4-H ENGINEERING & TECHNOLOGY

4-H STILL EXHIBITS AREA (EXHIBITION HALL A)
Superintendent Coordinator
Spencer Carlson 360-635-3428

Each 4-H member showing in this department is responsible for reading and complying with the **General Rules** for the Clark County Fair, the 4-H rules and regulations (Clark County Fair General Rules and 4-H General Rules documents are available on the Clark County Fair's website www.clarkcofair.com), and the special rules and regulations of this department. The Engineering & Technology Divisions will be located in 4-H Still Exhibit Area in Exhibition Hall A.

GENERAL INFORMATION

1. Items entered on display must stay in the 4-H Designated Area the entire time of the Clark County Fair. **Release time is Sunday, August 11 after 10 pm and Monday, August 12 between 9 am & noon.** If you are unable to be there at that time, please make arrangements to have your exhibits picked up. Some 4-H exhibits will be taken back to the 4-H Office-check first 564-397-5730.

2. **Entries will be accepted in the 4-H Still Exhibit Area in Exhibition Hall A on Tuesday, July 30 from 10 a.m. to 8 p.m.** Interview judging will be available to 4-H members at the time exhibits are entered if a judge is present in that department. Interview judging is a learning opportunity for 4-H members through feedback on his/her exhibit. Members may select one item per department for interview judging. For further information, (i.e. times and dates), about interview judging in various departments, contact the superintendent listed in the Exhibitor Handbook.

3. **4-H members may only exhibit items in 4-H projects they are enrolled by the first business day of May. (Superintendents will consult with the 4-H Office in the case that 4-H projects and 4Honline project categories are not clearly connected.)**

4. Pre-registration forms for 4-H County Fair Activities will be available at the WSU/Clark County Extension 4-H Program office or online http://extension.wsu.edu/clark/4hyouthfamilies/clarkcountyfair/ and due at the same location by the last business day of June. Members will participate in activities at assigned times, bringing all materials and supplies needed. Participants must arrive at the activity and be prepared to participate at the assigned time. Failure to start at the assigned time may result in forfeiture of time slot, being moved to another time allocation, and/or having the final ribbon lowered at least one placing. Judges will evaluate member at the time of the activity. Judges' decision is final.

5. Prior to Clark County Fair 4-H participants will be emailed date and time of chosen activity and directed to the site for 4-H worksheets required by some 4-H Activities, once pre-registration is complete. These worksheets must be completed and handed to the superintendent before the start of the activity. **They are to be completed in members' handwriting, or typed by youth**. Incomplete or missing worksheets may result in the lowering of ribbon color at least one placing for the activity. Any photos required for the activity will be attached to the worksheet when it is turned in. Activity worksheets can be found at: http://extension.wsu.edu/clark/4hyouthfamilies/clarkcountyfair/

6. Building Security - Any parent and/or leader, whose child is enrolled in projects displayed or activities in the 4-H Still Exhibit Area (Exhibition Hall A) must sign up for a security shift. Sign up on Tuesday, July 30th (Entry Day) from 10 am-8 pm.

4-H STATE FAIR August 30 – September 22, 2024

4-H Still Exhibits/4-H Activities are required to fill out and return all paperwork to Nancy Peck (Clark County 4-H Still Exhibits Superintendent for 4-H State Fair) no later than Monday, August 12 by noon. Nancy will be present from 9 am-Noon on Monday.

4-H State Fair paperwork may also be picked up, filled out, and return during Fair once judging is complete and exhibit qualifies. Nancy is located in the 4-H Kitchen area in Exhibit Hall A, Clark County Event Center on the Clark County Fairgrounds during Fair.

