A hypermobile remote-controlled spider car! Jump, Climb, and Shot Action! NSBE RC

Cars
Robotics
Electronics

Ornithopter
American Society of Mechanical Engineers
When Robotics Grows Wings. Watch a bird-inspired ornithopter robot flap its wings and fly using motion similar to real birds. Unlike traditional drones, this robot relies on flapping wings to generate lift and movement. Visitors can see the ornithopter in action and learn how engineers use bio-inspired design to study flight and build new types of flying robots.

Robotics
Future-Oriented
Mechanics

Rocket Races
Illinois Space Society
Watch two rockets race between the bridges every hour! We designed and built 2 model rockets, and will race them between the bridges while teaching about the processes used to build rockets and the motors that power them

Mechanics
Outer-Space
Good for older students

Satellite Sightseeing
Illinois Space Society
Take an “Earth-selfie” from a weather satellite in space! ISSRC’s Satellite Sightseeing Exhibit interactively explores the concept of amateur satellite communication, and explores how even college students can receive and decode weather satellite imagery. Combining this with an interactive mobile antenna mount, we can sightsee the earth from many different angles!

Electronics
Good for older students
Weather

Science of Cotton Candy
Material Advantage
Watch sugar transform into fluffy cotton candy right before your eyes! Our exhibitors will spin fresh cotton candy on-site, explain the simple science behind how it’s made, and hand out samples to visitors. Stop by to see the process up close and enjoy a sweet treat.

Food
Chemistry
Kid-Friendly

Soap-Powered Propulsion
Aerospace Engineering
Add a single drop of soap and watch a paper boat zoom across the water. In this hands-on exhibit, visitors discover how changing surface tension creates motion, showing how propulsion can happen even without engines or moving parts.

Outer-Space
Future-Oriented
Physics

Sticky Situation, Lunar Dust Mitigation
Illinois Space Society
Why does Moon dust stick to everything? Charge a balloon and watch simulated lunar dust cling instantly, showing how electrostatic charging makes real Moon dust stick to spacesuits, tools, and habitats. Then explore another challenge lunar dust creates: clogged systems. Using a clear tube filled with “dust” particles, see how blockages form and test a hands-on removal method to keep systems flowing. This activity shows why managing lunar dust is a major challenge for future Moon missions.

Outer-Space
Future-Oriented
Physics

Strandbeest
Society for Engineering Mechanics
The Strandbeest, Dutch for “Beach Animal,” combines art and engineering. This project combines elegant, complex, dynamical design with simple materials and a simple mission: to synthesize a big walking thing.

Art & Design
Mechanics
Sustainable

Wearable GPS Mapping for Athletic Performance and Recovery
BMES
Come explore how to optimize your sports training and workouts!

Smart Technology
Design Team
Electronics

Women in Aerospace
Women in Aerospace
Build your own balloon rocket and watch it fly! Thread a string through a straw and pull it tight between two points to make your rocket’s path. Blow up a balloon (but don’t tie it), tape it to the straw, and let go to launch. The escaping air pushes the balloon forward, sending your rocket zooming down the string. Take your rocket home and keep experimenting for more high-flying fun!

Outer-Space
Physics
Future-Oriented

COORDINATED SCIENCE LABORATORY

Center for Autonomy Robotics Showcase
Robotics
Coordinated Science Laboratory (CSL Studio)
Future-Oriented
Exhibit will demonstrate robotics projects in Center for Autonomy Labs for participants to observe.
Research

DIGITAL COMPUTER LABORATORY (DCL)

ATLAS Peptide Design Lab
Chemistry
ATLAS
Biology
Come to our exhibit to learn about Antimicrobial Peptides (AMP), and design your own AMP!
Programming

Central Illinois Interurban Railway
Sustainable
Coordinated Science Laboratory (CSL Studio)
Future-Oriented
Future of Electrified Commuter Transportation: ITE showcases a small-scale battery-powered train that visitors can operate, which demonstrates how cities and campuses in Central Illinois can be connected through clean, comfortable, and energy-efficient transit. Additionally, visitors can map out the route that they took to EOH on a map, which will be used to optimize a route for this proposed train line."
Kid-Friendly

Drone Umbrella
Smart Technology
American Society of Mechanical Engineers
Weather
Drone Umbrella: Rain Protection of the Future
Future-Oriented

Engineering for an Accessible World
Design Team
MedLaunch UIUC
Kid-Friendly
How can we make our community a more accessible place through engineering? Explore six exciting projects that do just that – from a tactile board game to a custom device for a blind swimmer! While you're at it, experience the human-centered design process for yourself and engineer your own accessible stationery to bring home!
Health & Medicine

Lab Escape
Art & Design
Paul's Kwiat Group/LabEscape
Physics
World-renowned quantum physicist Professor Alberta Pauline Schrodenberg is quarantine and desperately needs your help - the fate and security of the entire world hang in the balance. You'll have to search her lab, solve mind-blowing puzzles to reveal clues, and hopefully find a way to complete your mission!
Future-Oriented

Make Your Own Lava Lamps
Chemistry
Alpha Chi Sigma
Kid-Friendly
Watch science bubble to life!

Mystery Compound Chemical Investigation
Chemistry
Reaching & Educating America's Chemists of Tomorrow
Kid-Friendly
You are a crime scene investigator who has been assigned the task of identifying the contents of a vial found at the scene of a murder. The vial is suspected to be a poison that was given to the victim in his drink. Various white powders were found in the car of the suspected killer. Your job is to analyze one of the white powders found in the car of the suspected killer to determine the composition of the poison. Each child will be given a compound and complete a series of experiments, along with their senses, to determine which compound they have.
Good for older students

SWE's Pirate Adventure
Society of Women Engineers
Ahoy! Come join the Society of Women Engineers on our pirate adventure as we build boats to sail the seven seas, design catapults, and learn to communicate through morse code to lead us to treasure.

Kid-Friendly
Boats
Construction

The Rheology Zoo
The Rheology Zoo
It's a fluid... It's a solid... It's both? Everyday materials such as honey, toothpaste, creams, shampoo, and peanut butter have some very unexpected behaviors that are carefully engineered for our benefit and comfort. By squeezing, mixing, bouncing, and stretching these materials, visitors can uncover the physics of rheology and learn how it shapes everything from our most dependable products to some of the most exciting future technologies.

Research
Mechanics
Chemistry

ELECTRICAL AND COMPUTER ENGINEERING BUILDING (ECEB)

Biomechanic Robotic Hand
Individual
The Bionic Reach: Master the Machine

Robotics
Prosthetics
Electronics

ECESAC Booth
ECESAC
ECESAC invites you to dabble in electrical engineering by making paper circuits! ECE student representatives will be available to answer any prospective student questions as well as showcase a student's project!

Electronics
Kid-Friendly
Smart Technology

Illini EVConcept Showcase
Illini EVConcept
Come join the Illini EVConcept autonomous team on trying to beat our agent in driving in a simulated environment.

Programming
Cars
Robotics

Illini Robomaster
Illini Robomaster
Please keep safety distance from the robot unless you are the next to try.

Robotics
Mechanics
Programming

Illini Vex Robotics: Software R&D
Illini VEX Robotics
See what's up and coming in the field of robotics!

Robotics
Research
Programming

InSPIRE's Dual Axis Photovoltaic System and Modular Rescue Drone
InSPIRE (The Institute for Scientific Progress, Innovation, Research, and Edu-Training)
Learn how InSPIRE combines a dual-axis solar tracking system with a modular rescue drone to deliver sustainable, off-grid emergency response. From renewable energy to real-world humanitarian applications, see applied engineering in action!

Sustainable
Electronics
Mechanics

IVR R&D Mech
Illini Vex Robotics
Can you put the shapes in the boxes with the arm?

Robotics
Electronics
Kid-Friendly

Information Trust Institute (ITI)
Grainger
Information Trust Institute (ITI): Securing the Systems that Power Our World
Explore how researchers at the Information Trust Institute are protecting critical infrastructure—from the electric grid and water systems to transportation and healthcare. Learn how cybersecurity, engineering, and artificial intelligence come together to keep essential systems safe, resilient, and trustworthy. Visitors can interact with real-world demonstrations that show how cyber-physical systems are secured, test their own detection skills in simulated environments, and see how future engineers are being trained to defend the technologies we all depend on.

