

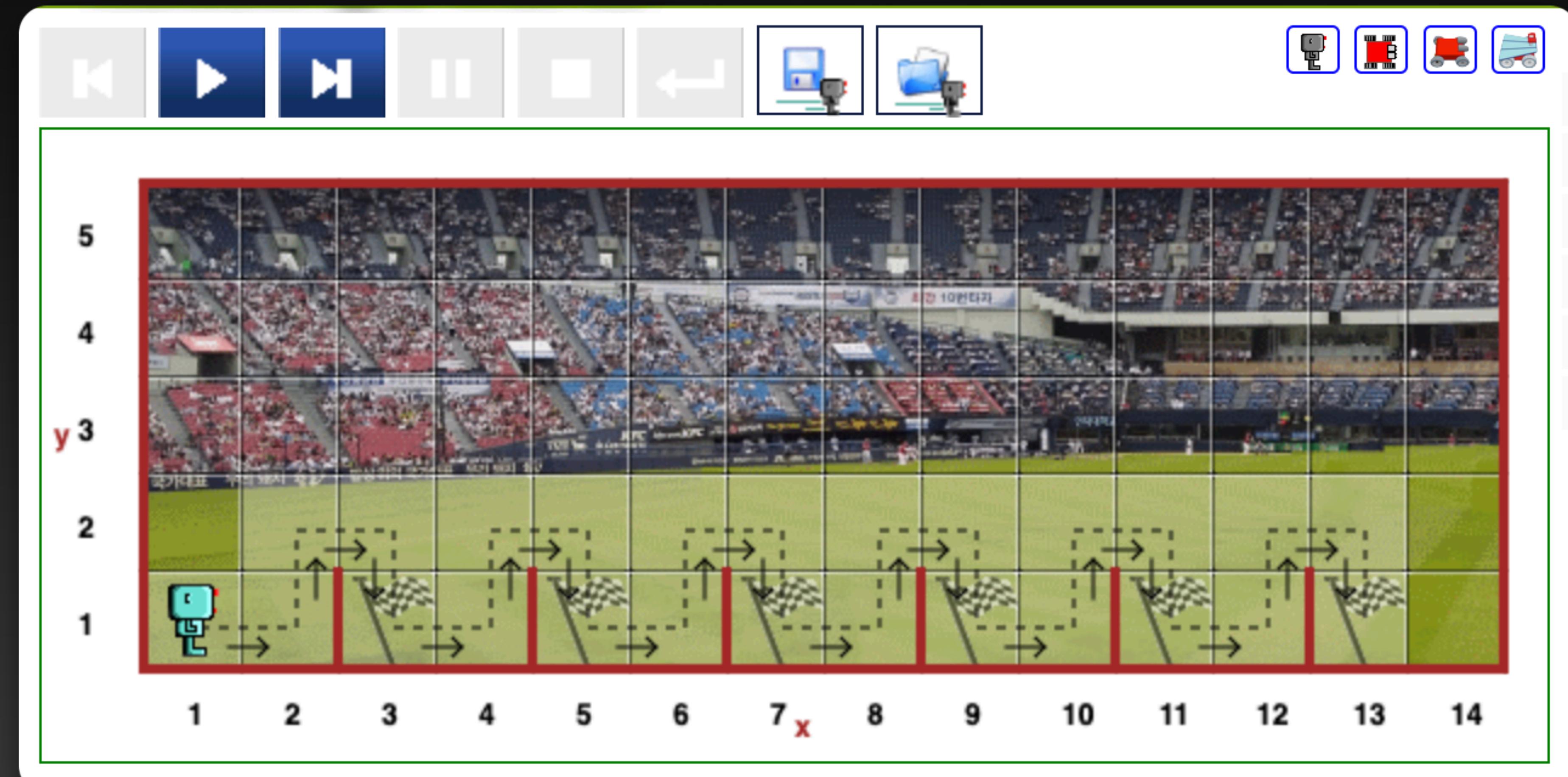
Elon's Musk-eteers

Day 1 - Robo Programming

Raahim Zeeshan | 17TH Feb

The Goal

- Help the robot complete the race
- Code your instructions using the pre-built functions