Deadline for 4-H Still Exhibit entries exhibiting at 4-H State Fair: Monday, August 12 by noon. Entries are received in the Clark County Event Center, Exhibit Hall A, 4-H Kitchens – Nancy Peck.
No entries will be accepted after Noon.
Check the WA State Fair Exhibitor Handbook for Class & Lot information to complete paperwork.
http://4h.wsu.edu/statefair/

DIVISION 900: ROCKETRY (Aerospace)

Superintendent:

Spencer Carlson
(360) 635-3428

Bradley Carlson
360-799-0710

Exhibits are entered on Tuesday, July 30, from 10 am to 8 pm at the Clark County Fair Grounds in the Event Center Exhibit Hall A – 4-H Still Exhibit Area.

RULES & REGULATIONS:
4-H members must be enrolled in the Aerospace Project. Exhibits include those made from model rocket kits. Members may enter one rocket that they have constructed and flown themselves. The exhibitor will provide a data sheet that includes:

1. Name, age, and address of exhibitor.
2. Preflight information (kind and size of rocket).
3. Launch, weather, and flight data.

A "Certificate of Flight" (C0994 rev7/97) must be attached to the exhibit. Certificates can be picked up at the WSU/Clark County Extension office or on line at https://pubs.wsu.edu/ItemDetail.aspx?ProductID=13228 or http://www.4-hmall.org/Catalog/SearchResults.aspx?SearchQuery=rocket
Rockets will be judged according to degree of challenge on workmanship and stability.

Points allowed:

Degree of Challenge	Blue	Red	White
1.	6	5	3
2.	8	6	4
3.	10	8	6
4.	16	14	8
5.	20	16	10

Each member may enter only one entry between Classes 1 and 9.
CLASS:

1. Single Stage
2. Mini Brute
3. Boost Glider
4. Multi Stage
5. Scale Flying Models
6. Exotic Designs
7. Maxi Brute
8. Special purpose models (payload, camera, transmitters, research, etc.)
9. Rocket built from plans other than kits (must be accompanied by plan sheet).
10. Aerospace exhibits going to State Fair must have a Certificate of Flight (C0994) attached. The exhibit must be put back into a preflight appearance for exhibiting purposes.

DIVISION 905: BICYCLE

Superintendent:

Spencer Carlson
(360) 635-3428

Assistant Superintendent:

Exhibits are entered on Tuesday, July 30th, from 10 am to 8 pm at the Clark County Fair Grounds in the Event Center Exhibit Hall A – 4-H Still Exhibit Area.

RULES & REGULATIONS:
Exhibitors must be enrolled in the Bicycle Project (HCC). Curriculum can be located at https://pubs.wsu.edu/ListItems.aspx?Keyword=EM4837 or http://www.4-hmall.org/Catalog/SearchResults.aspx?SearchQuery=bicycle

Points:

	Blue	Red	White
1. Poster	12	10	8
2. Notebook	10	8	6
3. Accessory made by member	9-12	6-8	0-5
4. Club Display	20	15	10

CLASS:

1. Poster - May show any topic regarding project.
2. Notebook - On safety or club projects or bike trips with pictures and explanations (mileage, place of travel, weather, club or single).
3. Accessory - Limit of one. Must be made by member. Accessory made for bike or member. Must be made during the current 4-H year.
4. Club Display - Display should show club name, education value, design, creativity, neatness, convey a message.

DIVISION 910: COMPUTER TECHNOLOGY

Superintendent:

Spencer Carlson
(360) 635-3428

Assistant Superintendent

Exhibits are entered on Tuesday, July 30th, from 10 am to 8 pm at the Clark County Fair Grounds in the Event Center Exhibit Hall A – 4-H Still Exhibit Area.

RULES & REGULATIONS:
Exhibitors must be enrolled in the 4-H Computer project. Curriculum can be found at https://pubs.wsu.edu/ListItems.aspx?Keyword=C0861 or http://www.4-hmall.org/Catalog/SearchResults.aspx?SearchQuery=computers
Be creative to produce an exhibit for the Clark County Fair. There are many ways to reflect your creative talents. By using your existing software, you can create and/or enhance many common everyday things.
A 3x5 card is required with the following information for each entry.

