Robotics Badges: Programming Robots 2

Robot Maze 1

About Computer Programming:

- A computer program is a type of algorithm—a set of step-by-step instructions.
- Computer programs use commands to tell the machine what to do. A command is one step in a program.
- Computer programs are written in a type of code that can be understood by machines.

Write a program that will tell a robot how to solve the maze. The robot you’re writing this program for is designed to follow a black line. Use regular language—you don't need to write commands in code yet!

```
PROGRAM:
• Go forward 4 boxes
• Turn left
• Go forward 24 boxes
• Turn right
• Go forward 33 boxes
• Turn right
• Go forward 19 boxes
• Turn right
• Go forward 6 boxes
• Turn right
• Go forward 5 boxes
• Turn left
• Go forward 6 boxes
• Turn left
• Go forward 10 boxes
• Turn left
• Go forward 9 boxes
```

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![Robot Maze Diagram](image-url)
To check if a program runs correctly, use a robot stand-in, moving it through the maze according to the program. If the robot makes it to the end of the maze, your program works! If it doesn't, debug the program by going over each step. If the robot makes a wrong turn, figure out why and revise the code to avoid the error. Then test the code again until the robot solves the maze.

Want More Challenge? Try this!
Draw your own maze and have someone else solve it by creating a robot program.