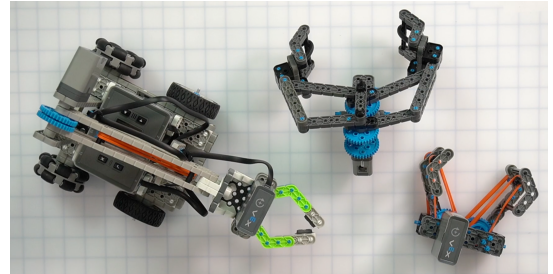


VEX IQ Claw Design

In this Lesson: You learn about what a claw is, how a claw works, and how to create an effective claw on your robot.

Definition(s):

- **Claw:** a type of gripper that is used to pick up and transport objects (like those show in this image from the video)



Notes:

- A claw can be used on a robot to pick up and move objects in a variety of environments, like a factory, in space or underwater.
- **How does a claw work?**
 - A claw has pieces that are used to open and close, and are often powered by a motor or power source.
 - On the Clawbot, the motor is connected to and turns a shaft, which is connected to a gear.
 - The gears in the Clawbot claw have a 1:1 gear ratio (they are the same size), so that when they are meshed together they turn in opposite directions, to open and close the claw.
- **An effective claw is designed depending on the object that it is meant to transport.**
 - Object considerations for designing an effective claw include:
 - Size of the object
 - Shape of the object
 - Weight of the object
 - How high it is off the ground
 - Additional considerations:
 - How many objects are you trying to move at one time?
 - What direction do you want to grab the object from?
 - How is your claw going to be attached to your robot?