Kid-Friendly
Electronics
Future-Oriented

ISSA Software Tech Team
Illinois Semiconductor Student Alliance
Design a Chip. Beat the Board.
Step into the role of a chip designer and see how your choices impact speed, heat, and reliability. This interactive exhibit lets visitors experiment, test their designs, and compete for the top spot on the leaderboard!

Electronics
Smart Technology
Future-Orient

Market in a Minute
Institute of Electrical and Electronic Engineers (IEEE)
How fast can a computer predict the next minute of the market? This exhibit shows a hardware-accelerated computer running over 100,000 simulations to predict how a stock may move over the next minute. The system uses custom hardware and a small machine learning model to produce a final predicted range, demonstrating how probability and computing power are used to make short-term forecasts.

Electronics
Programming
Good for older students

Optical Transceiver Project
Illinois Semiconductor Student alliance (ISSA)
Talk to your friends wirelessly using laser light!

Smart Technology
Electronics
Physics

Solar Cell LBIC Mapping
Korean-American Scientists and Engineers Association (KSEA)
What if you could see how a solar cell works—one tiny spot at a time?

Electronics
Sustainable
Research

Winnie Wheels: An Autonomous Delivery Robot System
Women in ECE (WECE)
Delivering the Future on Autonomous Wheels

Robotics
Electronics
Smart Technology

AccessiHear
Biomedical Engineering Society
Innovation means nothing if it is inaccessible. By creating an at-home DIY hearing aid kit, our exhibit explores how biomedical engineering can bridge this gap by making medical device technology more affordable and customizable. In doing so, we hope to highlight the future of medical devices: accessible, affordable, and designed for everyone.

Prosethetics
Health & Medicine
Biology

AirEmbrace
i-MADE
Step up to our interactive exhibit and see how pumps, valves, and pressure work together to create adjustable support in wearable medical devices. Try it yourself and discover how simple engineering ideas can lead to innovative solutions.

Health & Medicine
Electronics
Kid-Friendly

Build-A-Bridge - Engineers without Borders
Engineers without Borders
Select your materials on a budget, design, build and see how your bridge holds up against our challenges!

Construction
Design Team
Physics

Caff-fold
Biomedical Engineering Society
Watch science bubble to life!

Health & Medicine
Biology
Chemistry

Cancer Center at Illinois
Cancer Center at Illinois and Cancer Center at Illinois Student Organization
The Cancer Center at Illinois will host two interactive Engineering Open House tables highlighting cancer engineering and technology-driven approaches to cancer detection and treatment. One table will feature a hands-on micro:bit activity that models targeted cancer therapy, where participants interact with sensors and LEDs to explore how engineers design treatments that precisely target cancer cells while minimizing damage to healthy cells. A second table will showcase cancer imaging and prevention through a quantum dots lightbox demonstration, fluorescent “Future Scientist” coloring, and UV sun-safety bracelet take-home activities.

Health & Medicine
DNA
Kid-Friendly

Devices for Hand/Wrist Mobility Impairment
Biomedical Engineering Society
Help us create a world where anyone can do anything. Come try out handle enlargers and other accessibility devices that help make daily tasks easier for people with mobility impairments.

Weather
Kid-Friendly
Electronics

Department of Climate, Meteorology, and Atmospheric Sciences
Department of Climate, Meteorology, and Atmospheric Sciences
Have you ever wondered about tornadoes or how rainbows get their color? Are you looking for a college program to study weather or climate? Look no further than the Department of Climate, Meteorology, and Atmospheric Sciences! We will have interactive demos of weather phenomena, instruments that we use to study the weather, and weather balloon launches each day of EOH!

Health & Medicine
DNA
Kid-Friendly

e-NABLE Prosthetic Hands
e-NABLE Prosthetics UIUC
e-NABLE is an online global community of “Digital Humanitarian” volunteers from all over the world who are using their 3D printers to make free and low-cost prosthetic upper limb devices for children and adults in need. The open-source designs created by e-NABLE Volunteers help those who were born missing their fingers and hands or who have lost them due to war, natural disaster, illness or accidents.

Prosthetics
Biology
Kid-Friendly

Enceflow: Low-Cost Real-Time Neurofeedback of Mental States
i-MADE (Illinois Medical Advancements through Design and Engineering)
The Enceflow Headband understands your mind. Using real-time EEG signals, it tracks shifting mental states such as attention, calmness, and stress. See how your mind moves and stays in the zone as you navigate through various tasks!

Electronics
Health & Medicine
Smart Technology

Hart Attack Detection: A Low Cost method for Continuous ECG Monitoring
iMADE
Health & Medicine
Electronics
Programming
Watch the breakdown of how your heart beats every day. Heart Attack Detection invites you to experience a heart monitoring system using real-time ECG sensors and an Arduino-based system. Visitors can see their heart's electrical activity displayed live on screen. Watch as raw signals are filtered, analyzed, and transformed into meaningful patterns that help detect abnormalities linked to heart attacks.

Hand Therapy Glove
Biomedical Engineering Society
Health & Medicine
Mechanics
Robotics
What if a glove could help your hands move, stretch, and get stronger on their own? Meet the Hand Therapy Glove, a wearable robotic device that turns rehabilitation into an interactive experience. Inspired by real challenges faced by people recovering from injury or neurological conditions, this glove uses actuators, sensors, and smart controls to gently move your fingers, assist your motion, or even challenge you with resistance. Visitors can see the mechanics in action and explore how engineering, biomechanics, and healthcare come together to improve quality of life.

Clip-on Inhaler Device for better management and Monitoring of Asthma
BMES
Electronics
Health & Medicine
Smart Technology
Learn about a new clip-on device that will help track inhaler usage!

Hydrogel Drug Delivery for Tumor Resection
Biomedical Engineering Society
Health & Medicine
Molecular Scale
Research
Come check out our exhibit to see how a smart hydrogel can deliver drugs directly to the surgical site after tumor removal- right where lingering cancer cells can hide. Stop by to learn how this simple treatment could help prevent recurrence and improve recovery.

Hydrogels for Therapeutic Delivery
Wang Lab
Research
Health & Medicine
Chemistry
Common ingredients like gelatin, which can be used to make jello, can also be used in the treatment of deadly diseases, including cancer. In our exhibit, we will demonstrate how hydrogels can be used for therapeutic delivery!

Treehouse Pediatric
Illinois Medical Advancements through Design and Engineering
Smart Technology
Health & Medicine
Programming
Our team is developing a clinician-focused mobile app that streamlines patient tracking and helps therapists organize session activities with greater efficiency and clarity.

Intragastric Balloon Therapy
Illinois Medical Advancements in Design and Engineering
Health & Medicine
Prosthetics
Biology
Obesity affects over 40% of adults in the U.S., but many weight-loss treatments are too expensive to access. The intragastric balloon therapy helps people feel full by placing a balloon in the stomach, but it can cost over $1,500. We're creating a low-cost, minimally invasive, self-sealing balloon using female condoms, making the treatment safer and more affordable. Our design lowers the cost to around $10, and can help more people get the care they need.

MindScents
BMES
Research
Smart Technology
Data Science
MindScents measures emotional responses to basic scents using brain signals, then builds quantitative models to design personalized fragrance profiles. Come watch how scent shapes your emotion!

RAVAGE: Robotic Autonomous Vision Adaptive Ground Engine
Tau Beta Pi: The Engineering Honor Society
Robotics
Programming
Mechanics
"Meet SCOUT, the next generation of quadruped robots! Agile and intelligent, SCOUT is designed to navigate obstacles, explore environments, and interact with humans in real time. Watch as SCOUT demonstrates advanced mobility, obstacle detection, and problem-solving skills, bringing robotics to life with every step!"

