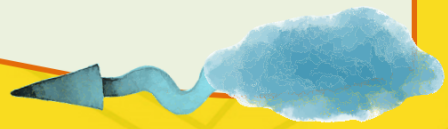
Track Trolley (2)

Target

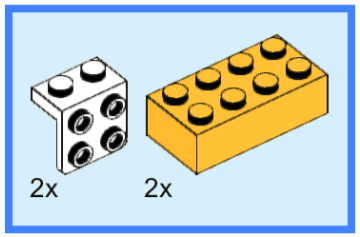
- Learn the setup mode and precautions for using two grayscale sensors.
- Learn how to use two grayscale sensors to complete line-following actions.
- Understand the correspondence between states and actions, and better understand the concept of control.

01 Assembly



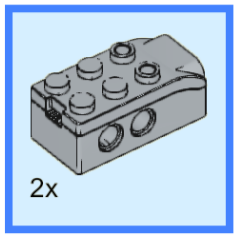
两个灰度传感器

27



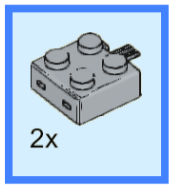
Two grayscale sensors

28

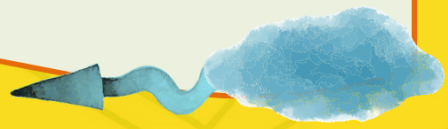


Two grayscale sensors

29

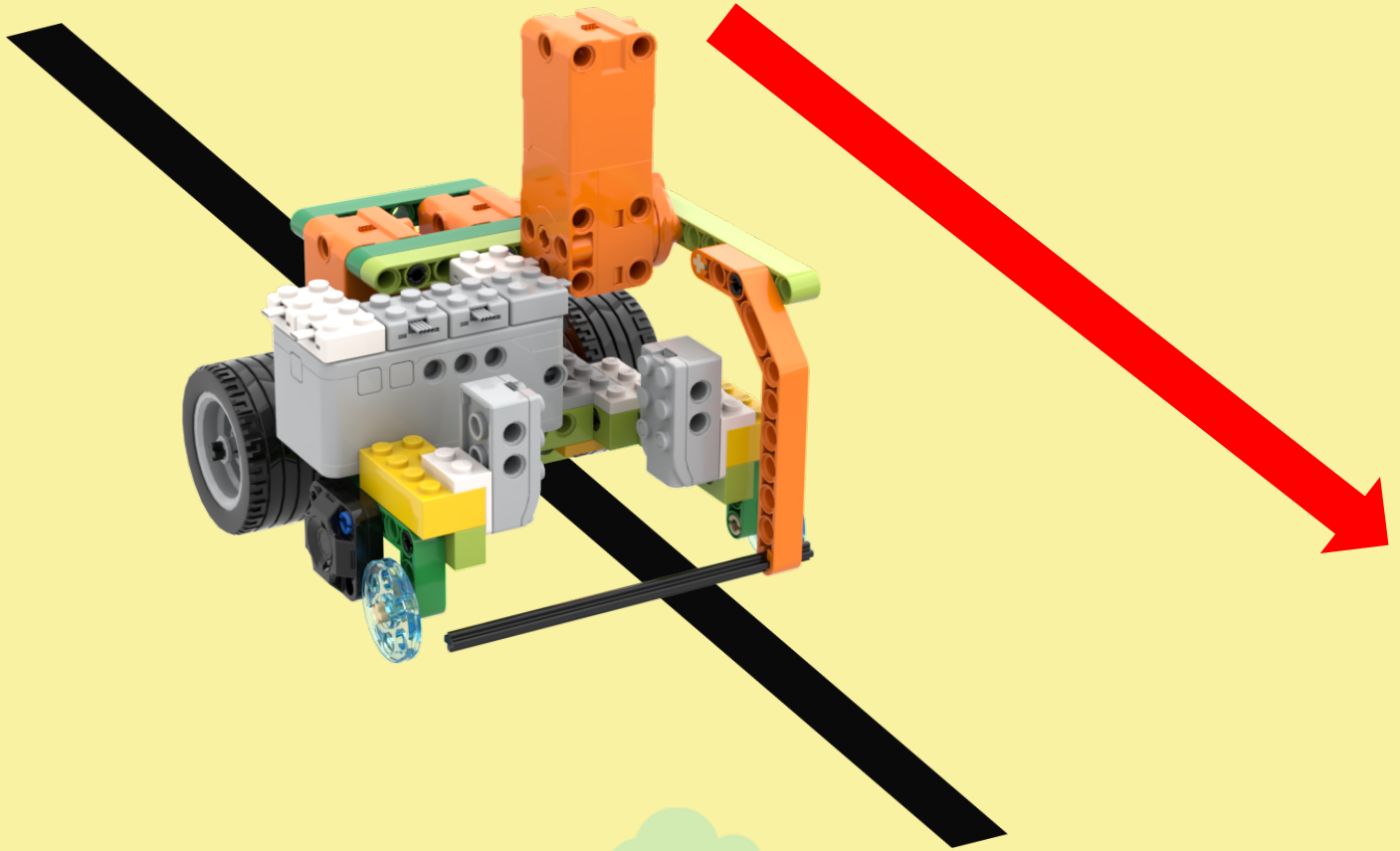


02 Task



Task

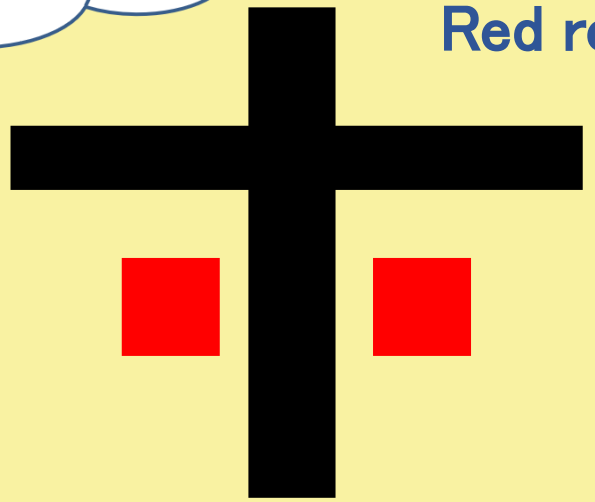
- Task 1: Use two grayscale sensors to follow a black line.



