Engineering Design Challenge - August 2024 Summer Fair

- Identify or Define the Problem
- Generate Ideas
- Identify Best Idea Based on Constraints
- Design and Build a Prototype
- Evaluate Tests
- Iterate and Redesign
- Explain Results

Explore the LEGO[®] Education SPIKE[™] Essential <u>Crazy</u> **<u>Carnival Games</u>** or <u>Amazing Amusement Park</u> units. Use the models as inspiration for your own fair creation

Explore the LEGO[®] Education SPIKE[™] Prime Ideas, the **LEGO way!** lesson. Think about how you can generate creative ideas to add to the fairground.

Create your own design that could be a part of the fairground using additional LEGO® bricks or whatever materials you have available to you.



Challenge

Design an attraction for a summer fairground.

- As a class, design and engineer different components of the fairground.
- Generate ideas as a class. What types of things would you find at a fair? (E.g., carnival games, rides, animals, food trucks, etc.)
- Build and program a model to show what you would enjoy most at the fair. Test the model and iterate on your design.
- Combine the class models to create the entire fairground!

Use each step of the Engineering Design Process to complete this challenge.

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