ModuSize Socket
BMES
Biology
Prosthetics
Smart Technology

Prosthetic sockets must fit comfortably and securely, but human limbs are rarely perfectly cylindrical. Traditional adjustable sockets assume that a human limb is almost cylindrical, often relying on a single inflatable bladder. This can lead to uneven pressure and discomfort for users with irregular limb shapes or daily volume changes, causing excessive bruising. Our project explores the potential of an adaptive prosthetic socket that uses a foam sleeve and multiple small inflatable bladders distributed around the socket instead of one large bladder. This localized pneumatic approach allows fine-tuned adjustment at specific regions, improving comfort and demonstrating how engineering can better adapt to the human body.

Mouse Integration Glasses
MediMech & Hourglass Medical
Health & Medicine
Future-Oriented
Electronics

This exhibit features hands-free glasses that act as a mouse, and can be connected via any display to control your screen. These glasses can be used in the medical field by surgeons or for people with disabilities. “Control the screen, no hands required.”

Musa
Biomedical Engineering Society
Environment
Sustainable
Health & Medicine

Trash to treasure: food-waste-based sanitary pads on a mission to end period poverty and save the environment.

Neurogame
BMES
Electronics
Programming
Kid-Friendly

Play a video game with your brain and see your brainwaves in action!

NeuroGlove
BMES
Robotics
Health & Medicine
Prosthetics

The NeuroGlove is a glove that reads signals from your nerves and turns them into movement. This technology can help people regain hand control and interact easily with the world around them. Visit our exhibit to see how it works and try a hands-on demo.

NeuroTech - Decoding the Brain
NeuroTech @ UIUC
Programming
Research
Health & Medicine

Want to see what your thoughts look like? Drop by our booth to learn more about how brain data is processed and how it can be used to develop algorithms and models to improve focus, recognize emotion, upgrade neuroprosthetics, or even customize Spotify playlists! Come learn more about the brain, neurotechnology, and also gain the chance to see how EEGs work and virtually explore neural pathways!

Project PETRA (Pharmaceutically Enhanced Tissue Regenerative Adhesives)
i-MADE
Health & Medicine
Biology
Molecular Scale

Healing, Powered by Nature. Did you know the same natural material used to make boba pearls can also help heal wounds? Our exhibit explores how sodium alginate, a plant-derived material commonly found in boba, is used to create an all-natural, biodegradable hydrogel for wound care. Learn how this familiar (not to mention delicious!) ingredient can safely replace synthetic wound dressings while supporting effective healing.

SEAL: Temporary Hemostasis using Biocompatible Hydrogels
BMES
Biology
Health & Medicine
Chemistry

Severe bleeding can become life-threatening within minutes. This exhibit shows why fast first aid matters and how chemically reacting materials can be engineered to quickly expand, absorb fluid, and apply pressure, helping to buy critical time until medical care arrives. “Every second counts!”

Fueling the Future: From Chemistry to Cars
GSAC
Chemistry
Sustainable
Future-Oriented

Discover how chemistry powers clean transportation through hands-on demonstrations and guided activities. Visitors will explore how electricity flows through circuits using a copper tape maze, observe how redox reactions transfer electrons to generate energy, and watch a mini hydrogen fuel cell convert chemical energy into electricity.

EVERITT LABORATORY CONT

Stealth - A Mind For Your Muscles
Illinois Medical Advancements in Design and Engineering
Discover how engineers can measure muscle fatigue in real time using wearable technology. In this exhibit, visitors can try a sensor while performing bicep curls and watch as their muscle fatigue is detected live on a screen. By combining muscle activity signals and motion data, the system identifies when a muscle begins to tire, even before a person begins to feel it, preventing potential injury.

Smart Technology
Health & Medicine
Biology

Robotic Hand
BMES
Interactive Robotic Hand

Robotics
Smart Technology
Electronics

Stride Metrix
BMES
Real-time gait and walking rehabilitation metrics.

Health & Medicine
Mechanics
Programming

Superhero Hospital
Engineering Ambassadors (ENG 411) and Cosplay for Science
Visit the Superhero Hospital to learn how bioengineering can help heal our superheroes after they save the day! Check out all 5 of our activities and receive a special item after.

Health & Medicine
Good for older students
Kid-Friendly

The Invisible Sound Scrubber (An Efficient Ultrasonic Cleaner)
Biomedical Engineering Society (BMES)
The Invisible Sound Scrubber

Electronics
Health & Medicine
Smart Technology

NICK HOLONYAK MICRO & NANOTECHNOLOGY LABORATORY

Holonyak Micro Nano Technology Lab
Interdisciplinary Research Unit
The Holonyak Micro and Nano technology Laboratory exhibit demonstrates how the power of the sun can be used to make patterns on special paper. Similar techniques are used to make patterns on harder materials using UV light and photosensitive chemicals called photoresist. These patterned materials form the building blocks of everyday electronics including LEDs, solar cells, computers, and cell phones. Because these devices are at the micro or even the nanometer scale, they must be made in special environments called cleanrooms that control temperature, humidity, light, room pressure, and particles. Special clothing is also required to work in cleanrooms including hoods, suits, boots, and gloves that protect these delicate structures from the particles we generate just by moving. We will have demonstrations of sun/UV light patterning on paper and posters showing microfabrication processing.

Electronics
Molecular Scale
Smart Technology

Le Louvre Heist
Illinois MicroTech
Discover how electromechanical sensors impact your everyday lives. Have a go at re-enacting the theft of the priceless jewels from the vaults of Le Louvre with an interactive sensor based escape game! Go home with one of the “stolen” treasures, a prize to prove you cracked the vault (all 100% legal, we promise).

Smart Technology
Mechanics
Electronics

Learn about Light with iOptics
iOptics
Explore the properties of light with hands-on demonstrations, including likely the largest lens you’ve ever seen!

Physics
Future-Oriented
Good for older students

Pacbot Competition
iRobotics
Pacman Robot Competition

Robotics
Electronics
Programming

Robobrawl Design, Print, Destroy! (D.P.D.)
Robobrawl Committee
Battlebots but small! Come by and see some awesome matches as competitors fight their combat robots to win the gold!

Robotics
Mechanics
Electronics

Fluid Mechanics 101
IWRA
Here, at the Hydrosystems lab, water is what we are all about. But sometimes, we have to go back to the basics. Come to this exhibit to explore the fundamental properties of fluids and how they flow through simple experiments.

Kid-Friendly
Mechanics
Environment

Fluidized Sand
IWRA
We can walk on sand, but we can't walk on water. Sand is a solid then, right? Engineers think that way, since they put our buildings on top of it. However, in some weird cases, sand can behave like a fluid, bringing destruction to all kinds of things engineers build.

Environment
Construction
Mechanics

Groundwater Flow Model
IWRA
You can see how water flows underneath the Earth's surface. Just as water moves on the surface through rivers, lakes, and oceans, it is also constantly moving below the surface. We explore flow patterns, the travel of pollutants, and how human interaction affects all of it.

Water
Environment
Geology

Hazards of Modern Spillways
IWRA
See firsthand how gear ratios change the way a machine moves. In this demonstration, you can control a Pirate or Trojan Horse robot and swap between different gear assemblies to observe the mechanical trade-off between power and velocity. Experience how high-torque gearing allows a robot to carry more weight, while high-speed setups optimize it for a straightaway sprint across the arena.

Water
Environment
Weather

Interactive Water Table
IWRA
This exhibit allows kids understand how water moves in channels and how this flow of water can change by the use of gates

Water
Environment
Weather

Hydrology Sandbox
IWRA
This educational sandbox + flow table model is all about how the shape of the land influences hydrological processes. We can design a sandy landscape to increase or decrease surface runoff, ponding areas, and infiltration rates to recharge the underlying aquifers.

Water
Environment
Research

Little Big River
IWRA
Real rivers are wavy. Our unique meandering flume will allow you to explore the hydrodynamics of big rivers. We will find out about the impact of river bends on human activities, from how we navigate through them to how sedimentation and erosion affect our infrastructure.

Environment
Water
Kid-Friendly

Protecting our Coasts from Waves
Hydrosystems Lab
Hydrosystems lab.