A. Introduction:
   1) Your age, grade in school, number of years using a computer, and the name of your 4-H club.

B. Project:
   1) What project did you select?
   2) Why did you decide to do this project?

C. Materials:
   1) What materials did you use (software, Hardware, books, etc.)?
   2) What made you choose these materials?

D. Steps:
   1) List the steps that you used to create your project.

E. Results:
   1) Show an example of your final project.
   2) Did you like the project?
   3) Was the final project what you expected it to be when you were done?
   4) If you were to do it again, would you have done anything differently; explain?
   5) What did you learn from your experience?

F. Guidelines to follow:

Each project must have a hard copy of your project for display and judging at the Clark County Fair. Exhibitors can have a total of 10 entries with no more than three of the same type.

Points will be awarded by the judge using the following guidelines:

1) Content
2) Neatness
3) Difficulty

Points: Blue – 14 Red – 10 White – 6

CLASS – 1: Exhibitors can have a total of 10 entries. Limited to 3 entries of the same type.

A. 4-H records
B. Document your community service projects

C. Compose music
D. Develop games
E. Layout landscape scenes
F. Create building designs
G. Write up club newsletters
H. Create newspaper articles
I. Write computer manuals/guides
J. Outline and track a nutrition program
K. Accounting or record keeping
L. Other

CLASS - 2 Geospatial

Objectives: Explore geographic positions; Use navigational tools, Measure distances, Create maps, Assess community problems, and Solve complex problems using technology. Exhibitor must be enrolled in the Geospatial Science Project (HA).
Curriculum can be found at http://www.4-hmall.org/Category/4-hcurriculum-geospatial.aspx
Any item or display must have a 3x5 card is required with the following information for each entry.

A. Introduction:
   1) Your age, grade in school, number of years using a computer, and the name of your 4-H club.
B. Project:
   1) What project did you select?
   2) Why did you decide to do this project?
C. Materials:
   1) What materials did you use (software, Hardware, books, etc.)?
   2) What made you choose these materials?
D. Steps:
   1) List the steps that you used to create your project.
E. Results:
   1) Show an example of your final project.
   2) Did you like the project?
   3) Was the final project what you expected it to be when you were done?
   4) If you were to do it again, would you have done anything differently; explain?
   5) What did you learn from your experience?
F. Guidelines to follow:
   Each project must have a hard copy of your project for display and judging at the Clark County Fair. Exhibitors can have a total of 10 entries with no more than three of the same type.
   Points will be awarded by the judge using this guideline:
   1) Content
   2) Neatness
   3) Difficulty

DIVISION 915: SMALL ENGINES

Superintendent:

Spencer Carlson
(360) 635-3428

Assistant Superintendent

Exhibits are entered on Tuesday, July 30th, from 10 am to 8 pm at the Clark County Fair Grounds in the Event Center Exhibit Hall A – 4-H Still Exhibit Area.

RULES & REGULATIONS:
Exhibitors must be enrolled in the 4-H Small Engine project. This division includes small engines, automotive parts and tools, and lawn mowers.
Small Engines Project Online Site:
http://extension.wsu.edu/4h/publications/engineering/Pages/project.aspx?PID=HCG or http://www.4-h.org/resource-library/curriculum/4-h-small-engines/ Exhibits will be judged on individual merit using the following criteria:

1. What the member has learned.
2. How the display communicates to the public what was done.
3. Workmanship of basic skills. Include a sufficient explanation either in writing, or orally, to the judge to explain how the exhibit was made or what was done.

Points: Blue 10, Red 8, White 6.
CLASS 1:
Members may exhibit self-made wall charts 15"x20" inches showing basic engine functions or safety factors.

A. Cooling systems
B. Filtering of oil or air
C. Carburetor
D. Ignition
E. Total operational costs
F. Major cause of accidents

CLASS 2:
Example of sheet metal repair or refinishing with successive applications on strip of sheet metal 15”x20”.

CLASS 3:
Exhibit of defective brake parts - including drum section - labeled and mounted on board - maximum size 15"x 20".

