STEM on the Lawn, Presented by UF | Florida Semiconductor Insitute (FSI)

Booth #	Exhibitor	Activity	Activity Description
1	PICadvanced US LLC	Photonic Integrated Chip Design Workflow	Design an integrated photonic circuit using our in-house software.
2	Play Piper	Experience Hands-On STEM with Play Piper!	Come experience hands-on STEM and build skills in coding, circuitry, and computer science with Play Piper! We blend physical building and visual storytelling to inspire the next generation of STEM innovators. With our products, students in Grades 3-8 learn the basics of engineering, coding, and computational thinking - all while building confidence, developing STEM skills, and providing a bridge to career-connected learning. Learning is fun when kids play, so let's Play Piper!
3	Flapmax	FLAP-0 AI CUBESAT FOR NEXT-GEN SCIENCE EXPERIMENTS IN K-12	Explore how satellites the size of a tissue box can run powerful AI models in space! Flapmax's Flap-0 is a next-generation educational Cubesat platform that uses advanced semiconductor AI technology to help students design real space science missions — from monitoring Earth's climate to detecting radio signals. Students can build, simulate, and explore their own satellite experiments, all powered by the same energy-efficient chips used in today's most advanced tech.
4	Florida Semiconductor Institute	Semiconductor Science in Action: Circuits, Wafers, and Creativity	Dive into the world of semiconductors with three engaging activities: experiment with Play-Doh circuits to see electricity in motion, examine a wafer under a microscope, and enjoy semiconductor-inspired coloring sheets. This hands-on experience makes complex technology accessible and fun.
5	Swamp Launch	Swamp Launch Rocket Showcase	Our first part of the demonstration will include a talking phase. We will bring one of our big competition rockets and explain the stages it goes through based off the launch video. Our second part of the demonstration will be a rocket launch preferably one of the little rockets with A motors. If not, we will use our water bottle rockets for the demo.

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6	Dream Team Engineering	Biomedical Projects for a Better Tomorrow	We will be exhibiting three of our organization's design and software projects. They have been (or will be) implemented with local physicians and doctors to better the experience for patients and health professionals. Come look at our interactive projects and see the impact YOU can have!
7	Women in Electrical and Computer Engineering	Homopolar Motor	Creating a motor with copper wire, magnets and batteries to spin paper figurines.
8	New Tech Now	Paper Circuits - partnership with Arts 4 All Florida	New Tech Now will be partnering with Arts 4 All Florida to offer a Paper Circuit art activity. We would like to be located next to Arts 4 All so we can share table space and volunteers.
9	Arts 4 All Florida	Paper Circuits - Light up greeting card	Students create a light-up greeting card by building a simple paper circuit with copper tape, an LED, and a coin battery hidden inside. When the card is pressed or closed, the circuit completes and the LED lights up, bringing their artwork to life. This hands-on activity introduces basic electronics while encouraging creativity. All supplies included. This activity takes approx 5-10 min to complete on-site.
10	Cade Museum for Creativity and Invention	Fun with Optics	Explore the world of optics! Let's learn how light behaves, how it influences our perception, and how an optical illusion works!
11	Ozobot	Ozobot Chip Quest: Spark the Circuit!	Program Ozobots to navigate circuits, learning how semiconductors power tech through fun, hands-on coding and interactive challenges.
12	Hands On Gainesville, Inc.	The Konisberg Bridge, Tying Shoelaces and other Topology Activities	Explore how pentominos, tangrams, and the Konigsberg bridge puzzle and tying your shoes relate to semiconductors and even how they can enhance literacy skills.

