Week 1: June 6th - 10th

01 Creativity 1 9:00a-10:30a

(1st grade) Students work in small teams using LEGO to design and build solutions to problems. **NOTE:** This camp is designed to be fun for everyone. Challenges each day will be theme based. Awards will highlight different design principles.

02 Creativity 2 9:00a-10:30a

(2nd-3rd grade): Students work in small teams using LEGO to design and build solutions to problems. Each team is mentored by a high school robotics team member. **NOTE:** All students should be able to work with others to design more functional ideas out of LEGO.

03 Manufacturing 9:00a-10:30a

(4th-8th grade): In this camp, students will learn the design and set up required to turn a computer designed idea into a physical product. Each student creates their own take home project. **NOTE:** Students will be in a manufacturing setting. They must follow directions to ensure safety.

Week 1: June 6th - 10th

04 Design 1 11:00a-12:30p

(1st-4th grade): Using 3D Modeling software, students learn 3D design fundamentals. An emphasis is placed on the many fun features. **NOTE:** Many high school team members will be available for 1-on-1 support; this camp is for students with no computer design experience.

05 Design 2 11:00a-12:30p

(5th-8th grade): Students learn design fundamentals to create complex 3D models and assemblies. **NOTE:** Students must have had some design experience (in camp or other) AND be very comfortable with software on a computer.

06 Software and Electronics 11:00a- 12:30p

(4th-8th grade): In software and electronics camp, students will participate in hands-on activities highlighting the importance of coding to control hardware devices. Students will learn how to talk to sensors and mechanical devices that are used everyday in robotics.
NOTE: No experience necessary.

Week 2: June 13th - 17th

07 Build-a-Bot with VEX IQ 9:00a- 11:00a

(2nd-5th grade): Students are put into teams to design, build, program, and compete with a robot using the VEX IQ kits. The last day, families are invited to cheer on campers in their tournament matches. **NOTE:** This is a beginning camp, however students must be able to work with others to build a robot.

08 Build-a-Bot with VEX EDR 12:00p- 4:00p

(6th-8th grade): Our most popular camp; students are put into teams to design, build, program, and compete with a robot using the VEX EDR kits. Teams will compete on a playing field with families in the audience. **NOTE:** This is our highest level camp. Students must be able to stay interested in robots for 4 hours per day. Each team member will have multiple team roles.

Week 1 | JUNE 6-10
Development Topics
Current 1st - 8th graders
$80

Week 2 | JUNE 13-17
Build-a-Bot Competition
Current 2nd - 8th graders
$100 & $150

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Indiana

Summer Camp experiences feed into these programs:

FIRST Robotics
For Inspiration & Recognition of Science & Technology

FOUR PROGRAMS - ONE MISSION
To inspire the next generation of science and technology leaders who enter the workforce and change the world.

FIRST LEGO LEAGUE JR.	FIRST LEGO LEAGUE	FIRST TECH CHALLENGE	FIRST ROBOTICS COMPETITION
Captures young curiosity by exploring real-world scientific challenges, learning teamwork, and working with motorized LEGO elements	Elementary and middle school-aged students research a real-world engineering challenge, develop a solution, and compete with LEGO-based robots of their own design	Teams of middle and high school-aged students are challenged to design, build, and program a robot to play a floor game against other teams' creations	High school-aged teams compete head-to-head on a special playing fiend with robots they designed, built, and programmed
GRADES K-4	GRADES 4-8	GRADES 7-12	GRADES 9-12

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PENN ROBOTICS INSPIRING DESIGN and ENGINEERING

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Penn Robotics Summer Camps

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WEEK 1: **JUNE 6-10**
WEEK 2: **JUNE 13-17**

GRADES 1st - 8th

ALL STATES, ALL SCHOOLS, ALL STUDENTS