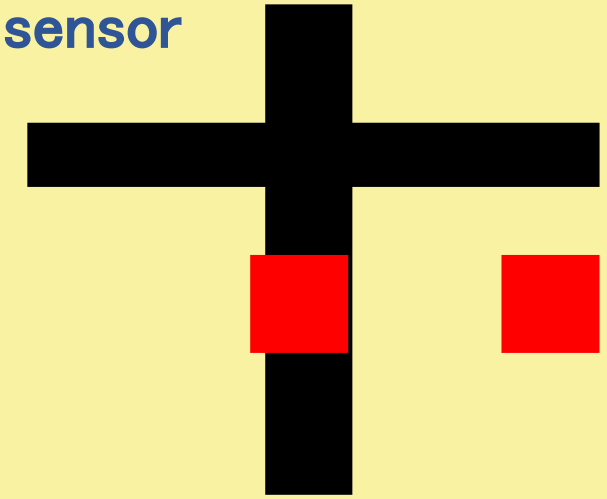
Coding Technique 1

Red represents grayscale sensor

A

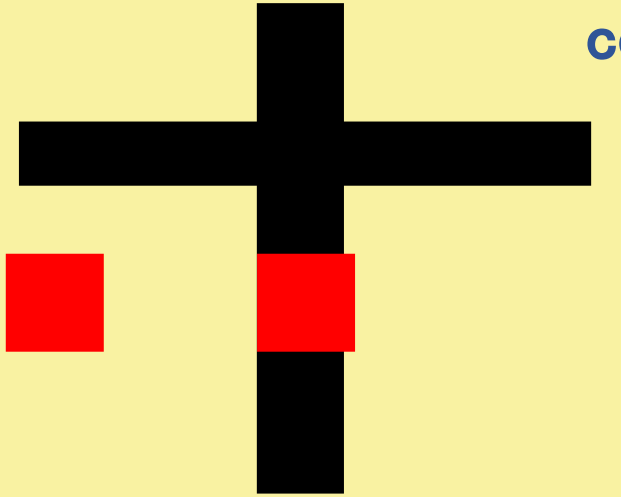


B

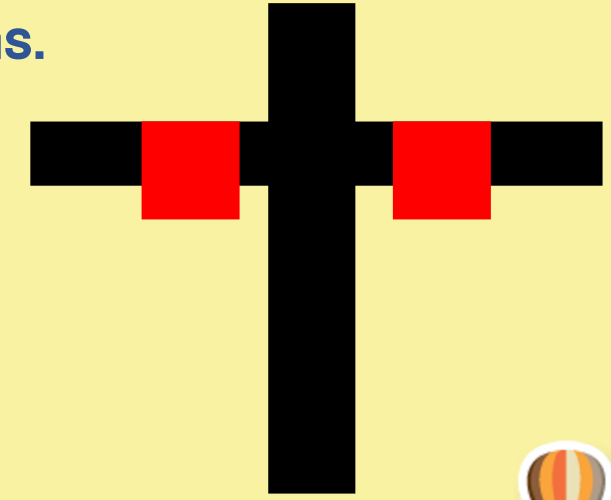


Observe the four states of the grayscale sensors and consider the corresponding actions.

