

## Motorized Challenges - Amusement Park and Factory

In the Motorized Challenges - Amusement Park and Factory, youth are encouraged to build and enter models created around the theme of amusement park or factory. Youth may use any types of materials including LEGO WeDo, LEGO Technic, hobby motors, erector sets, K'Nex, craft supplies, 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.
- 2 - make a mini poster that tells about the project and includes pictures.
- 3 - briefly present your poster and model(s) and demonstrate it working.

### Amusement Park

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

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. Adding scenery and backdrops with paper or craft items is encouraged. At least one of the rides in the amusement park 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.



Mini Posters - Posters should be made on an 8 1/2 x 11 manilla folder, unfolded to provide an 11 x 17 display area. 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 mini poster should include the following:

- \* Team and Team Members Names and Ages
- \* At least one image of the team making the project.
- \* Any details the team would like to share about how they designed and built the project.
- \* Any interesting details they would like to share about the project.
- \* Posters should be neatly written or typed and include images.

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.