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13	National Society of Black Engineers Gators Chapter	Meet Meccanoid!	Meccanoid is a programmable, personal robot kit by Meccano (Spin Master) designed for children and hobbyists to build and program their own interactive robot. It features realistic movements via six motors, LED eyes, voice recognition, and various programming methods including learned movement (LIM), ragdoll mode, and app-based drag-and-drop programming. The finished robot can communicate, tell stories, play games, and perform dances, serving as a robotic companion and an educational tool for learning about robotics and coding.
14	TutorGNV, LLC	Math Magic	Our tutors will guide learners through several interactive math exercises designed to seem like magic, but will actually be based on known math concepts. Interactive exercises will include creating math objects such as Mobius loops and guessing the correct number using a series of mathematical operations. We may present several interactive activities depending on grade level of audience.
15	UF AIChE	Thinking Like a ChemE: Building a Humanitarian Filter	Students are tasked with building a water filter using common objects. Students must think critically while using very basic separation principles to analyze how a water filter can be made from common everyday objects. The students must figure out how to remove large particles (dirt), medium sized particles (food color and glitter), and microscopic particles (H+ ions from the vinegar) using various materials.
16	American Society of Mechanical Engineers	ASME x Robotics	Robotics demonstration from previous competition models. Mostly visual demonstration with possibility for interaction.
17	EQuIPD Program/Department of Materials and Engineering	STEM in a BOX	We will debut activities from our camps in a box and student activities in a box. These will include our microbit or arduino focused activities, and also our resistor tube lesson kit. We are combining the work of Dr. Ruzycki and Dr. Hennig.

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18	Audio Engineering Society, UF Chapter	Exploring Sound with Electronics	Students will get hands-on with a variety of noisemakers and simple synthesizers created by the UF Audio Engineering Society (AES) Chapter. These projects let you twist knobs, push buttons, and explore how electronics can make music and noise.
19	Astraeus Space Institute	Rocket Launch & Button Making	Design and launch your own rocket. Make a button with a cool FSI Lawn Day fact.
20	Tau Beta Pi	DIY Catapult	Build and test a mini catapult using only materials from a mystery supply bag! Participants will engineer their design to launch a soft projectile as far or as accurately as possible, experimenting with lever arms, pivot points, and tension. This activity encourages creativity, problem-solving, and iteration while teaching basic physics and engineering principles.
21	Museum of Earth Science Santa Fe College	Making History: Create Your Own Fossil	Learn about fossilization by seeing real specimens from the Santa Fe Museum of Earth Science, then creating your own! Participants will use specimens from the Santa Fe Museum of Earth Science to create molds in air dry clay. They will then have their own fossil to take home with them.
22	Santa Fe College Teaching Zoo	TBD	TBD
23	GRRATE Summer Institutes at Santa Fe College	GRRATE Summer Institutes - Gadgets and Grooves	We will have a 2-part station. One table we'll have a robot (or two) for students to control. We will also have a hydro dip station for wooden craft sticks that will then be made into harmonicas for participants to take with them.
24	UF Society of Women Engineers (SWE)	SWE Tech & Test	Dive into the world of circuits and motors as you study our innovative design team projects! Created by current SWE members, these exhibits showcase the vast places engineers have left an impact, from the skyline of New York City to the depths of the ocean. Students will also get to work on and complete their own Arduino circuits!
25	Florida Engineering Society	Candy Catapult	Building a small catapult out of rubber bands and popsicle sticks. We will have candy that the students can use to catapult at a small target.

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26	Lauda-Brinkmann		Thermal controls company involved in point of use semiconductor cooling devices would be interested in displaying a thermoelectric demo box alongside a piece of equipment that uses a thermoelectric device, one of our F-Gas free benchtop chillers. The "Demo box" is one of our Peltier chips or a thermoelectric device which turns electricity into heating or cooling at the control of a dial switch where students can place their hand on the chip to see how cooling and heating can be done with the same semiconductor device without compression cycles and harmful fluorinated gases. The purpose of the demo is to show how semiconductors have enabled new compact ways to cool other processes, including semiconductor manufacturing itself, and for more advanced students, to talk about material science and how thermoelectric devices work and show how they can be integrated into commercial products.
27	Society of Women in Physics (SWiP) and Women in Astrophysics and Astronomy Mentorship Program (WAAM)	Physics Demos	Attendees will have the opportunity to use a solar telescope to look at the sun, as well as view a couple other small demos. These may include hand boilers and a Van de Graaff.
28	Florida Museum	Butterfly launching activity	Discover the magic of butterfly flight with the Florida Museum! Kids can explore the forces that help butterflies soar, then launch their own fluttering creations into the sky. It’s hands-on, high-flying fun for all ages. Don’t forget to swing by and say hello!
29	University of Florida Math Circle	University of Florida Math Circle	Join the UF Math circle for some selected mathematical games and activities from our weekly meetings, including the game 24 which is a test of arithmetic and ingenuity.
30	Society of Physics Students	Fun Physics Demonstrations!	We will bring a variety of physics demonstrations showcasing basic physics concepts. These concepts may include circuits, magnets, rotational inertia, or optics.