Water
Environment
Sustainable

Wind Tunnel
IWRA
From the efficiency of cars to the safety of structures, air flow has influence over many aspects of our lives. However, flows are very hard to predict. So, we use wind tunnels: putting objects in a wind tunnel allows us, through some clever tricks, to see how air moves.

Physics
Cars
Mechanics

AstroTech — Outer-Space, Physics, Future-Oriented
Tau Beta Pi
UIUC's First Interactive Planetarium: Explore the Stars like Never Before!

Blast & Bubble Discovery — Chemistry, Kid-Friendly, Physics
X-Time at UIUC
Create mysterious fog bubbles and send mini rockets blasting off as you explore the power of air, pressure, and motion through incredible hands-on experiments.

Electron Transitions — Electronics, Chemistry, Physics
IQUIST
The Electron Transitions demo was created by The Wonders of Quantum Physics at The University of Wisconsin-Madison. This activity challenges students to determine which light source makes the Glow in the Dark stars shine the brightest.

Levitation Demo - Meissner Effect — Physics, Future-Oriented, Good for older students
Illinois Quantum Information Science and Technology Center
Quantum physics is all around us-you just have to know where to look! Come explore hands-on activities of quantum levitation using liquid nitrogen and a superconducting hockey puck, expect a cool experience!

Liquid Nitrogen Ice Cream — Future-Oriented, Kid-Friendly, Physics
The Physics Van
The Physics van will be hosting live demos for Engineering Open House audience at Loomis Laboratory. After each show, members of the Physics Van will serve liquid nitrogen ice cream to guest while supplies last.

Mechanical Waves — Future-Oriented, Physics, Mechanics
IQUIST
Quantum physics is all around us-you just have to know where to look! Come explore the Mechanical Waves demo by Arbor Scientific. Come check out the unique patterns formed at different resonance frequencies.

Physics Outreach and Instruction through New Technologies (POINT) VR — Physics, Outer-Space, Smart Technology
Illinois Center for Advanced Studies of the Universe
Step into Albert Einstein's shoes and discover general relativity through our immersive virtual reality exhibit, created by UIUC physicists. Explore how gravity shapes space and time in a visually stunning and interactive experience. Using virtual reality headsets leads to a 1/4000 risk of seizures due to flashing lights. Users will be warned before use that they should not participate if they have any history of epilepsy or seizures. There is also a risk of walking into objects that the user cannot see, but this risk will be mitigated by having safe, designated play zones that are free of objects and trained volunteers available to assist participants in the headsets.

Physics Playground — Physics, Kid-Friendly, Water
Society for Women in Physics
Come see fun physics demonstrations! We will provide short explanations of the physics concepts behind each demonstration.

Public Quantum Network — Physics, Kid-Friendly, Future-Oriented
IQUIST
Interact with an on-campus node of the Public Quantum Network, where you can make measurements on quantum particles. See for yourself how quantum particles can "affect" each other no matter the distance between them, by doing the experiment for which the Nobel Prize in physics was awarded in 2022!

Society of Physics Students — Physics, Mechanics, Research
Society of Physics Students
Witness the laws of physics in action! The Society of Physics Students is presenting many demonstrations designed to show you the power and wonder of physics!

LOOMIS LABORATORY

Physics Van
Physics Van, Department of Physics
By performing and explaining exciting physics demonstrations, we show our audiences hat science is fun and worthwhile for people who wonder about why the world acts the way it does. We challenge kids' mental picture of what kind of people scientists are. We show them that as long as you want to learn and have fun, there's a world of physics waiting to be discovered!
The Physics Van travels to elementary schools in Champaign-Urbana, IL and towns in the surrounding area. We have been as far as New Mexico, where we collaborated in science outreach with Los Alamos National Labs, Jacksonville, FL, where we performed for area schools and consulted with an emerging outreach program, and Snowmass, CO, where we performed at the Snowmass Science Weekend. A traveling science show which makes physics fun and challenges ideas about what science is and who does it.

Physics
Kid-Friendly
Good for older students

Spectrum Carousel of Gases
IQUIST
The Carousel Spectrum of Gases shows the emission spectra produced by samples of hot gas such as neon, argon, and hydrogen! Come check out the different colors and patterns created by the gases.

Chemistry
Environment
Physics

Triangle Marble Machine
Triangle Fraternity
The Triangle Marble Machine is an interactive marble track designed to showcase fundamental conservation laws in physics.

Physics
Art & Design
Programming

Sound Waves and Magnetism
Materials Research Laboratory
How sound waves work.

Physics
Kid-Friendly
Research

MECHANICAL ENGINEERING LABORATORY

Novel Mobile Robots Lab
Novel Mobile Robots Lab
The Novel Mobile Robots lab (NMbL) develops robots that walk, hop, roll, and more! From legged control and jumping to balance and mechanism design, come see robots move beyond your imagination.

Robotics
Mechanics
Future-Oriented

MATERIALS RESEARCH LAB (Friday)/LOOMIS (Saturday)

Glow in the Dark Laser how
Illinois MRSEC & MRL
Use code to design a shape that a laser will draw on a fluorescent board.

Mechanics
Electronics
Programming

Solar Energy and Circuits
Illinois MRSEC & Materials Research Laboratory
How solar cell/coin battery works.

Electronics
Chemistry
Kid-Friendly

Materials and Lights
Illinois MRSEC
What's inside? Discover Materials Science with I-MRSEC.

Research
Chemistry
Kid-Friendly

Moire Pattern
Illinois MRSEC
Moire pattern.

Kid-Friendly
Research
Physics

MATERIALS RESEARCH LABORATORY

Airing It Out!
MRL Central Research Facilities
Examples of the effects of vacuum on everyday life.

Kid-Friendly
Outer-Space
Physics

Micro Wonders: Nanoscribe 3D Printing and Focused Ion Beam Etching
MRL Central Research Facilities
Embark on a journey where imagination meets innovations: explore Nanoscribe 3D printer and Focused ion beam technology at MRL. Unleash your creativity, choose a picture or word and watch it magically come to life as we etch it onto a human hair or a silicon wafer. Take home a stunning scanning electron microscope image of your microscopic masterpiece (optional) as a souvenir of this unforgettable experience.

Kid-Friendly
Physics
Smart Technology

Optical properties of matter
MRL Central Research Facilities
Discover the intriguing ways that light interacts with objects and how it can be used to look into the internal structure of nature

Kid-Friendly
Physics
Research

The Secret Society on Your Cellphone
MRL Central Research Facilities
Would you ever consider putting your face on a toilet seat? If you think that sounds crazy, think about the last time you talked on your cellphone.. Did you know that you cellphone can have up to 10X MORE bacteria than a public toilet seat?! Come take a close up look at the “secret society” that lives closer to you than you may think.

Biology
Kid-Friendly
Health & Medicine

Wonder of Rechargeable Li-ion Batteries
MRL Central Research Facilities
The overall acceptance and applications of lithium ion batteries including its sustainability

Environment
Sustainable
Research

MATERIALS SCIENCE AND ENGINEERING BUILDING (MSEB)

Bioplastics
Materials Science and Engineering 183
Come discover how you can make plastic from milk!

Sustainable
Chemistry
Molecular State

Build. Snap. Go!
MechSE Makerworks
Build, decorate, and race your own customized rubber band car! Learn about how cars work with 3D printed models from the Jackson Innovation Studio.

Mechanics
Cars
Kid-Friendly

Liquid Metal Magic
Class project for MSE 183
A metal that can melt in your hand: Gallium! Come explore what makes Gallium unique and see it in action!

Chemistry
Molecular Scale
Kid-Friendly

Oobleck!
Keramos Honors Fraternity
Have you ever heard of liquid that turns solid when you punch it? Ever wondered why ketchup and honey flow faster when you squeeze them? Explore the world of Non-Newtonian fluids with Oobleck!

Chemistry
Kid-Friendly
Physics

Troy Harbor Robots
Lego Masters at UIUC
Build, Command, and Conquer! Pilot two custom LEGO battle bots—a Pirate ship and a Trojan Horse—using game controllers in this hands-on engineering challenge! Learn the physics of motion and mechanical design by swapping out functional attachments, each with unique powers. Your mission: strategically move within the custom LEGO arena to disable your opponent’s targets, all while mastering precise control to avoid crossing the boundary line. Discover how different mechanical functions lead to different winning strategies in real-time.