CLASS 4:
Tire tread sections (3 inches wide) showing under-inflation, over-inflation, and faulty wheel alignment - all labeled and mounted on panel 15"x20".

CLASS 5:
Breakdown display of small engine parts on plywood panel. Minimum size 24"x30" to 4'x8' maximum.

CLASS 6:
Basic tool set on board, maximum size 15"x20".

CLASS 7:
Examples of tool defects (4 pieces).

CLASS 8:
Demonstrate the difference between renewable and non-renewable energy.

CLASS 9:
Demonstrate why energy costs money.

CLASS 10:
Any other project or exhibit related to project work showing initiative, originality, and accomplishment. Points awarded by judge.

Superintendent:

Spencer Carlson
(360) 635-3428

Assistant Superintendent:

Exhibits are entered on Tuesday, July 30th from 10 am to 8 pm at the Clark County Fair Grounds in the Event Center Exhibit Hall A – 4-H Still Exhibit Area.

DIVISION 917 WELDING

Projects created during the current 4-H project year. No more than one entry per CLASS per member. A 3x5 is required to accompany each entry explaining what the item is, how it is used, and what techniques were used, and what was learned for the experience.
Points: Blue 18, Red 16, White 12

CLASS 1 Display board featuring three or more different types of welds

CLASS 2 Any Small, Medium or Large welded item

CLASS 3 Any Large welded project consisting of 6 hours or more of work.

DIVISION 918 ELECTRICITY

Projects created during the current 4-H project year. Member must be enrolled in the 4-H Electricity Project HCE. Project objectives: Develop electrical skills and knowledge, Learn electrical terminology, Calculate electrical loads on circuits, Perform home maintenance electrical repairs, Be able detect electrical hazards, Construct simple electrical connections, Identify types of electrical equipment, Help educate others about electrical concepts and skills, and Explore careers related to electricity and electronics.

Order materials/curriculum from http://www.4-hmall.org/Category/4-hcurriculum-electric.aspx .
A 3x5 is required to accompany each entry explaining what the item is, how it is used, and what techniques were used, and what was learned for the experience.
Points: Blue 18, Red 16, White 12

CLASS 1: Item/projects from “Magic of Electricity” grades 4-5

CLASS 2: Item/project from “Investigating Electricity” grades 6-7

CLASS 3: Item/Project from “Wired for Power” grades 8-9

CLASS 4: Item/Project from “Entering Electronics” grades 10-12

DIVISION 920: WOODWORKING

Superintendent:

Spencer Carlson
(360) 635-3428

Assistant Superintendent:

Exhibits are entered on Tuesday, August 1st, from 10 am to 8 pm at the Clark County Fair Grounds in the Event Center Exhibit Hall A – 4-H Still Exhibit Area.

RULES & REGULATIONS

Exhibitors must be enrolled in the Woodworking Project. Woodworking curriculum information can be found at http://extension.wsu.edu/4h/publications/engineering/Pages/project.aspx?PID=HCH or http://www.4-hmall.org/Catalog/SearchResults.aspx?SearchQuery=Wood+working . The 4-H member must make entries during the current 4-H year. Along with each entry form, the exhibitor must submit an information sheet that will include the following:

A. Name and age.
B. What tools were used?
C. What kind or kinds of wood were used?
D. What kind of finish was used?

Articles will be judged on:

Originality
Degree of difficulty
Joinery
Preparation for finish
Finish

Points: Blue 30, Red 20, White 10

CLASS:

A. Junior Novice
B. Junior
C. Intermediate Novice
D. Intermediate
E. Senior Novice
F. Senior
    1. Small crafts
    2. Medium crafts
    3. Large crafts
    4. Turnings
    5. Cabinetry
    6. Furniture
    7. Other

4-H ROBOTICS

Superintendent:

Brenda Johnson
(360) 606-9334

Assistant Superintendent

Exhibits are entered on Tuesday, July 30th, from 10 am to 8 pm at the Clark County Fair Grounds in the Event Center Exhibit Hall A – 4-H Still Exhibit Area.

