

ROBOTICS DIVISION

Robotics Rules and Regulations

1. In order to exhibit in the Robotics Division, the 4-H member must be enrolled in:
**Robotics 1 (Robotics Explorer) OR
Robotics 2 (Robotics Probe)**
2. See General Project Guidelines.
3. Projects exhibited must be made by the 4-H member during the current 4-H year (September 1- August 31).
4. Table displays are limited to 2'wide by 15" deep. The maximum poster size for hanging is 22" by 30".
5. Edgar County 4-H and 4-H Association **will not be responsible for stolen, lost, or damaged robots**. Members may remove their robots from the fairgrounds at the completion of judging for security reasons. If the robot is removed, the member must provide a photo of the robot to leave with the exhibit tag, scoring sheet, and ribbon/sticker.

Class 01- Robotics Explorer, Chapter 1- Create a 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 a square race track. Provide a narrative that describes your 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 (e.g. touch, light). 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 two sensors. 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. Provide a narrative that describes your experience designing and troubleshooting this program.

ROBOTICS DIVISION (cont'd)

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 you wrote that uses advanced programming strategies, such as using containers, loops and subroutines and using combined sensors. Provide a narrative that describes your experience designing and troubleshooting this program.