Motorized Challenge - Amusement Park or Factory

In the Motorized Challenge - Amusement Park or Factory, youth are encouraged to build and enter models created around a theme of amusement park or factory. Youth may use any types of materials including LEGO WeDo, LEGO Technic, VEX IQ, hobby motors, erector sets, K'Nex, craft supplies, or any other type of robot kit or part, etc. They must include at least one sensor and one motor.

There are 3 parts to the challenge:

- 1. Design, build and program the Amusement Park or Factory scene.
- 2. Make a poster mini poster that tells about the project and includes pictures.
- 3. Briefly present your poster and model(s) and demonstrate it working.





Open to Junior (age 8-10) and Intermediate (age 11-13) Age Division

Spinning - Twirling - Rising - Falling - Amusement parks are full of fun. In this challenge, youth use their imagination to build a single ride or a whole park full of rides.

Or, youth may create a factory based scene which includes some type of machinery or factory process.

Adding scenery and backdrops with paper or craft items is encouraged. At least one of the rides in the amusement park or factory processes must use a sensor to trigger an action. The models may be built using any type of materials including LEGO WeDo, LEGO technic, hobby motors, erector sets, K'Nex, craft supplies, etc. They may be programmed with the LEGO WeDo software, or with Scratch or any other control system. The entry must include at least one sensor and one motor. Builders are encouraged to add sound effects to their display. Youth may enter as an individual or a team.

Display Posters - Posters can be made on an 8 $\frac{1}{2}$ " x 11" manila folder, unfolded to provide an 11" x 17" display area up to the size of the tri-fold display board and no bigger than 28" x 40". The poster may be propped up behind the project in the display area or if there is wall space behind the display, it may be hung on the wall. The display poster should include the following:

- Individual or Team and Team Members' Names and Ages
- · At least one image of the individual or team making the project.
- Any details to share about how the project was designed and built.
- Any interesting details to share about the project.
- Posters should be neatly written or typed and include images.
- Posters may be decorated to complement the motorized challenge.

The cost to enter the project is \$5 per project. Entries will be judged using the Danish system and awards will be given for participants in the junior and intermediate age divisions of 4-H. All young people will receive a participation certificate.