

Name: _____

Date: _____



Fabrication Guide Activity Worksheet SDM FINGER

Before you Build

1. Circle the category of robotics that the SDM Finger falls under.

Sensors

Actuators

Controls

2. Why does the SDM Finger fall under this category?

3. When the mechanical controls are applied to the finger, what is your hypothesis on how this may control the actuator's movements? Sketch the finger when the controls are not pulling the actuator.

4. Sketch another drawing of the finger showing how you think it may move when the controls are applied.

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While Curing – Part 1

1. What could this device be used for? Name a use for the finger or discuss someone who may use it.
2. Based on your chosen application or user, what are some features you could add to this finger to make it more useful or more effective?

While Curing – Part 2

1. After pouring both layers of the silicone, did you notice any differences between the two silicones?
2. What is your hypothesis for how each silicone will feel once it is cured? Explain why you had this conclusion.
3. What do you think is the purpose of using two different kinds of silicones?

Date: _____

1. Use your finished finger actuator to pick up a few objects around you. What kind of objects is it able to successfully pick up? If you were to alter the finger, how might changing the geometry of it affect the way it handles various objects?

3. Why do you think this finger is named after a body part?

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