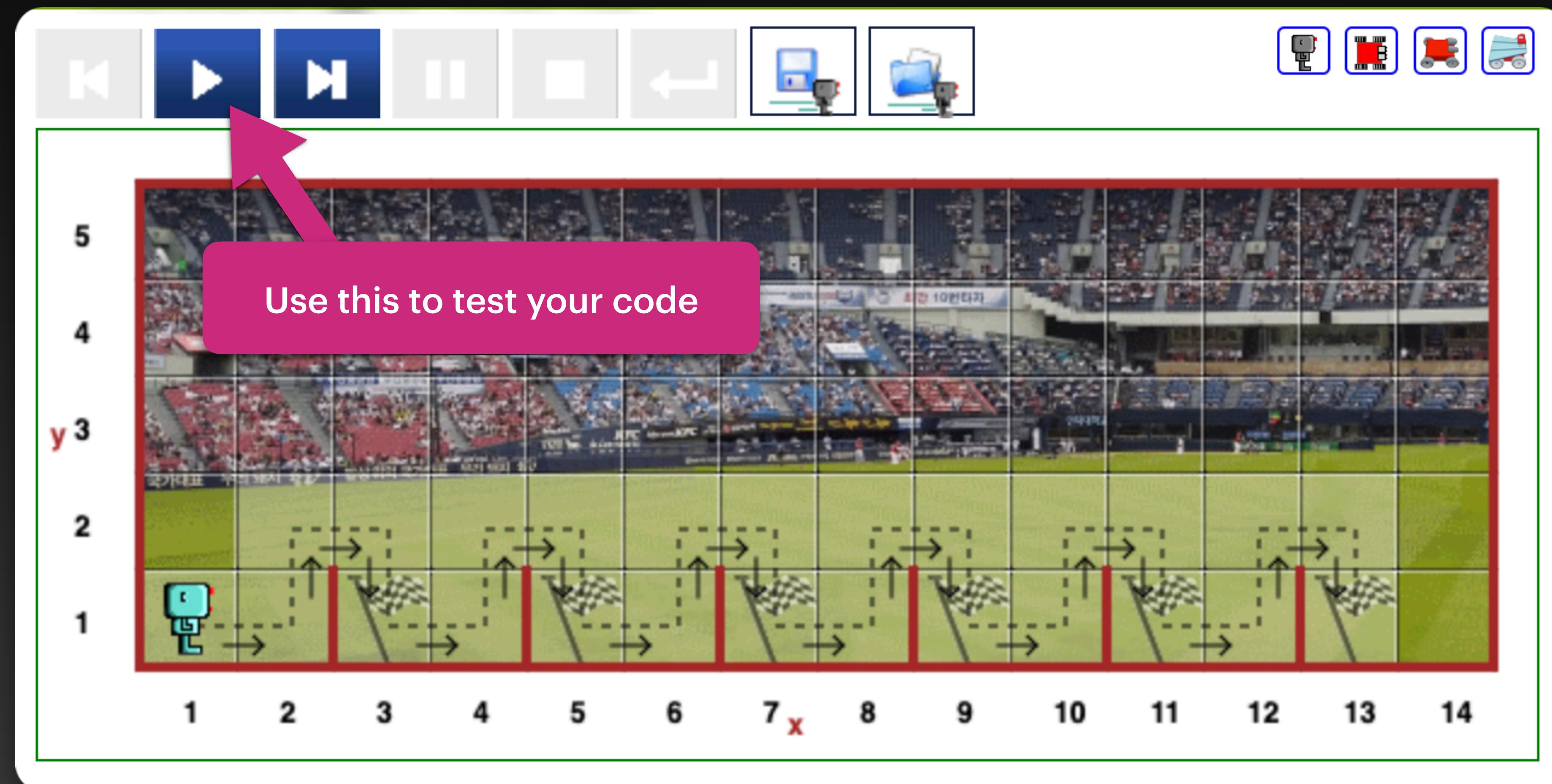
How to use the website?

The image shows a screenshot of a Python code editor interface. At the top, there are two tabs: "Python Code" (highlighted in green) and "library". To the right of the tabs are three icons: a blue pencil, a magnifying glass, and a small green icon. Below the tabs, there are two lines of code:

```
1 # Hello!!!
2 # Write your code here
```

A large pink arrow points from a pink rectangular callout at the bottom center towards the second line of code. The callout contains the text "Write your code here". The background of the code editor is dark blue.

