



BadgerBOTS Robotics Education Center

2019 Afterschool STEM Classes

BadgerBOTS Afterschool classes are for students currently in **3rd-7th grade**.

Class fees are between \$100 – \$125 per student.

Classes will be **one day a week for 2 hours from 4:30-6:30 PM** over 5 weeks.

Minecraft Modding:

Session 1: Mondays Jan 28 - Feb 25

Session 2: Tuesdays March 12 - 9

Create **Minecraft** mini games like battle arenas and Lucky Blocks all while learning about coding if-statements, loops, functions, variables, and methods in **Java**. As we code together, the class will also test out our mods by playing Minecraft all together!

Roblox Game Dev:

Session 1: Tuesdays Jan 29 - Feb 26

Session 2: Thursdays March 14 - April 11

Learn the basics of developing games in **Roblox**. Plan out the steps of game creation, then program game rules in **Lua**, and finally learn to use Roblox Studio to create and modify the look of your games.

LEGO Robotics:

Session 1: Wednesdays Jan 30 - Feb 27

Session 2: Mondays March 11 - April 8

Build and program **LEGO Mindstorms EV3 robots**. Weekly challenges will test students to make observations, improve their designs, and practice the engineering design process.

3D Printing Lab:

Session 1: Thursdays Jan 31 - Feb 28

Learn how to use a computer to design and modify 3D designs and artwork with **Tinkercad**, a beginner CAD program. Students will work on various design challenges focusing on developing their skills, as well as their own projects, to be 3D printed on our 3D printers.

Scratch Game Design:

Session 1: Fridays Feb 1 - March 1

Session 2: Wednesdays March 13 - April 10

Computer programming concepts and techniques will be taught as students create projects using **Scratch** around the theme of Game Design. Small-group classes will accommodate students with any level of experience with Scratch.

App Inventor:

Session 2: Fridays March 15 - April 12

App Inventor is a fun and easy way to begin learning how to create **Android apps** for phones and tablets. The class will use drag and drop code to learn about using variables, procedures, and lists while making app games.