

Robotics

1. In order to exhibit in the Robotics, the 4-H member must be enrolled in **Robotics Explorer, or Robotics Probe.**
2. See General Project Rules
3. Each County may submit 2 entries for State Fair.

Class 01- Robotics Explorer (Chapter 1)

Create a computer slide show or science board display describing 3-5 examples of robots and their uses in the real world. Label and describe what makes each robot more than a machine or computer.

Class 02 – Robotics Explorer (Chapter 2)

Use your robot to demonstrate or create a display of a program you wrote to make a robot travel in a square. Provide a narrative that describes our experience designing and troubleshooting this program.

Class 03 – Robotics Explorer (Chapter 3)

Use your robot to demonstrate or create a display of a line tracking program you wrote that uses input from a sensor(eg touch, light). If exhibitor brings a robot, bring your own mat or track for demonstration purposes. Provide a narrative that describes your experience designing and troubleshooting this program.

Class 04- Robotics Explorer (Chapter 4)

Use your robot to demonstrate or create a display of a line tracking program you wrote that combines input from 2 sensors. If the exhibitor brings a robot, bring your own mat or track for demonstration purposes. Provide a narrative that describes your experience designing and troubleshooting this program.

Class 05 – Robotics Probe (Chapter 1)

Use your robot to demonstrate or create a display of a line tracking program you wrote that uses a rotational sensor to determine distance traveled or to control turns. If the exhibitor brings a robot, bring your own mat or track for demonstration purposes. Provide a narrative that describes your experience designing or troubleshooting this program.

Class 06 – Robotics Probe (Chapter 2)

Use your robot to demonstrate or create a display of an experiment you designed to test the travel distance and speed of a robot designed using different gears. Provide a picture of the robot you designed with all gear types, pulleys and belts labeled. Provide a narrative that analyzes the results of your experiment.

Class 07- Robotics Probe (Chapter 3)

Use your robot to demonstrate or create a display of a line tracking program that you wrote that uses advanced programming strategies, such as using containers, loops and subroutines and using combined sensors. If the exhibitor brings a robot, bring your own mat or track for demonstration purposes. Provide a narrative that describes your designing and troubleshooting.