

## Build a robot that solves ball mazes

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You will program a robot to solve a ball maze in various ways.

Games are fun, and it is therefore no surprise that there is already a huge market for games. Why not use robots as a new type of game platform?

Note that several groups can take turns programming the same robot.



### Task 1:

Construct the robot as shown in the image. Place the ball on the little platform in the corner of the maze.

Install the Fable Face app on a smartphone and connect it wirelessly to a dongle.

### Task 2:

Program the robot to solve the ball maze by making it move the two motors through a sequence of angles. The game is over when the ball falls into a hole. You get 5 points for the first hole, 10 for the second, and 15 for the third hole. Make the ball roll as quickly and steadily as possible through the maze.

### Task 3:

Experiment with the program and the robot to make it solve the ball maze in other ways.

For example:

- Control the module remotely using the arrow keys on the keyboard.
- Control the module remotely using the accelerometer, which can be read on a smartphone with the Fable Face app.
- Control the module remotely using another module.