The Robotics exhibits will be located/exhibited in South Hall 3 from August 2 - 11 during the Clark County Fair. Demonstrations will be at 1 pm and 6 pm starting the first Friday of the Fair.

STEWARDSHIP: Exhibitors are required to do stewardship at the Robotics Display area. Failure to do so will mean that his or her premium will be withheld.

JUDGING:
Judging will start at 10 am Saturday, August 3, 2024. Exhibitors who are demonstrating their robots for judging should be at the demonstration area at 9:50 am to sign up for a time to demonstrate.

RULES & REGULATIONS:

1) Exhibitors must be enrolled in the Robotic Project.
2) Project should involve youth created robots. They can be created from Legos, kits or from miscellaneous parts. Robots will be entered on Tuesday, July 30th at the Clark County Fairgrounds, Event Center, Exhibit Hall A, 4-H Still Exhibit area.
3) All Robotic Project entries will be available for pick up on Sunday, August 11, from 10-11 p.m. or on Monday, August 12th from 9 a.m. to Noon (12 p.m.) in Exhibition Hall A
4) Robotics project and full description of what it is meant to accomplish must be submitted with entry. The description is to be presented on an 8 ½ X 11 poster.
5) Robots will be judged on structural stability, creativity, and functionality and completeness of mini posters. See club leader for more detailed information.
6) All projects will need a short video showing how the project operates. AQR code will be added to the poster for public viewing.
7) Exhibitors can have a total of 10 entries in the Robotic Divisions, with no more that two of the same Class.
   Mini Poster for projects should include the following information.
   A. Introduction
      1) Your age, grade completed, number of years in robotic project, club name
   B. Project
      1) What project did you select?
      2) Why did you decide to do this project?
   C. Materials
      1) What materials did you use (Lego pieces, miscellaneous parts)
      2) What made you choose these materials?
   D. Steps

1) List the steps that you used to create your project (instructions from a kit, self-designed).
2) What problems did you encounter during the build? How did you overcome the problems?

E. Results
1) Show an example of your final project (model or picture)
2) Did you like the project
3) Was the final project what you expected it to be when you were done?
4) If you were to do it again would you have done anything differently – explain?
5) What did you learn from your experience?

Division 912: ROBOT PROJECT BUILT BY INDIVDUAL USING INSTRUCTIONS

Points: Blue 14, Red 10, White 6

No more than 2 entries total in each class.

CLASS 1 – Non Programmable Motorized Robot Project built with Lego parts, using instructions.

A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- and less than 19 as of October 1 of current 4-H year

CLASS 2 – Non Programmable Motorized Robot Project built with primarily non Lego parts, using instructions.

A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- and less than 19 as of October 1 of current 4-H year

CLASS 3 – Programmable Robot Project built with Lego parts, using instructions.

A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- and less than 19 as of October 1 of current 4-H year

CLASS 4 – Programmable Robot Project built with primarily non Lego parts, using instructions.

A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- and less than 19 as of October 1 of current 4-H year

CLASS 5 – Programming copied from instructions. Programming must be printed for judging and placed into a document cover or clear folder, expected to be more tha 1 page. The program should include details such that the judge can easily understand the function of the program. Included comments about robot project performance and what was learned. Include at least one photo of the robot project.

A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- and less than 19 as of October 1 of current 4-H year

DIVISION 913: ORIGINAL ROBOT PROJECT BUILT BY AN INDIVDUAL (without using a kit or detailed instructions, or 50% of kit build was redesigned or altered)
Points: Blue 26, Red 20, White 14
No more than 1 entry total in each class.

