DEPARTMENT 77– 4-H ROBOTICS

2023 KITTITAS COUNTY FAIR EXHIBITOR'S GUIDE

ROBOTICS

DIRECTOR IN CHARGE
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SUPERINTENDENT
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ENTRY AND EXHIBITS

- Entry form deadline: Third Friday in August by 5pm will apply.)
- All individuals are encouraged to enter Educational Exhibits.
- ***All individuals should read the General Rules & Regulations.***
- *Entries will physically be accepted in the 4-H Building Tuesday prior to Fair, from 6:00 to 8:00 pm*
- Read General Rules & Regulations.
- http://www.kittitascountyfair.com/guide.asp

JUDGING
Judging will start after entries are received, at 8 pm on Tuesday prior to Fair. Exhibitors who are demonstrating their robots for judging should sign up for a time to demonstrate during check-in.

4H ROBOTICS RULES

1. No more than two entries in each Class, with a maximum of six entries total.
2. Exhibitors must be enrolled in the 4H Robotic Project
3. Project should involve youth created robots. They can be created from kits or from miscellaneous parts.
4. All Robotic Project entries will be available for pick up on Monday, Labor Day, from 6:00 pm – 8:00 pm.
5. Robots will be judged on looks, workmanship, consideration of safety, ease to work on, structural stability, creativity, and functionality. More weight is given to youth designed project.

6. Robot and full description of what it is meant to accomplish must be submitted with entry.
7. Put all photos, programs, designs etc. into a report folder, along with the following:
   An 8.5" x 11" form with the following information for each entry.
   a. Introduction: your age, grade completed, number of years in robotic project, club name
   b. Project:
      - What project did you select?
      - Why did you decide to do this project?
   c. Materials
      - What materials did you use (Lego pieces, miscellaneous parts)
      - What made you choose these materials?
   d. Steps
      - List the steps that you used to create your project (instructions from a kit, self-designed).
   e. Results
      - Show an example of your final project (model or picture)
      - Do you consider the project finished? Why or why not?
      - What types of testing did you do as you developed your project?
      - What did you learn from your experience?
      - Was the final project what you expected it to be when you were done?
      - If you were to do this project again, would you do anything differently? Explain.
8. All participants in Robot Built Using Instructions and Robot Built without Using Instructions must take part in a Robotics demonstration in order to obtain their premiums.

Hosting

Each exhibitor is required to host at the Robotics Display area. Failure to do so means that his or her premiums can be withheld.

The Robotics demonstration sign up is Tuesday, during check-in. Questions – please contact Superintendent

ROBOT PROJECT BUILT BY INDIVDUAL USING INSTRUCTIONS

DIVISION 77-A ....ROBOT PROJECT - LEGO PARTS

Robot project built with Lego parts, using instructions. Submit with the robot an information page detailing the intended function of the robot. Include comments about robot performance and problems encountered while building. Include at least one photo of the robot project performing a task.

DIVISION 77-B ....ROBOT PROJECT - NON-LEGO PARTS

(Using instructions) Submit with the robot an information page detailing the intended function of the robot. Include comments about robot performance and problems encountered while building. Include at least one photo of the robot project performing a task.

DIVISION 77-C..............................PROGRAMMING

Program copied from instructions. Programming must be printed for judging and placed into a document cover or clear folder. The program should include details such that the judge can easily understand the function of the program. Include comments about robot project performance and problems encountered during programming. Include at least one photo of the robot project.

Entrant needs to explain how the program was debugged, tested and developed and provide a working demo either with an entered robot or virtually on a mobile device to show the judge during the demo (e.g. video recording, digital animation, virtual demo software, or app). The judge wants to be able to see how well the program is doing what it is meant to do.

PREMIUM POINTS

Blue 20
Red 15
White 10

CLASSES
01 - Junior (Age 8-10)
02 - Intermediates (Age 11-13)
03 - Senior (Age 14-18)

ROBOT PROJECT BUILT BY AN INDIVDUAL WITHOUT USING A KIT OR DETAILED INSTRUCTIONS

DIVISION 77-D ....ROBOT PROJECT - LEGO PARTS

Robot project built using only Lego parts. The robot should include information page detailing the function of the robot. Include comments about robot performance and problems encountered while building. Include at least one photo of the robot project performing a task.

DIVISION 77-E ....ROBOT PROJECT - NON-LEGO PARTS

Robot project built using primarily non-Lego parts. Submit with the robot an information page detailing the intended function of the robot. Include comments about robot performance and problems encountered while building. Include at least one photo of the robot project performing a task.

DIVISION 77-F ....ORIGINAL PROGRAMMING

Original programming, no instructions used. Programming must be printed for judging and placed into a document cover or clear folder. The program should include details such that the judge can easily understand the function of the program. Include comments about robot project performance and problems encountered during programming. Include at least one photo of the robot project.

Entrant needs to explain how the program was debugged, tested and developed and provide a working demo either with an entered robot or virtually on a mobile device to show the judge during the demo (e.g. video recording, digital animation, virtual demo software, or app). The judge wants to be able to see how well the program is doing what it is meant to do.

PREMIUM POINTS

Blue 25
Red 20
White 15

CLASSES
01 - Junior (Age 8-10)
02 - Intermediates (Age 11-13)
03 - Senior (Age 14-18)

ROBOT PROJECT DESIGN AND DISPLAY

DIVISION 77-G ....3D ROBOT

3D Robot design using software package. Printout showing no less than 3 different views. Include comments detailing the function of the robot project and any problems encountered while completing the design.

DIVISION 77-H ....CRAFT

Craft showing any robotics topic. Include comments detailing reasons you chose to create the craft project.

DIVISION 77-I.............................NOTEBOOK / POSTER

Notebook or poster showing a learned skill (with drawings and explanations) or presenting a robotics event attended (with pictures and explanations). Educational posters related to robotics, programming, or engineering, and the fair's theme are also acceptable.

PREMIUM POINTS

Blue 15
Red 10
White 5

CLASSES
01 - Junior (Age 8-10)
02 - Intermediates (Age 11-13)
03 - Senior (Age 14-18)

ROBOT PROJECT BUILT BY A GROUP WITHOUT USING A KIT OR DETAILED INSTRUCTIONS

Division 77-K through 77-L
- ***Ribbons Only – Exhibition***
- No more than 1 entry per group in each Class.
- Write number of members in the group on the exhibit form.
- List each member and his/her responsibilities within the team.
- Include project timeline and/or journal.

DIVISION 77-K ....GROUP ROBOT

Group Robot project. The robot project should include information page or a trifold poster detailing its function. Include comments about robot project performance and problems encountered while building. Include at least one photo of the robot project performing a task.

DIVISION 77-L.............................ORIGINAL PROGRAMMING

Original programming, no instructions used. Programming must be printed for judging and placed into a document cover or clear folder. The program should include details such that the judge can easily understand the function of the program. Include comments about robot project performance and problems encountered during programming. Include at least one photo of the robot project. Do not put individual programs in this Division. This Division is for programs written by more than one individual.

Entrants need to explain how the program was debugged, tested and developed and provide a working demo either with an entered robot or virtually on a mobile device to show the judge during the demo (e.g. video recording, digital animation, virtual demo software, or app). The judge wants to be able to see how well the program is doing what it is meant to do.

CLASSES
01 - Junior (Age 8-10)
02 - Intermediates (Age 11-13)
03 - Senior (Age 14-18)

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