



# 2017 Summer Camp

## 4th - 8th Grade

**2017 Summer Camps will begin June 19<sup>th</sup> and be offered through the week of August 21<sup>st</sup>**

These camps are for kids who will be in 4th-8th grade in the 2017-2018 school year. Camp sessions are week long, half-day programs. Sign up for a morning or afternoon camp, or **register for Lunch and stay at BadgerBOTS all day**. All camps are \$275 for a one-week, half day session.

### LEGO Robotics and Programming

Campers work with partners to learn to build and program a LEGO Mindstorms EV3 robot. Each programming and building lesson is paired with different robot challenge fields. Teams must use what they have learned to earn as many challenge points as possible within the time limit. This camp is suitable for all levels of experience.

**Summer 2017 Challenge Theme:** Escape Room!

### LEGO Robot Builder

The LEGO Mindstorms EV3 kits contains hundreds of LEGO pieces – but what can you build with them all? In this camp, students will learn about constructing different LEGO mechanisms to make robots that drive, walk, lift, grab and more. Expect to build something new each day. LEGO Robot Builder is suitable for all levels of experience.

### Scratch Game Design and Development

In this camp we'll learn to make animations and games using Scratch. Participants will learn real programming concepts such as logic, variables, and loops. Campers will also work on idea sharing and giving good feedback as the class collaborates to improve games and generate new ideas! This camp is suitable for any level of experience.

### Tinkercad 2D and 3D Design

This camp is all about using a computer to create 2D and 3D designs and artwork. Tinkercad is a CAD (computer-aided design) program which we will use to create digital objects which will then be printed on our 3D printers. We will work on several projects and learn not just design-and-print, but also troubleshooting and design improvement. This class is for all levels of experience, but students should be comfortable using a computer mouse with precision.

### Minecraft Modding

Minecraft Modding will introduce how to make your own personal modifications to Minecraft using an online modding program and Java. Over the week we will use Minecraft to learn about if-statements, loops, functions, variables, parameters and programming in a 3D coordinate system while we summon creepers and get struck by lightning. Minecraft Modding is suitable for all levels of experience.

### WaterBotics

Sign up for Robot Swimming lessons this summer! In this camp we will turn our LEGO robot kits into submersible Remote Operated Vehicles (ROVs) and drive them around in the BadgerBOTS Robot Pool. Learn about buoyancy, propulsion, gears and programming. Campers should have some previous experience with LEGO Mindstorms for this camp.

### App Inventor

App Inventor is a fun and easy way to begin learning how to create Android apps for phones and tablets. The layout of App Inventor is similar to Scratch, with commands that “click” together, making getting started easy. App Inventor goes beyond Scratch by taking advantage of Bluetooth, GPS, phone sensors and WiFi and allows campers to start creating the apps they have always wanted to make. This class is best for students with previous experience with some coding, like Scratch.

**Stay for Lunch Group – \$50 per week.** Can't decide on just one camp to attend? Want a full-day camp option? Sign up for a morning and afternoon camp and stay at BadgerBOTS for lunch! Send campers to BadgerBOTS in the morning with a packed lunch.



BadgerBOTS Robotics Education Center

(608) 831-6479  
7615 Discovery Dr. Middleton, WI 53562  
[www.badgerbots.org](http://www.badgerbots.org)

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# 2017 Summer Camp Schedule

## 4th - 8th Grade

Register Online at  
[www.badgerbots.org/summercamp](http://www.badgerbots.org/summercamp)

	Morning Camps 8:30 AM - Noon	Lunch Noon - 1	Afternoon Camps 1:00 - 4:30 PM
June 19 - 23 Week 1	LEGO Robotics & Programming Minecraft Modding	Lunch Week 1	Scratch Game Design Tinkercad
June 26 - 30 Week 2	Waterbotics App Inventor	Lunch Week 2	LEGO Robot Builder Minecraft Modding
July 3 - 7 Week 3	LEGO Robot Builder Minecraft Modding	Lunch Week 3	LEGO Robotics & Programming Scratch Game Design
July 10 - 14 Week 4	Scratch Game Design Minecraft Modding	Lunch Week 4	Waterbotics Tinkercad
July 17 - 21 Week 5	LEGO Robot Builder Tinkercad	Lunch Week 5	Scratch Game Design App Inventor
July 24 - 28 Week 6	Waterbotics App Inventor	Lunch Week 6	LEGO Robotics & Programming Tinkercad
July 31 - Aug 4 Week 7	LEGO Robotics & Programming Tinkercad	Lunch Week 7	LEGO Robot Builder Minecraft Modding
August 7 - 11 Week 8	LEGO Robot Builder App Inventor	Lunch Week 8	Waterbotics Minecraft Modding
August 14 - 18 Week 9	Minecraft Modding Scratch Game Design	Lunch Week 9	LEGO Robotics & Programming Tinkercad
August 21 - 25 Week 10	Minecraft Modding	Lunch Week 10	App Inventor



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