Robotics
Art & Design
Mechanics

Clear by Day, Colorful by Light: Exploring Birefringence with Plastic
Materials Science and Engineering
Watch everyday objects like clear, plastic spoons and Scotch tape turn into colorful artwork just by using light. And learn some cool materials science along the way!
Physics
Art & Design
Good for older student

Smart Fluids: Viscosity on Demand
Materials Science and Engineering
Watch liquids stiffen and relax in response to invisible forces!
Physics
Smart Technology
Molecular Scale

Plastics: Know Before You Throw
Materials Science and Engineering
Learn how plastics are reused and recycled!
Environment
Art & Design
Sustainable

Sustainable Biopolymer Yarn
Materials Science and Engineering
Polymerizing a Greener World, One Stitch at a Time!
Sustainable
Chemistry
Molecular Scale

Electricity from Heat: Thermoelectric Energy Conversion
Materials Science and Engineering
How does a Mars rover generate power with dusty solar panels - A thermoelectric module! Come learn about thermoelectric materials - an exciting type of material that converts heat directly into electricity!
Sustainable
Electronics
Outer-Space

Exploring Curie Temperature
Materials Science and Engineering 183
Heat the metal, lose the magnetism.
Physics
Chemistry
Electronics

Color-Changing Hydrogels, Absorbent Polymers, and You!
Materials Science and Engineering 183
Come see how polymers can absorb hundreds times their weight in water, while being used in medicine!
Health & Medicine
Kid-Friendly
Chemistry

Stretch and Squash: Exploring Poisson's Ratio
Materials Science and Engineering 183
Pull, Push, and Observe!
Mechanics
Kid-Friendly
Physics

Painting with Light & Powering Fabrics
Materials Science and Engineering 183
Come create your own UV-activated blueprints and learn how we use light to make computer chips. Then, touch our smart fabrics to see how silver threads turn ordinary cloth into glowing circuits!
Electronics
Chemistry
Smart Technology

Quantum Levitation Train
Materials Science and Engineering 183
Create your own track for a superconducting levitation train and learn about the science behind it!
Physics
Future-Oriented
Mechanics

NATURAL HISTORY BUILDING

Quantum Levitation Train
Materials Science and Engineering 183
Create your own track for a superconducting levitation train and learn about the science behind it!
Environment
Data Science
Research

Build Your Own Terrarium / Make a Soda Tab Buddy
Sustainability Director
Build your own self-sustaining ecosystem or make a fun craft to keep you company!
Sustainable
Art & Design
Kid-Friendly

INTERACTIVE, INTERDISCIPLINARY SCIENCE

BECKMAN INSTITUTE

OPEN HOUSE

APRIL 10, 9 A.M. TO 4 P.M. &
APRIL 11, 9 A.M. TO 3 P.M.

BASEMENT

Use medical imaging to look inside the body
*Bug out with Bugscope!
Create with the Imagination Station

FIRST FLOOR

Explore three research zones:

- **Orange Zone**: Molecules and materials
- **Green Zone**: Kid-friendly
- **Blue Zone**: Imaging

Room 1005:

- Experience ultra-fun with ultrasound
- Enter the world of Minecraft through virtual reality

THIRD FLOOR

Fight cancer with the Fighting Illini
Turn the teenage brain inside-out
Control an electrochemistry robot
Visit the doctor's office of the future

FIFTH FLOOR

Explore the **Purple Zone**: Health and medicine

*Please note that Friday, these spaces are available by appointment only.

EXHIBITS NATL CENTER FOR SUPERCOMPUTING APPLICATIONS

At NCSA, we aim to bring the brightest minds together to solve the grandest challenges and advance humanity. We do this by harnessing the transformative power of computing, software and data sciences, and fostering a united community dedicated to advancing human knowledge and addressing critical societal challenges through research.

Students Pushing INnovation (SPIN) Internship Program (Friday only)
NCSA
The National Center for Supercomputing Applications (NCSA) has a rich history of fostering innovation, with many of the best ideas coming from motivated, creative undergraduates. NCSA launched the Students Pushing INnovation (SPIN) internship program in 2012. Our program's mission is to provide University of Illinois undergraduates the opportunity to apply and develop skills that address real challenges aligned with their interests. SPIN interns work on cutting-edge research projects in areas such as AI, quantum computing, high-performance computing, data analysis and visualization, cybersecurity, and more topics that align with NCSA's mission. Want to know more about SPIN projects? Join us for in-person demos and meet the outstanding interns driving this program's success!

Research
Programming
Good for older students

3-D Visualization Demonstrations (Friday only)
NCSA Advanced Visualization Lab
Award-winning, cinematic-style visualizations of science data in our 3-D theater

Outer-Space
Molecular Scale
Weather

An integrated platform and software tools for the Marlin fimeware 3D printer (Friday only)
NCSA
Centralized control and records for remote 3D printing.

Programming
Smart Technology
Kid-Friendly

Center for Digital Agriculture (Friday only)
Research Group
As our population continues to grow, we are at the forefront of technology to help our agricultural producers and industries operate efficiently, solve labor shortages, and operate sustainably. We will be showcasing examples of our research, including robots, Artificial Intelligence for Livestock, and different technologies for crop production. You can also learn more about degree programs like CS+Animal Science and CS+Crop Science.

Agriculture
Programming
Smart Technology

Healthy Aging (Friday only)
(dis)Ability Design Studio
The project will demonstrate/illustrate a higher level of ADA compliance that is currently lacking. This model will push the boundaries of human-centered design within the sphere of the lived experience for people living with disabilities and those wishing to age (grow old) in their current homes. Participants will experience vision impairments (cataracts, glaucoma, color blindness, macular degeneration and retinitis pigmentosa) and hearing impairment (tinnitus). This experience support a human-centered approach to healthy aging with this immersive experience. It will bring raise awareness of challenges facing many people within our own families and wider community.

Health & Medicine
Future-Oriented
Design Team

Visualization (Friday only)
NCSA Visualization Program Office
A wide variety of visualizations created at NCSA as part of important research in astronomy, earth science, biology, and many other fields.

Environment
Art & Design
Biology

Design for America (Friday only)
Design for America
Learn about Human Centered Design!

Design Team
Kid-Friendly
Art & Design

Genomics: Personalized Health and Nutrition (Friday only)
NCSA
NCSA Genomics: DNA and Personalized Health

Biology
Food
DNA

Computer Aided Design modeling through AI (Friday only)
National Center for Supercomputing Applications
Step into an interactive design experience where artificial intelligence turns ideas into 3D reality. Visitors can chat with an AI or upload a simple 2D image on a laptop, and watch as the AI instantly generates a corresponding CAD model. The evolving 3D design is displayed live on a large monitor, allowing participants to see how concepts transform into detailed digital objects in real time. This exhibit offers a hands-on introduction to AI-driven design, showcasing how intelligent tools can accelerate creativity, engineering, and manufacturing.

Smart Technology
Design Team
Programming

Illinois Science Explorers NCSA Activities (Friday only)
NCSA
Stop by our table to explore a variety of K-8 activities developed by the Illinois Science Explorers! These quick, hands-on activities showcase exciting research and innovations from the National Center for Supercomputing Applications (NCSA). Try all three activities, each lasting just 5 minutes! These activities make complex computing concepts engaging and accessible for young learners.
1. Binary Code Bracelet – Create a bracelet using beads to represent binary code, learning how computers process information.
2. Advanced Visualization Lab – Complete dot-to-dot worksheets to see how computers turn data into images and videos.
3. Parallel Processing Challenge – Work in teams to complete tasks faster, demonstrating how supercomputers divide work efficiently.

Kid-Friendly
Data Science
Programming

mHealth Chatbot (Friday only)
NCSA
mHealth Chatbot is an interactive AI-powered assistant designed to support healthy aging. The chatbot provides personalized, easy-to-understand guidance on topics such as physical activity, nutrition, and general wellness, while demonstrating how artificial intelligence can be tailored to individual needs. Visitors will be able to engage directly with the chatbot and explore how technology can promote independence and well-being for older adults.

