



0.1 Your first program

Python quick start · Robot club · about 10 min

Name _____

Class _____

Date _____

What this lesson is about

The two lines at the top, drive, wait, stop, print, and the rule that stops the robot on its own.

- The two lines at the top
- Make it move
- It stops on its own
- The other directions

Questions

7 marks in all

1. What does `connect()` do?

[1 mark]

- ☐ A Gets you the robot, ready to take commands
- ☐ B Brings in the robot's commands
- ☐ C Starts the robot driving
- ☐ D Prints a line under the program

2. What does `forward(50)` do on its own?

[1 mark]

- ☐ A Starts the robot at half speed and goes straight on to the next line
- ☐ B Drives 50 cm and then stops
- ☐ C Drives for 50 seconds
- ☐ D Waits until the robot has finished moving

3. This program has no `stop()`. What does the robot do?

[1 mark]

```
from bugbot import *  
connect()  
  
forward(60)  
wait(1.5)
```

- ☐ A Drives for about 1.5 seconds, then stops by itself once the program stops sending it commands
- ☐ B Drives for ever until you close the page
- ☐ C Never moves, because there is no `stop()`
- ☐ D Stops straight away, because the program is too short

4. Put these lines in order to drive forward for two seconds, stop, and then say so.

[1 mark]

Number the lines 1 to 6 to put them in the right order.

___ `connect()`
___ `wait(2)`
___ `from bugbot import *`
___ `forward(50)`
___ `print("done")`
___ `stop()`

5. What does this program print?

[1 mark]

```
print("drove for", 2, "seconds")
```

6. Which of these make BugBot move across the mat?

[1 mark]

Tick every answer that is true.

- ☐ A `forward(60)`
☐ B `right(60)`
☐ C `led("green")`
☐ D `backward(60)`
☐ E `print(position())`

7. You drive forward for 1 second and back for 1 second. Why does `position()` not say exactly (0, 0)?

[1 mark]

- ☐ A Driving by time is never exact, and the robot leans a little as it goes
☐ B There is a mistake in the program
☐ C `position()` counts from the middle of the mat
☐ D `backward()` always goes twice as far

The task: cross the line

Drive from the start into the green zone and stop inside it, using `forward` , `wait` and `stop` . If it stops short, wait longer or drive faster.

```
from bugbot import *  
connect()  
  
forward(50)  
wait(1)  
stop()
```

Plan your program here, then type it in and press Run.



Do it on the robot

www.bugbotlab.com/learn/start-1-first-program/

The simulator checks it and tells you when it passes. Nothing to install, no account.

Challenges

1. Make the light red while the robot drives and green when it stops.
2. Drive there sideways instead, with `right()` or `left()` .
3. Print `position()` before and after the drive, and work out how far 1 second at speed 50 takes you.