C



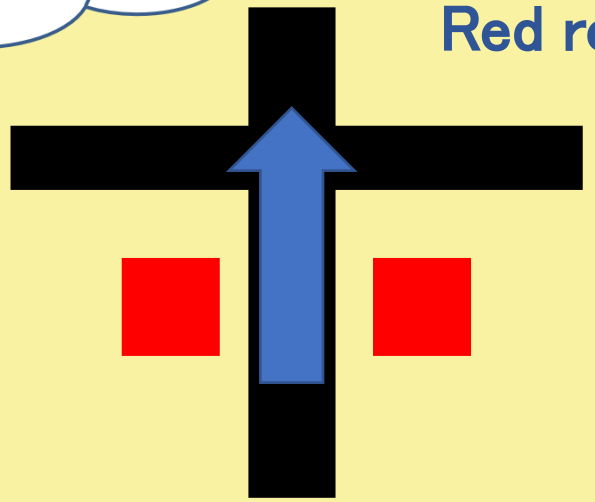
D



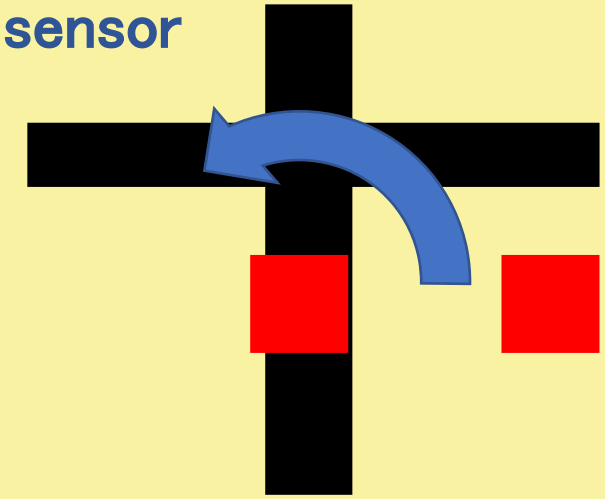
Coding Technique 1

Red represents grayscale sensor

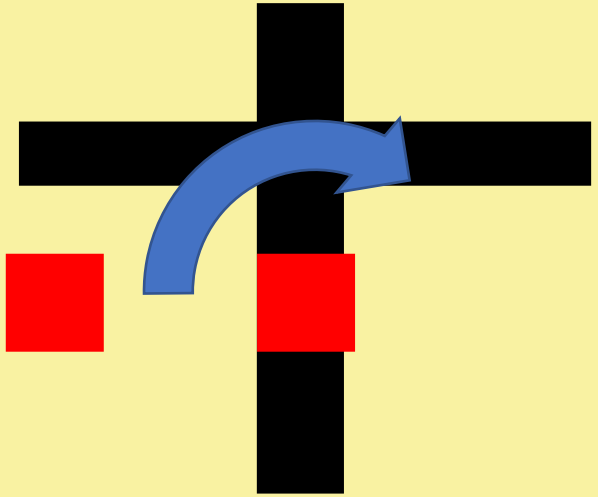
A



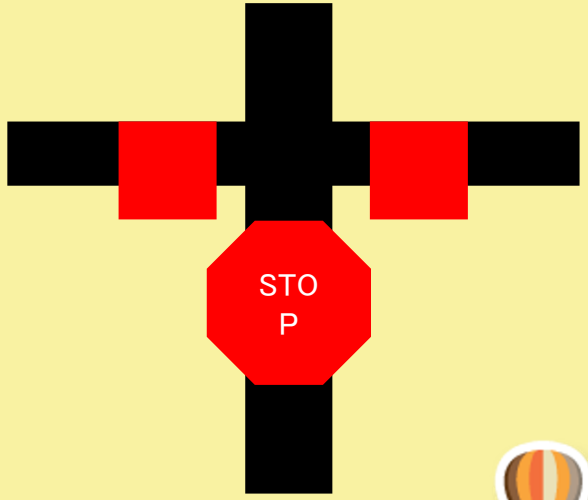
B