Health & Medicine
Programming
Research

National Center for Supercomputing Applications (Friday only)
OVCRI (Office of the Vice Chancellor of Research and Innovation)
At NCSA, our advanced cyberinfrastructure and expertise provide a hub for transdisciplinary research that unites academic institutions and global companies in search of the answers to the world's most challenging problems and help us meet the needs of future generations.

Kid-Friendly
Research
Programming

PALYIM: Fossil Pollen Analysis using AI and HPC (Friday only)
NCSA
Discovering fossil pollen in massive microscopy images just got easier!

Data Science
Biology
Good for older students

Visual Nutrition (Friday only)
NCSA and PNI
Through integrating AI technologies, such as machine learning, data analytics, large language models, and computer vision, personalized diet plans can now be tailored to individual nutritional needs, preferences, and health goals with unprecedented precision. This new app will allow a person to take a photo of a meal, and it will log nutrients into their personalized nutrition platform which will help design their own nutrition guidance plan.

Health & Medicine
Data Science
Programming

OBSERVATORY

Build the Sky: Engineering a telescope
Astronomical Society at the University of Illinois
Explore how a telescope is balanced, aligned, and moved using an equatorial mount. Rotate the axes, adjust counterweights, and see how Earth's rotation is engineered away.

Outer-Space
Physics
Good for older students

American Society of Civil Engineers (ASCE)
American Society of Civil Engineers (ASCE)
ASCE will have a spin-the-wheel game with civil engineering trivia for visitors of all ages. Prizes will be available for winners. There will also be a concrete cornhole game.

Kid-Friendly
Environment
Construction

Building Across Borders - Engineers without Borders UIUC
Engineers without Borders UIUC
Come test your technical drawing skills, win a prize and learn more about Engineers without Borders!

Design Team
Construction
Environment

Can You Guess the Train Wheel Shape?
American Railway Engineering and Maintenance-of-Way Association Student Chapter
Test different model train wheel shapes on a miniature track and see which ones can handle a curve. This quick, hands-on demo reveals how the real shape of train wheels helps guide trains safely and smoothly along the rails.

Mechanics
Physics
Kid-Friendly

Can You Keep the Lights On? Engineering to Impact
Civil and Environmental Engineering
Step into the role of a decision-maker and help a community recover after a storm through smart engineering choices.

Sustainable
Construction
Weather

Engineers In Action Bridge Program
Engineers In Action Bridge Program
Put your engineering skills to the test! Engineers in Action invites you to help forge the future by becoming engineers for the day! You'll design and build a bridge using limited materials like popsicle sticks, straws, and cardboard. Test how strong your bridge is and learn how engineers use creativity and problem solving to build bridges that connect communities around the world. Build, test, and imagine the future!

Construction
Design Team
Mechanics

Environmental Engineering in Action: Clean Water and Clean Energy
Women in Civil and Environmental Engineering
Explore how environmental engineers protect our planet through clean water, water chemistry, and renewable energy. Watch demonstration water become clear through filtration, test the pH of everyday solutions, and see wind light up an LED in real time!

Environment
Sustainable
Water

Model Trains: A Miniature Railway
American Railway Engineering and Maintenance-of-Way Association Student Chapter
Step into the role of a train operator and run a model train on a HO-scale railroad. Adjust the speed, watch the train move through the scenery, and see how real railroads operate.

Kid-Friendly
Programming
Mechanics

Railroad Interlockings: Keeping Trains Safe
American Railway Engineering and Maintenance-of-Way Association Student Chapter
Come see a demonstration of how trains safely move through junctions and crossings using signal interlockings.

Programming
Cars
Smart Technology

Step into the Future: Pavement Energy Harvesting
American Society of Civil Engineers Transportation & Development Institute (ASCE T&DI)
Walk across our interactive platform and watch your footsteps turn into electricity in real time, powering LEDs or a small sign you choose. This hands-on demo is a scaled version of a pavement energy harvesting concept that could help power low-energy roadside lights and sensors where grid access is limited

Kid-Friendly
Sustainable
Environment

The Shape of Our Rivers and Coasts
IWRA
We know the shape of the land tells water where it should go. But water also moves land around. This interaction forms the Earth's everchanging landscape. Our stream table shows how waves and rivers move through land and how they also can change the land.

Environment
Mechanics
Water

Train Simulator
American Railway Engineering and Maintenance-of-Way Association Student Chapter
Train Simulator: Drive a Real Train. Take the controls and discover what it really takes to stop, steer, and run a train.

Smart Technology
Cars
Kid-Friendly

Concrete Canoe Floating Challenge — Kid-Friendly, Physics, Boats
Concrete Canoe
Will it float?? Explore the science behind Concrete Canoe!

Ghost Electric Motorcycles — Desgin Team, Cars, Future-Oriented
Ghost Electric Motorcycles
Ghost Electric Motorcycle's 2025-2026 race bike with old components of the bike available to interact with.

Illini Electric Motorsports — Mechanics
Illini Electric Motorsports
IEM Car Displayed

Illini Pullers — Design Team, Agriculture, Cars
Illini Pullers
The Illini Pullers are an engineering design RSO that builds quarter-scale pulling tractors.

Illini Solar Car: Forged by Innovation, Driven by the Sun — Cars, Sustainable, Mechanics
Illini Solar Car
Illini Solar Car is a student-led project at the University of Illinois that designs, builds, and races solar-electric race cars in competitions across the nation. This exhibit features our third-generation vehicle, Calypso, which has traveled thousands of miles on solar power alone and won 1st Place at the 2025 Formula Sun Grand Prix (Single-Occupant Vehicle Class).

Illini VEX Robotics: Custom Soccer Cars — Mechanics, Electronics, Kid-Friendly
Illini VEX Robotics
High speed, one on one, intense Soccer Cars. Drive, battle, best.

Miata Turbo Manifold — Cars, Mechanics, Design Team
N/A
A turbo Miata manifold that was designed and built to be able to hold 12psi of boost and gap V8s! Tested using engineering software and simulations, dynamometer pulls, and even ran on the drag strip to push it to its limits!

Natilee — Mechanics, Cars, Design Team
Off-Road Illini Baja SAE
Watch top-tier engineering come to life as an off-road vehicle takes on jumps, tight turns, and rugged terrain in a live performance exhibition. Designed and built by students for the international Baja SAE competitions, this machine showcases cutting-edge drivetrain, suspension, and chassis design.
Design. Build. Compete

RC Trebuchet — Mechanics, Design Team, Cars
Pi Tau Sigma
RC Trebuchet: Experience the power of medieval engineering brought to life with modern controls. Take aim and fire a real working remote-controlled trebuchet as you explore how gravity, leverage, and energy transform into motion. Safe foam projectiles and a guided setup make this exhibit fun and exciting for visitors of all ages.

B[U]ILT AI-Powered Art Canvas
Programming
Electronics
Kid-Friendly
Black, Underrepresented, Indigenous, and Latinx in Tech (B[U]ILT)
Paint with a Wave of Your Hand!
Turn your hands into a paint brush in this AI-powered art experience. Use simple gestures to draw, change colors, and adjust brush styles. Watch your movements come to life on a digital canvas in real time, then save by downloading from our website!

Computer Science Games and Activities
Programming
Data Science
Kid-Friendly
Siebel School of Computing and Data Science
Come explore all you can do with Computer Science and AI! Organized by Siebel School of Computing and Data Science, these two rooms will feature many interactive activities for all ages.

CyberCorps
Programming
Research
Electronics
Illinois Cybersecurity Scholars Program
Learn how to hack and defend networks!

FormFit
Smart Technology
Programming
Health & Medicine
Individual
Harnessing machine learning to give quantitative feedback on physical therapy stretches and exercises.

