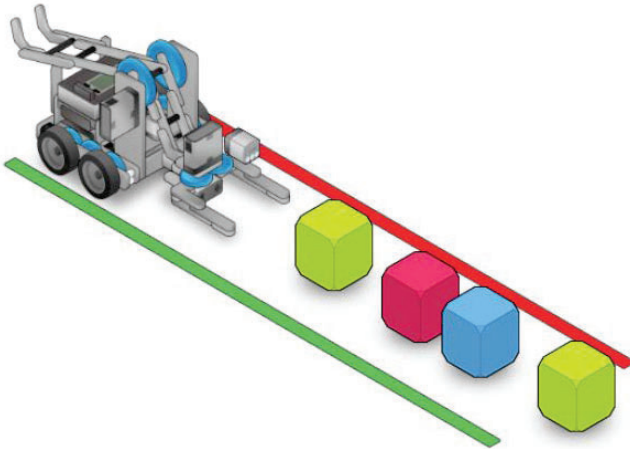


# Sense Plan Act

## How does a robot think?

One easy to understand how a robot thinks is **Sense-Plan-Act**. A robot must be able to Sense its environment, Plan a course of action based on that data, and Act on that plan.

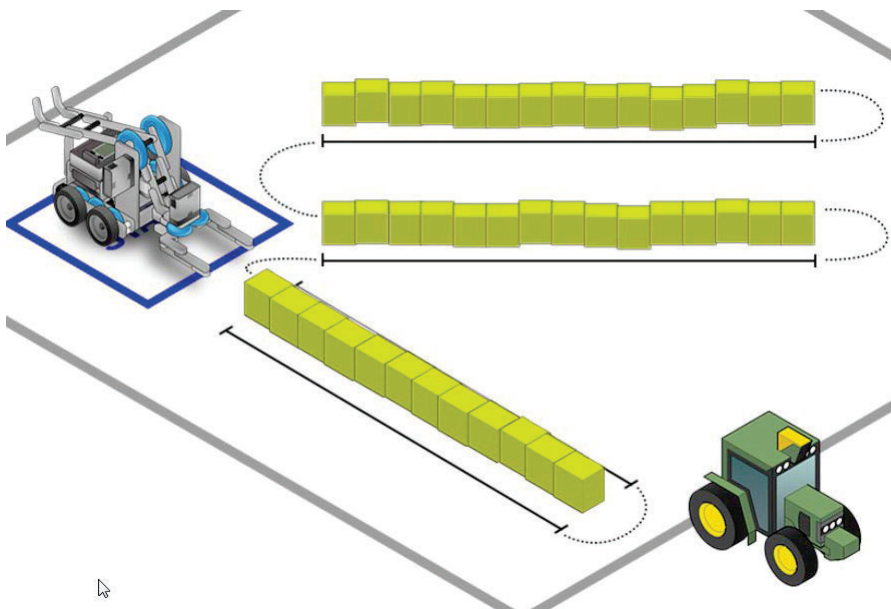


### Sense

Using a variety of available sensors, the robot gathers data from its surroundings. Sensors include anything that provides the robot with information on its environment, such as the color sensor mounted on the robot in the picture, which will provide feedback about the color of the blocks in front of it.

### Plan

The robot will process the information gathered in the Sense phase, and formulate an appropriate plan of action to react to what it saw. This step is most often performed by software (like your EV3 software) that has been loaded onto the robot in advance. The program illustrated here tells the robot to go forward until it sees a color.



### Act

The robot acts in the world through the use of actuators—any component which allows the robot to create a change in its surroundings, such as motors, which move the robot through the environment. The robot in the picture will drive through the maze.

## Answer the following questions

1. Define what a robot does.
2. Describe how your robot senses, plans, and acts to solve the challenge that you are working on.