



# Williamson County 4-H ROBOTICS



## Overview of Robotics Classes

### INTRO to Robotics and Programming

**Grades:** Youth in Grades 4-6    **Prerequisites:** None

Using a “block based” programming language, such as Scratch, this class introduces the foundational concepts of computer programming. Also, hands-on opportunities to program robots will be explored. This class is offered for youth in grades 4-6.

#### Meeting Dates on Thursdays from 5:00 – 6:15 PM:

October 3, 2019	February 6, 2020
November 7, 2019	March 5, 2020
December 5, 2019	April 2, 2020
January 16, 2020	May 7, 2020



### ROBOTICS 1: Beginner Robotics Programming

**Grades:** Youth in Grades 6-8    **Prerequisites:** None

This class offers youth hands-on opportunities to program and test robots using Lego Mindstorms EV3 kits. For youth who are new to robotics, this class covers introductory programming techniques. This class is offered for youth in grades 6-8.

#### Meeting Dates on Tuesdays from 5:00 – 6:15 PM:

September 24, 2019	January 14 & 28, 2020
October 8 & 22, 2019	February 11 & 25, 2020
November 12, 2019	March 10 & 24, 2020
December 10, 2019	April 14, 2020



### ROBOTICS 2: Intermediate Robotics Programming and Designing

**Grades:** Youth in Grades 7 – 9  
**Prerequisites:** Robotics 1 or Similar Experience

For youth who have completed Robotics 1 or an introductory robotics class that covers the basics of moving and sensors, Robotics 2 covers intermediate designing and programming topics using Lego Mindstorms EV3 kits. This class is offered for youth in grades 7-9.

#### Meeting Dates on Tuesdays from 6:30 – 8:00 PM:

September 24, 2019	January 14 & 28, 2020
October 8 & 22, 2019	February 11 & 25, 2020
November 12, 2019	March 10 & 24, 2020
December 10, 2019	April 14, 2020



### ROBOTICS 3: Advanced Robotics Programming and Designing

**Grades:** Youth in Grades 8-12  
**Prerequisites:** Robotics 1 and 2 or Similar Experience

For robotics enthusiasts who have a strong background in Lego Mindstorms EV3 building and programming or who have completed Robotics 1 and 2, this class offers youth the opportunity to build and program their own custom designed robots and explore different programming platforms. This class is offered for youth in grades 8-12.

#### Meeting Dates on Thursdays from 6:30 – 8:00 PM:

September 19, 2019	January 16, 2020
October 3 & 17, 2019	February 6, 2020
November 7 & 21, 2019	March 5, 2020
December 5 & 19, 2019	April 2 & 16, 2020



### Meeting Location

Classes are held at the  
Williamson County Ag Expo Park  
4215 Long Lane, Suite 200  
Franklin, TN 37064



### Registration Fee

Robotics 1, 2 and 3 Classes cost \$100 per student. Intro to Robotics costs \$75 per student. Robots and laptops are provided for use in the class.



### To Join a Class

Return registration form and class fee to:  
Williamson County Extension  
4215 Long Lane, Suite 200  
Franklin, TN 37064



### Questions?

We are happy to answer any questions you might have about the Williamson County 4-H Robotics classes. Please email your questions to: [ag.robotics@williamsoncounty-tn.gov](mailto:ag.robotics@williamsoncounty-tn.gov)



# Williamson County 4-H STEM Registration Form 2019-2020

Student Name: \_\_\_\_\_

School/Homeschool \_\_\_\_\_ Grade: \_\_\_\_\_

Email: \_\_\_\_\_

\*Used for email communication by instructors, please put 1-2 email addresses you check & read regularly.

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Gender: \_\_\_\_\_

Parent Name(s): \_\_\_\_\_

Race/ Ethnicity:  White Non-Hispanic  Black Non– Hispanic  Hispanic  
 Asian/ Pacific Islander  American Indian/ Alaskan Native



## To Join a Class Mark the Group(s) you are registering for:

- |  |  |
|--|--|
| <input type="checkbox"/> <b>STEM Fun 1 4:00</b> <b>\$100</b><br>Grades 4-5         | <input type="checkbox"/> <b>CSI (Crime Scene Investigation) \$100</b><br>Grades 8-12 |
| <input type="checkbox"/> <b>STEM Fun 1 6:00</b> <b>\$100</b><br>Grades 4-5         | <input type="checkbox"/> <b>STEM Jr. Solar Sprint \$25</b><br>Grades 5-8             |
| <input type="checkbox"/> <b>STEM Fun 2</b> <b>\$100</b><br>Grades 5-8              | <input type="checkbox"/> <b>Raspberry Pi \$100</b><br>Grades 8-12                    |
| <input type="checkbox"/> <b>Intro to Robotics &amp; Program \$75</b><br>Grades 4-6 | <input type="checkbox"/> <b>Python Programming \$100</b><br>Grades 8-12              |
| <input type="checkbox"/> <b>Robotics 1</b> <b>\$100</b><br>Grades 6-8              | <input type="checkbox"/> <b>3D Printing \$100</b><br>Grades 8-12                     |
| <input type="checkbox"/> <b>Robotics 2</b> <b>\$100</b><br>Grades 7-12             | <input type="checkbox"/> <b>Engineering Fundamentals \$100</b><br>Grades 5-8         |
| <input type="checkbox"/> <b>Robotics 3</b> <b>\$100</b><br>Grades 8-12             |  |



**Registration Fee** Payment should be included with registration form.

Payment options: check or exact cash. Make checks out to: "Williamson County 4-H."

**Mail or Deliver to:** Williamson County 4-H, 4215 Long Lane, Suite 200, Franklin, TN 37064