IMMERSE Center for Immersive Computing
Future-Oriented
Kid-Friendly
Research
Siebel School of Computing and Data Science
Immerse Yourself in the Future of XR. For the exhibit, we will showcase Extended Reality (XR) demonstrations from the IMMERSE community. Participants will have the opportunity to engage directly with XR environments, interacting with a range of research-based scenarios in an immersive, hands-on manner. This fully interactive experience will allow participants to explore the cutting-edge research and technologies being developed within the community.

Latency Racer
Programming
Cars
Smart Technology
Senior Thesis with Professor Angrave
Do you know what the scariest word is in high-speed technology? Latency! Experience latency firsthand in this fast-paced racing game and learn why programmers and network engineers work so hard to minimize it.

ScribeAR: See What You Speak!
Research
Future-Oriented
Smart Technology
ScribeAR Research Group
See What You Speak! With ScribeAR's AR glasses, you can see live subtitles of your conversations!

SIGRobotics
Robotics
Programming
Future-Oriented
SIGRobotics
We are a student-run robotics special-interest group, focused on building open-ended projects, contributing to open-source, and doing quality research in robotics and robot learning.

WCS Dev Ada
Programming
Smart Technology
Data Science
Women in Computer Science
Code. Collaborate. Create. Discover the transformative projects developed by participants of WCS' Dev Ada project cycle. This exhibit highlights innovative software solutions crafted by aspiring developers who have collaborated throughout the year to bring these ideas to life.

WiCYS: Enigma Machine
Programming
Electronics
Smart Technology
Women in Cybersecurity (WiCYS)
Come over and break secret messages with our small-scale enigma machine! If you're interested in cybersecurity, a fan of The Imitation Game, or just want some candy, you should stop by at the Women in Cybersecurity (WiCYS) booth!

Beat Bot
American Society of Mechanical Engineers (ASME)
Experience the rhythms of robotics in this unique musical display! Beat Bot blends engineering and music into a hands-on, interactive experience for all ages!
Music
Robotics
Electronics

Build. Snap. Go!
MechSE Makerworks
Build, decorate, and race your own customized rubber band car! Learn about how cars work with 3D printed models from the Jackson Innovation Studio.
Mechanics
Cars
Kid-Friendly

Big Hero 6 Microbots
Individual
Come watch Big Hero 6's microbots in real life! Control them using camera-sensed hand movement!
Future-Oriented
Robotics
Health & Medicine

Dextera
ASME (American Society of Mechanical Engineers)
Ever wanted to control a robot arm? Come check out ASME's Dexterous Hand Project, the first ever fusion robot that combines a precision robotic arm with a dexterous humanoid hand. You can take control, pick up blocks, stack cups and grab your own candy!
Robotics
Mechanics
Kid-Friendly

Flappy Bird
Women In Mechanical Engineering
Real-Life Flappy Bird — Fully Mechanical, No Screen Required!
Kid-Friendly
Mechanics
Art & Design

Hybrid Piano
American Society of Mechanical Engineers
Our overall goal is to fully design and manufacture an open source silent-system piano system with a retrofitted synthesizer!
Music
Smart Technology
Electronics

Iron Man Helmet
American Society of Mechanical Engineers
Our exhibit is a fully functional Iron Man Helmet! The helmet features a built in Jarvis AI that can respond to voice commands to open/close the mask, turn on/off the LED eye lights, and can answer any other questions that an AI chatbot would be able to answer.
Mechanics
Electronics
Programming

Leader-Wingman Robotics
Korean-American Scientists and Engineers Association
A glimpse into the future of Manned-Unmanned cooperative autonomous robotics.
Robotics
Programming
Smart Technology

NovoPrint 3D-Printing Robot Arm
American Society of Mechanical Engineers
A 3D printed, 3D printing robotic arm.
Robotics
Research
Smart Technology

Power Generation in Doors
American Society of Mechanical Engineers
Revolving doors are constantly generating mechanical energy as people push them. Our design captures that energy to power the door system, making it easier for individuals with limited mobility to operate the door. This way we combine accessibility with sustainability!
Sustainable
Mechanics
Environment

Powerchair Computer Integration
ASME, MediMech
Powerchair Computer Integration — "Computing without limits: your PC wherever you roll." This project builds a modular, flexible computer setup — keyboard, monitor, peripherals, power hardware — designed so a user in a wheelchair can work comfortably from any position — even fully reclined. The system is engineered to adapt to mounting hardware, assistive-power outputs, and accessibility needs, bringing full PC functionality within reach, literally.
Mechanics
Health & Medicine
Prosthetics

Human Squishy-osity — Mechanics, Biology, Health & Medicine
IBB and Hutchens Labs
From Jiggle to Structure: The Mechanics of your Body

Robotic Car Tracer — Robotics, Electronics, Mechanics
Alpha Omega Epsilon
Meet the line following robot! Join us to draw your own path and take control of the robot's journey!

Society of Hispanic Professional Engineers — Programming, Electronics, Mechanics
Society of Hispanic Professional Engineers
This exhibit brings together cultural tradition and modern technology by showcasing a machine that plays Lotería using object tracking and automation. By placing beans onto a Lotería deck with precision, the system demonstrates how machines can interpret visual information and interact with physical objects. Visitors are invited to observe how a familiar, culturally meaningful game is transformed into a hands-on demonstration of computer vision and robotics, highlighting the connection between heritage and emerging technology.

SPD Biomimetic Robot — Robotics, Mechanics, Biology
Sigma Phi Delta
Step into the future of robotics with an interactive, cable-driven robotic hand that moves just like a human hand. Visitors can control the robot using their own hand motions, a joystick, or motion-tracking technology to perform gestures, grasp objects, and explore how robots can imitate human movement. This exhibit showcases cutting-edge soft robotics and human–robot interaction, highlighting real-world applications in medicine.

The Icing on the Machine: A Rube Goldberg Story — Physics, Art & Design, Mechanics
Rube Goldberg Society
Watch a bakery-themed chain reaction end with a delicious reveal!

Step into a world of engineering confections! Our bakery-themed Rube Goldberg machine transforms pastries and coffee beans into a wonderfully clumsy chain reaction, all to accomplish one simple, sweet task: opening a box.

The Marvelous Marshmallow Motion Machine — Mechanics, Physics, Robotics
Society for Engineering Mechanics
See the ingenious construction of mechanical control systems, and how simple gears and chains can forge the devices of the future!

Theta Tau Slime Gizmo — Robotics, Chemistry, Art & Design
Theta Tau
Custom slime made automatically!

VidaCloud - Intelligent Mattress Topper — Health & Medicine, Electronics, Smart Technology
American Society of Mechanical Engineers
Revolutionizing comfort and care! With our intelligent mattress topper, we can detect and prevent pressure ulcers from forming for high-risk patients. We've been told it feels like a "cloud," so come try it out!

TALBOT LABORATORY

Artemis Engineering Challenge — Outer-Space, Kid-Friendly, Programming
NASA Illinois Space Grant Consortium
Join NASA Illinois Space Grant at Engineering Open House and put your problem-solving skills to the test in the Artemis Engineering Trials, inspired by NASA's Artemis program. Visitors can choose from two hands-on challenges: a Rover Coding Challenge, where participants program a rover to navigate lunar or Martian terrain during scheduled 15-minute sessions, or a Spatial Reasoning Challenge, featuring fast-paced puzzles and a competitive leaderboard. Whether you're an experienced coder or just love a good challenge, stop by to try NASA-inspired engineering in action. Teachers are also invited to pick up a free Artemis teaching packet while supplies last.

Centrifuge and Diffusion — Physics
American Nuclear Society — Kid-Friendly
Nuclear Fuel Separation: Centrifuges and Diffusion! — Good for older students

Cloud Chamber — Physics
American Nuclear Society — Molecular Scale
Ever wondered what radiation looks like? A cloud chamber uses differences in temperature to create a supersaturated alcohol cloud, allowing radiation to become visible by leaving trails! — Good for older students

DC Glow — Physics
American Nuclear Society — Future-Oriented
Ever wonder what the fourth state of matter is? Watch the DC Glow plasma discharge to learn about plasma physics, nuclear fusion, and more! — Good for older students

Fusor — Physics
American Nuclear Society — Future-Oriented
Real nuclear fusion! Learn about particle physics, nuclear fusion, and see a “Star in a Jar” with your own eyes. — Molecular Scale

Ion Thruster — Physics
American Nuclear Society — Future-Oriented
What is the future of space travel? Ion propulsion harnesses electrical power and ionized air to generate thrust, like a fan without blades. — Outer-Space

Radiation Scavenger Hunt/Self-Developed Geiger Counter — Sustainable Environment
American Nuclear Society — Good for older students
Ever wondered what those big cooling towers are for? Come learn how a nuclear reactor works, including nuclear fuel, storage, and green energy!