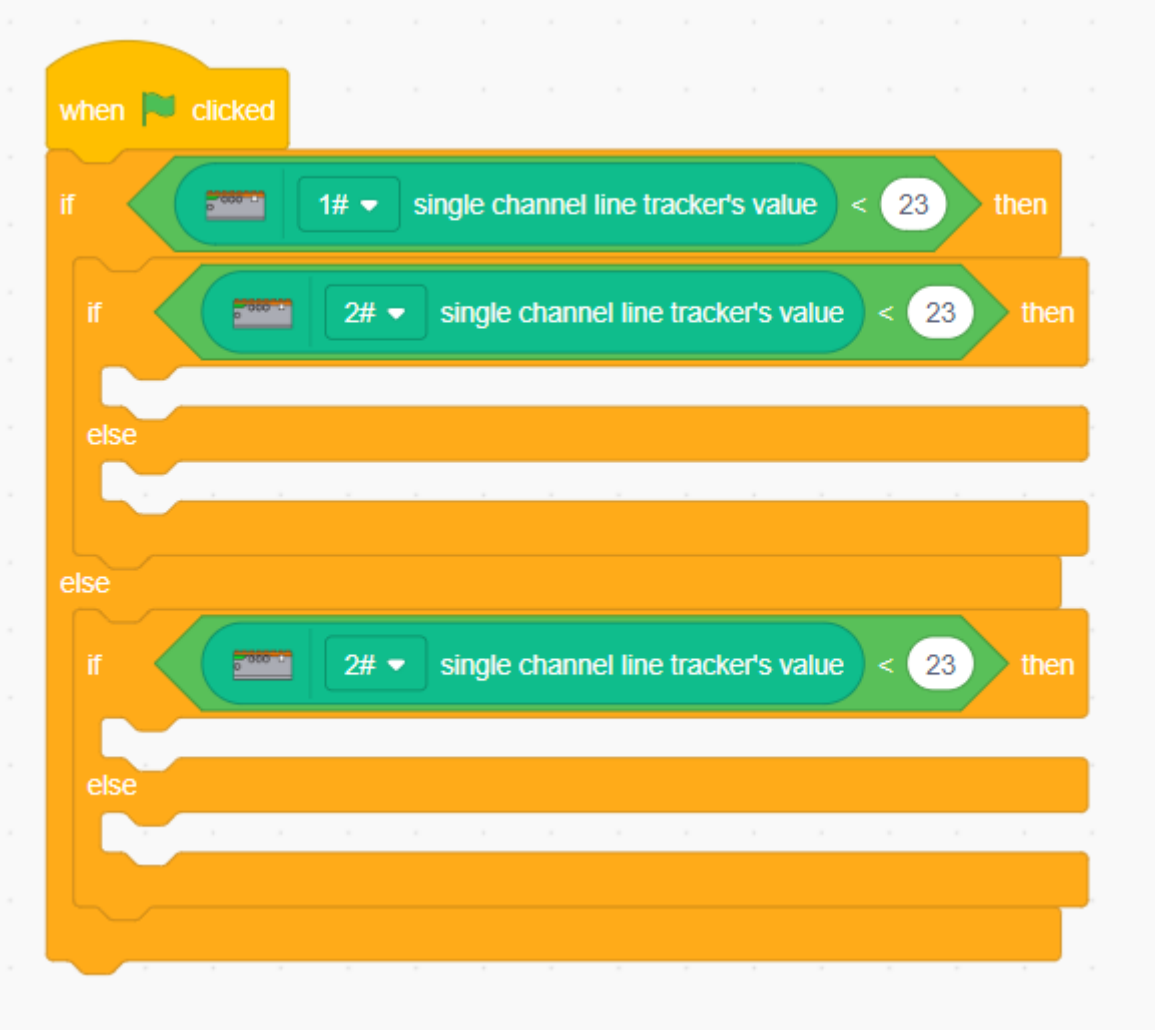
C



D



Task



A

B

C

D

First, understand the corresponding four state judgments

Task

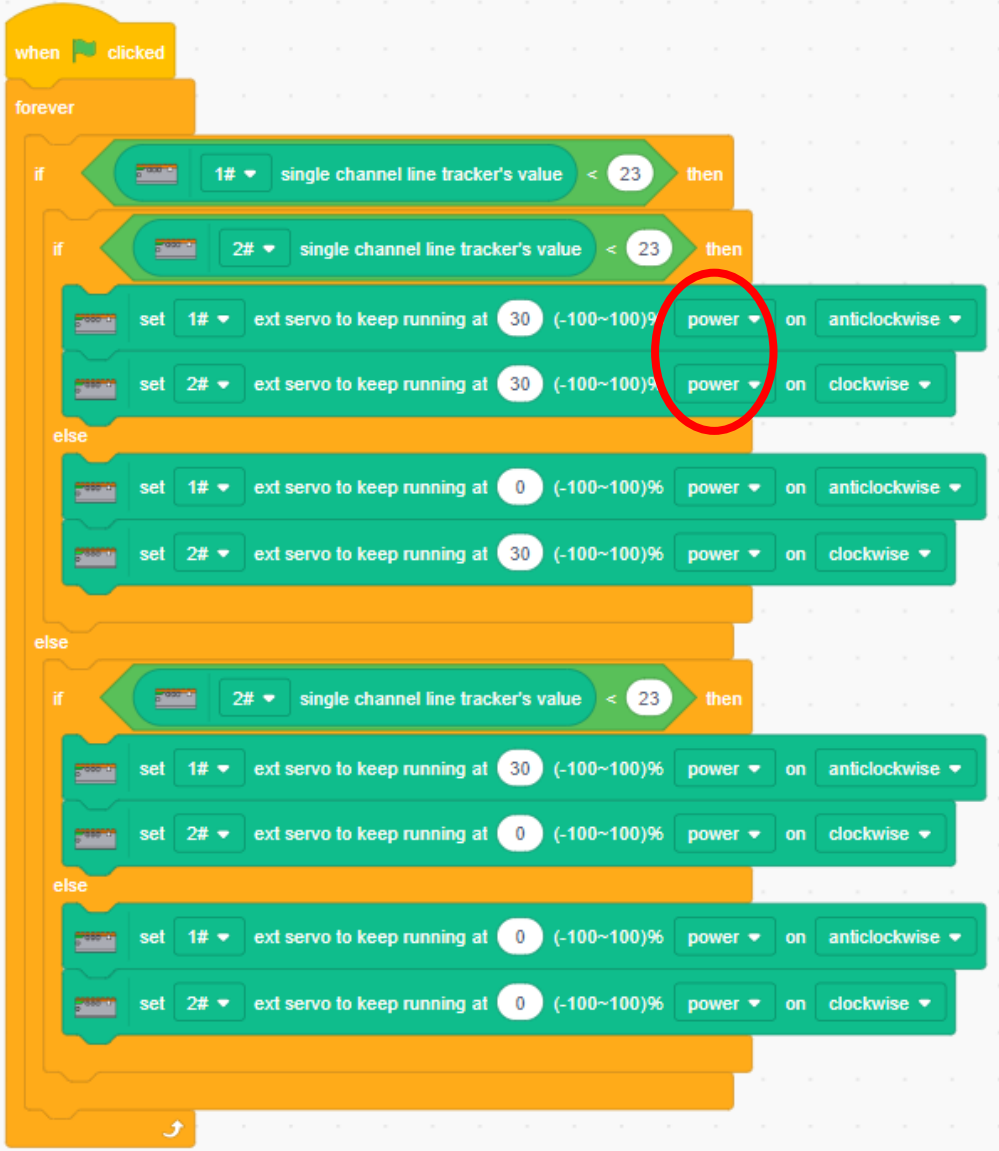
Referrable program

Action: Forward

Action: Turn left

Action: Turn right

Action: Stop



Use Power Mode

Additional Task

Additional task: Optimize your parameters to increase the overall speed of the robot.

Tip: You can increase the turning angle to help with sharp turns, and try testing on the competition field.