

Engineering Design Challenge - July 2024

Summer Celebration

- 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 [Illumination](#) lesson to practice using the Light Matrix. Use the model as inspiration for your own summer celebration.

Explore the LEGO® Education SPIKE™ Prime [Tutorials](#) to get started. Think about the engineering design process and inventing your own summer cooling celebration.

Design your celebration using LEGO® bricks or whatever materials you have available to you.



Challenge

Design a model that represents a way you celebrate.

- In the summer, many Americans celebrate the 4th of July.
- Everyone has different ways of celebrating. You might have a barbeque, go swimming to cool off, or watch an exciting fireworks show.
- In this Engineering Challenge, your task is to develop a model that represents a way you celebrate in the summer.
- Consider using the Light Matrix or Hub to mimic the colors of a fireworks show or add Sound blocks to your code to create celebratory sounds.

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