Near-Infrared Diffused Optical Tomography (NIR-DOT) — Health & Medicine
American Nuclear Society — Physics
Ever wondered how medical devices are able to scan your bodies? Come learn the science behind medical imaging using radiation detection! — Kid-Friendly
See Through Anything: How Light Brings the Inside Out!

Mousetrap Reactor & Take Home an Atom — Kid-Friendly
Women in Nuclear — Physics
See a reactor come to life, design an atom of your own, and learn about the science and history behind nuclear engineering with Women in Nuclear! — Sustainable

Plasma Antenna — Future-Oriented
American Nuclear Society — Physics
Did you know you can hear the radio from a plasma? Discover how ionized gas can transmit and receive signals, and the future of radio communication! — Electronics

Plasma Speaker — Electronics
American Nuclear Society — Physics
Experience Music Made by Electrifying Plasma! — Music

Plasma Sterilization — Health & Medicine
American Nuclear Society — Future-Oriented
Touch plasma with your very own hands; learn how plasmas can be used for sterilization and medical applications! — Physics

Plasma Toroid — Physics
American Nuclear Society — Sustainable
A Glowing Plasma Donut! Come Learn about Fusion Reactors — Future-Oriented

Radiation Scavenger Hunt/Self-Developed Geiger Counter — Physics
American Nuclear Society — Kid-Friendly
Detect What You Can’t See: Geiger Counters and Radiation! — Electronics

Egg Drop Challenge
Institute of Industrial and Systems Engineers
In this egg drop challenge, your priceless cargo takes a dangerous plunge. Protect the egg—or pay the price.

Kid-Friendly
Mechanics
Art & Design

IonSpark
ION-I: Electric Propulsion Initiative
A Simplified Heaterless Plasma Cathode for Electric Propulsion: IonSpark is a student-built electron source designed to generate plasma for spacecraft that use ion thrusters. The project represents one of ION-I's first steps toward developing UIUC's first undergraduate-built ion thruster.

Physics
Outer-Space
Research

ISE Senior Design Showcase
Industrial and Enterprise Systems Engineering
See this year's Industrial and Systems Engineering senior design projects and learn about applying ISE principles to solve real-world problems.

Good for older students
Future-Oriented Design Team

Product Design Laboratory
Systems Engineering
Come explore the exciting world of product design and the cool ways that innovation can be brought to your fingertips.

Kid-Friendly
Future-Oriented Design Team

Shark Tank
Institute of Industrial and Systems Engineers
Dive into a fast-paced challenge where teams brainstorm pitch their innovative solutions to an engineering problem.

Art & Design
Good for older students
Kid-Friendly

Supply Chain Maze with Computer Vision
Institute of Industrial and Systems Engineers
Test your problem-solving skills at our life-sized Supply Chain maze. Also, interact with Computer Vision to learn how it can help with optimization problems.

Kid-Friendly
Smart Technology
Programming

1 Clean Fleet

10% Zero Emission
Hydrogen Fuel Cell Electric

90% Low Emission
Diesel Electric Hybrid

2003 Purchased last diesel bus → **2009** Introduced first hybrid bus
2020 Welcomed hydrogen technology → **2023** Retired last diesel bus

2 Green Facilities

Solar Array
(5,500+ panels) powers MTD's hydrogen production station

Rooftop Solar
(1,200+ panels) offsets roughly 25% of energy use at MTD's Maintenance Facility

Sustainable Facilities
Geothermal HVAC, automatic LED lighting, permeable paved parking, and white roof coverings

3 Sustainable Practices

Environmental Policy
ISO certificiations with **audits** to ensure that District policies **reduce our environmental impact**

"Most Innovative" Climate Action Plan
Recognition from Federal Transit Administration (FTA)

District Culture
Awareness training, encouraging active transportation, and opportunities for employees to engage

INTERACTIVE, INTERDISCIPLINARY SCIENCE

BECKMAN INSTITUTE
OPEN HOUSE

April 10, 9 a.m. to 4 p.m.
&
April 11, 9 a.m. to 3 p.m.

BASEMENT
Use medical imaging to look inside the body
*Bug out with Bugscope!
Create with the Imagination Station

FIRST FLOOR
Explore three research zones:
Orange Zone: Molecules and materials
Green Zone: Kid-friendly
Blue Zone: Imaging
Room 1005:
Experience ultra-fun with ultrasound
Enter the world of Minecraft through virtual reality

THIRD FLOOR
Fight cancer with the Fighting Illini
Turn the teenage brain inside-out
Control an electrochemistry robot
Visit the doctor's office of the future

FIFTH FLOOR
Explore the **Purple Zone**: Health and medicine

*Please note that Friday, these spaces are available by appointment only.

EOH CENTRAL COMMITTEE

Maddie Conrad
Co-Director
Physics and French
Senior

Aparna Kamath
Co-Director
Physics
Senior

Hiruni Bopearatchy
Secretary/Treasurer
Mechanical Engineering
Junior

Ella Greer
Director of Facilities and Equipment
Aerospace Engineering
Senior

Kate Pactol
Director of Exhibits
Mechanical Engineering
Junior

Adithi Bikkavilli
Director of Traffic & Safety
Computer Engineering
Junior

Shivaditya Gohil
Senior Corporate Director
Computer Engineering
Graduate Student

Roshni Mathew
Senior Corporate Director
Computer Engineering
Senior

Archir Luhana
Junior Corporate Director
Electric Engineering
Junior

Shreya Gosavi
Director of Special Events
Computer Science + Crop Sciences
Junior

Manasi Bhargava
Director of Special Events
Engineering Mechanics
Junior

Ishani Patel
Director of Marketing
Electrical Engineering
Senior

EOH CENTRAL COMMITTEE

Sarah Su
Director of Marketing
Bioengineering
Sophomore

Riya Karkhanis
Director of Marketing
Computer Engineering
Junior

Lillian Wang
Director of Visitor's Information
Computer Science
Sophomore

Atsi Gupta
Director of Visitor's Information and Sustainability
Computer Engineering
Senior

Sydney Pavlik
Middle School Design Competition Director
Material Science and Engineering
Sophomore

Aryaa Rathi
High School Design Competition Director
Computer Science
Junior

Faraz Bhuiyan
Startup Showcase Director
Mechanical Engineering
Senior

Alyssa Huang
Director of Judging and Awards
Electrical Engineering
Graduate Student

Kushl Saboo
Director of Advancements
Computer Engineering
Senior

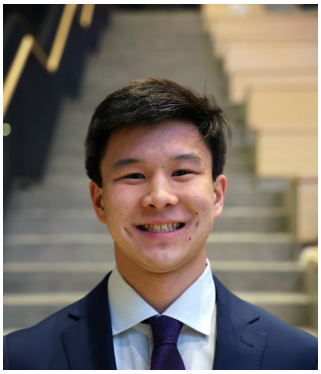
Divya Bendigeri
Senior Director of Hospitality
Bioengineering
Senior

Mohannad Alghamdi
Director of Hospitality
Materials Science and Engineering
Sophomore

Shaan Doshi
Senior Director of Technology
Computer Science and Physics

EOH CENTRAL COMMITTEE

Vani Ramesh
Junior Director of Technology
Computer Science
Junior



Nathan Chan
Junior Director of Technology
Material Science and Engineering
Freshman

Tessa Waldhoff
Director of Outreach
Bioengineering
Sophomore

Brandon Kiene
Junior Director of Outreach
Engineering Mechanics
Freshman

Tushar Jain
Junior Director of Outreach
Industrial Engineering
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