ROBOTICS

(County Only)

Demonstrations & Displays judged on ***Saturday, July 15th***
Subject to Change

The Decatur County Robotics project is designed to educate members on science and technology topics. Youth will learn engineering concepts in design, computer programming skills, team building, problem solving and much more. Participants have the option of attending meetings every month, beginning in October, to learn more about robotics and work on building and programming using the Lego Mindstorms EV3 kits.

ROBOTICS MEETINGS
As a 4-H member enrolled in the robotics project, you have the opportunity to attend special robotics meetings to build and program a robot and prepare it for the exhibition at the county fair. These meetings are encouraged but are not required to participate in the robotics project. Please contact the Extension Office or the project leader for more information.

Exhibit Guidelines
All members are allowed to exhibit one of the following to complete the robotics project.

1. Educational poster or notebook. *(See poster/display instructions below.)*
2. Constructed and programmed robot for demonstration. *(See robotics demonstration instructions below.)*

Poster/Display Guidelines

1. Items exhibited must have been made by 4-H member while enrolled in the current 4-H year.
2. All posters must follow the poster requirements for Decatur County. **(SEE POSTER REQUIREMENT PAGE 247)**
3. Notebooks must consist of a 3-ring binder (with a stiff cover) and must use sheet protectors on all pages.
4. Any outside information must be cited and a resource or reference page included.
5. Topics for poster/notebook projects must focus on a topic related to robots (building, programming, robots in everyday life, etc.)

Robotics Demonstration Instructions/Guidelines

1. Items exhibited must have been made by the 4-H member while enrolled in the current 4-H year.

2. Robots that are built and/or programmed together will be exhibited together and scored/placed together (i.e. team-built robots and/or programs we will be entered and scored as a team, not individually.)
3. Participants will exhibit both a completed robot **and** a list or print-out of the program to complete the demonstration.
4. Judging of Robotics Demonstration
    a. Robots will be judged individually, based on the criteria below.
        i. Is the program written correctly?
        ii. Does the program run successfully?
        iii. Does the member(s) understand the program and how it functions?
    b. 4-H members will be awarded a ribbon based on their robot's individual performance, but not necessarily judged against other robots in the same class.
    c. Members will be expected to interact and explain the building and programming process with the judge (if applicable).
    d. It will be up to the judge's discretion if Division Champion and/or Grand Champion awards are given.

EXHIBITION REQUIREMENTS

LEVEL A – Grades 3-5

Poster/Notebook – Create an educational poster or notebook on a topic related to robotics, including building, programming, examples of robots, importance of robots, famous robots, careers in robotics, etc.

Robotics Demonstration – Exhibit a robot that is moveable and is programmed by the 4-H member. Robots should be programmed to navigate through a given obstacle course and/or accomplish a certain task, as explained by the Project Leader.

LEVEL B – Grades 6-8

Poster/Notebook – Create an educational poster or notebook on a topic related to robotics, including building, programming, examples of robots, importance of robots, famous robots, careers in robotics, etc.

Robotics Demonstration – Exhibit a robot that is moveable and is programmed by the 4-H member. Robots should be programmed to navigate through a given obstacle course and/or accomplish a certain task, as explained by the project Leader.

LEVEL C – Grades 9-12

Poster/Notebook – Create an educational poster or notebook on a topic related to robotics, including building, programming, examples of robots, importance of robots, famous robots, etc.

Robotics Demonstration – Exhibit a robot that is moveable and is programmed by the 4-H member. Robots should be programmed to navigate through a given obstacle course and/or accomplish a certain task, as explained by the project leader.

State Fair: NOT A STATE FAIR PROJECT

However, there are opportunities for members to participate in challenges and demonstrations on the state level. Please contact the Extension Office for more information or to sign up.

11/17/2015