CLASS 1 – Non-Programmable Motorized Robot Project built with Lego parts, original design.
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- and less than 19 as of October 1 of current 4-H year

CLASS 2 – Non-Programmable Motorized Robot Project built with primarily non Lego parts, original design.
A. Junior 8-10 yrs. of age as of October 1 current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 current 4-H year
C. Senior 14- and less than 19 as of October 1 of current 4-H year

CLASS 3 – Programmable Robot Project built with Lego parts, original design.
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- and less than 19 as of October 1 of current 4-H year

CLASS 4 – Programmable Robot Project built with Non Lego parts, originally design.
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- and less than 19 as of October 1 of current 4-H year

CLASS 5 – Original Programming, Programming must be printed for judging and placed into a document cover or clear folder, expected to be more that 1 page. The program should include details such that the judge can easily understand the function of the program. Include comments about robot project performance, problems encountered during programming, and what was learned. Include at least one photo of the robot project.
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- and less than 19 as of October 1 of current 4-H year

DIVISION 914: ROBOT PROJECT DESIGN AND DISPLAY
Points: Blue 14, Red 10, White 6
No more than 2 entries total in each class.

CLASS 1 – Non motorized or non programmable robotics project. Items must highlight at least 2 simple machines.
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 as of October 1 of current 4-H year

CLASS 2 – Craft showing any robotics topic.
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year

CLASS 3 – Notebook or poster or chosen subject of technology presenting a robotics event attended (with pictures and explanations).
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year

Division 916: ROBOT PROJECT BUILT BY A GROUP
Ribbons Only – Exhibition (first year)
No more than 2 entries per group total in each class.

Write number of members in the group on the exhibit form. Premium points will be multiplied by the number of group members. Maximum 10 members to a group. Premiums will be sent to the club.

CLASS 1 – Sumo Team Robot designed for competition. The robot should include information pages 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.
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year

CLASS 2 – FTC Team Robot designed for competition. A portfolio must be included with the robot project. The robot project portfolio should include information pages detailing the team members and the function of the robot. Also include comments about robot performance and problems encountered while building. Include at least on photo of the robot project performing a task.
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year

CLASS 3 – FRC Team Robot designed for competition. The robot should include information pages 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.
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year

CLASS 4 –Group Robot project. The robot project should include information pages 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.
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year

CLASS 5- 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 lot. This lot is for programs written by more than one individual.
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year

DIVISON 909 – LEGO ROBOTICS PERFORMANCE CHALLENGE

Individuals will compete to gain the highest score during a 2 and ½ minute period. Scores will be determined per the FIRST Lego League Competition Challenge. Top three scores will receive a blue ribbon, next four scores will receive a red ribbon, and the next three scores will receive a white ribbon. ribbons and medals will be given at an awards ceremony held on Sunday, August 11th at 2:00 p.m. in South Hall 3.
Points: Blue 16, Red 12, White 8
No more than 2 entries total in each class.

CLASS 1 – Entire 2 and ½ minutes scored.
A. Junior 8-10 yrs. Of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14-18 as of age as of October 1 of current 4-H year

CLASS 2 – Only 1 robot run scored. (Robot run ends when the robot returns to base, or the individual has to retrieve the robot from the field).
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year

CLASS 3 – Best use of attachments. (Ease and speed of exchange. Simplicity).
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year

CLASS 4 – Sumo Bot (Most wins determines ranking)
A. Junior 8-10 yrs. of age as of October 1 of current 4-H year
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year

DIVISION 911 3-D Design and Print – Projects must include 3-D print project and printed page or pages from 3-D modeling software. (Only for intermediates and seniors).
No more than 2 entries total in each class.

CLASS 1 – 3-D Robotics project print, copied design.
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year
Points: Blue 14, Red 8, White 4

CLASS 2 – 3-D Robotics project print, ORIGINAL DESIGN, one part.
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year
Points: Blue 14, Red 10, White 6

CLASS 3 – 3-D Robotics project print, ORIGINAL DESIGN, two parts that interact with each other.
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year
Points: Blue 16, Red 12, White 8

CLASS 4 – 3-D Robotics project print, ORIGINAL DESIGN, motor driven project with a minimum of 3 printed parts.
B. Intermediates 11-13 yrs. of age as of October 1 of current 4-H year
C. Senior 14- 18 yrs. as of October 1 of current 4-H year
Points: Blue 26, Red 20, White 14