

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Design a Robot

Roboticians design and build robots to perform specific tasks. In fact, the shape of the robot is often based on its task. For example, industrial robots that weld metal parts together look like arms attached to a stationary base. However, robots designed for mapping might move on wheels or legs in order to scan and photograph the location they are mapping. All robots have moveable structures, motors, sensory systems, power supplies, and computers that control them. In this activity, you will design a robot to perform a specific task.

1. Think of a task you would like your robot to perform.

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2. Identify the moveable parts your robot must have to complete the task. Describe how these parts will move.

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3. Will your robot move from one location to another to perform its task, or will it have a base that does not move? If it moves, will it use wheels, legs, fins, or something else?

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4. The five senses are sight, smell, hearing, touch, and taste. Which senses will your robot need to complete its task? Describe how its sensors will look and how its sensory system will work.

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5. Some power sources used for robots include electricity, batteries, and solar energy. What source of power will you use for your robot?

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6. The motors in a robot act like muscles to move body parts. Where will your robot need motors?

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7. On a separate sheet of paper, draw a picture of your robot. Label the function of each moveable part. Also label the location of the sensors, power source, and motors.

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