## Engineering Design Challenge – Drawing Shapes



## **Engineering Design Process:**

- 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

Need Inspiration? Consider exploring the Going the Distance or Training Camp lessons to start the discussion, encourage reflective brainstorming, and get inspiration for model building.

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

Challenge – Can you design a model, using the LEGO® Education SPIKE™ Prime set, that can draw a geometric figure? Design a way to attach a pencil or marker to the front of your robot that can draw when placed on paper. Then, program your robot to draw different shapes. Try to draw a square, a triangle, or a circle! Iterate and redesign to improve your model and code.