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31	UF Center for Catalysis/UF Chemistry	"Boo" Bubbles	"Boo" bubbles are soapy bubbles generated from the sublimation of dry ice. A wand is attached to a jar containing water and dry ice - when the wand is dipped in a soapy solution, the CO2 gas emitted from wand tip creates spooky, foggy "boo" bubbles.
32	Society of Hispanic Professional Engineers	SHPE Jr. STEM Activities: Robot Goalie	At our tabling event, the SHPE Jr team will highlight our volunteering efforts with SHPE Jr high school chapters, inviting them to the SHPE Jr Conference hosted at UF, while also sharing our impact through STEAM Nights, bi-weekly STEM volunteering, math tutoring, MentorSHPE Jr program, and "Equipando Padres" events at local K-12 schools. For the featured activity, we will present the robot goalie developed last year by the Technology Cabinet: a multidisciplinary project combining mechanical mobility, 3D printing, programming, and machine automation to block soccer shots. Since the original cardboard frame was too heavy, the design team has reunited to build a lighter structure and restore its functionality. If the robot goalie cannot operate, we will run a biomedical/robotics-inspired backup activity such as building simple prosthetic hand models using string and cardboard, allowing students to explore biomechanics, mobility, and problem-solving in a fun, hands-on way.
33	Solar Gators	Arduino Boards	Get hands-on with Arduino boards
34	Phenomenal STEMist and Associates, LLC	Microscopes, Molecules & Milestones: Celebrating African American Scientists	This hands-on exhibit invites visitors to explore science through working microscopes, anatomical and molecular models, and an inspiring poster of famous African American scientists. Participants can view specimens, handle models, and build their own chemical structures to better understand molecular science. The activity blends interactive learning with history, celebrating diversity in STEM while encouraging participants to see themselves as future innovators.
35	Shiva Robotics Academy	LEGO Robotics Activity	Students will customize and code with LEGO Pinball game. Students will do bit of building and do block based coding. They will see robot demonstrations.

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36	Koding Kids: Adventures in STEM	Meet the Koding Kids	The Koding Kids book series introduces children to the fun and creativity of coding through hands-on, interactive activities. At our booth, participants can explore Scratch programming on computers and bring their own animations or games to life. They'll also get to try an engaging 8-bit activity to simulate counting in binary, connecting computer science concepts to real-world technology. This experience is designed to spark curiosity, build problem-solving skills, and make coding accessible.
37	Digital Worlds Institute	Virtual Reality Experience	Students will experience a virtual reality game developed by the research teams at University of Florida, designed to teach the fundamental steps of semiconductor manufacturing. Using MetaQuest VR headsets, students will engage with an AI-powered virtual teaching agent and explore key concepts related to advanced semiconductor packaging technology in an immersive, hands-on environment.
38	Nanoscale Research Facility (NRF)	Spy(der)ing on the nanoworld	Are your spidey senses tingling? We'll be getting up close (very up close ~50,000X magnification!) and personal with a tiny jumping spider using our Scanning Electron Microscope (SEM). Our operator will be virtually beaming over the images, and you get to be the co-pilot. You can also use one of the light microscopes "in the field" to zoom in on microchips, insects, and more!
39	PK Yonge FTC Robotics Team Steel Eels	Robotics Showcase	Steel Eels is an FTC Robotics Team at PK Yonge. The students will showcase their robot, explain the game challenge, and more about FIRST Robotics. They can also do a STEAM Activity.
40	PK Yonge/High-School Engineering and FIRST Robotics Program - Team 4118 - Roaring Riptide	Roaring Riptide Circuit Spin Lab	Ready to build a cool spinning toy powered by electricity? You're going to make a simple circuit that makes this motor spin a paper pinwheel. When you connect the battery, the motor moves, turning the spinner. Just like robots use motors, you're building a mini motorized machine!

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C3-D	Academy of Robotics and Engineering (Professional Academies Magnet at Loften High School)	Robotag	We will have a tag game with 3-4 robots in a small field area. They will play freeze tag together.