How to use the website?

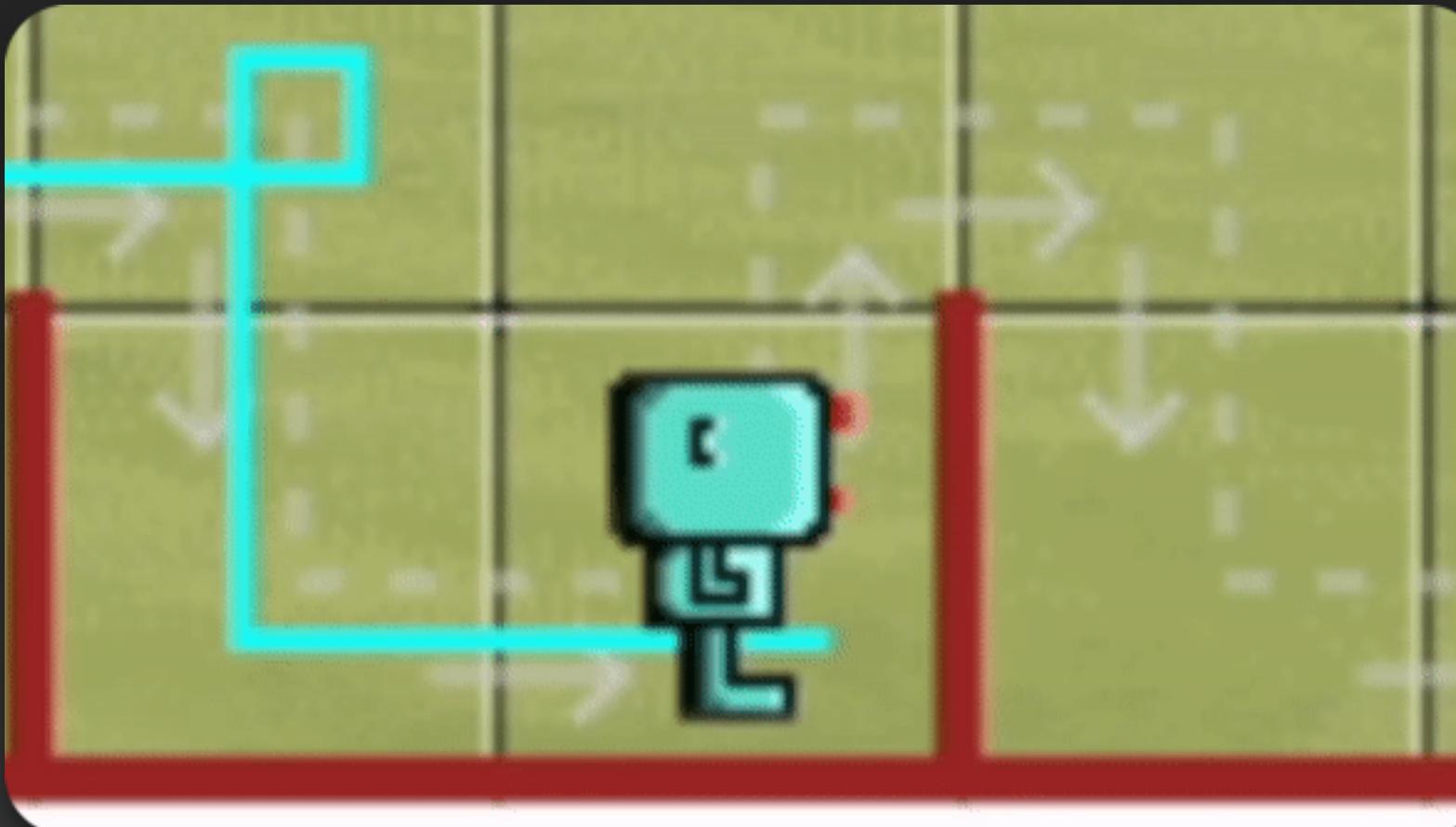


How to control your robot?

You can move your robot forward with **move()**

You can turn your robot with **turn_left()**

```
while not at_goal():
    turn_left()
```



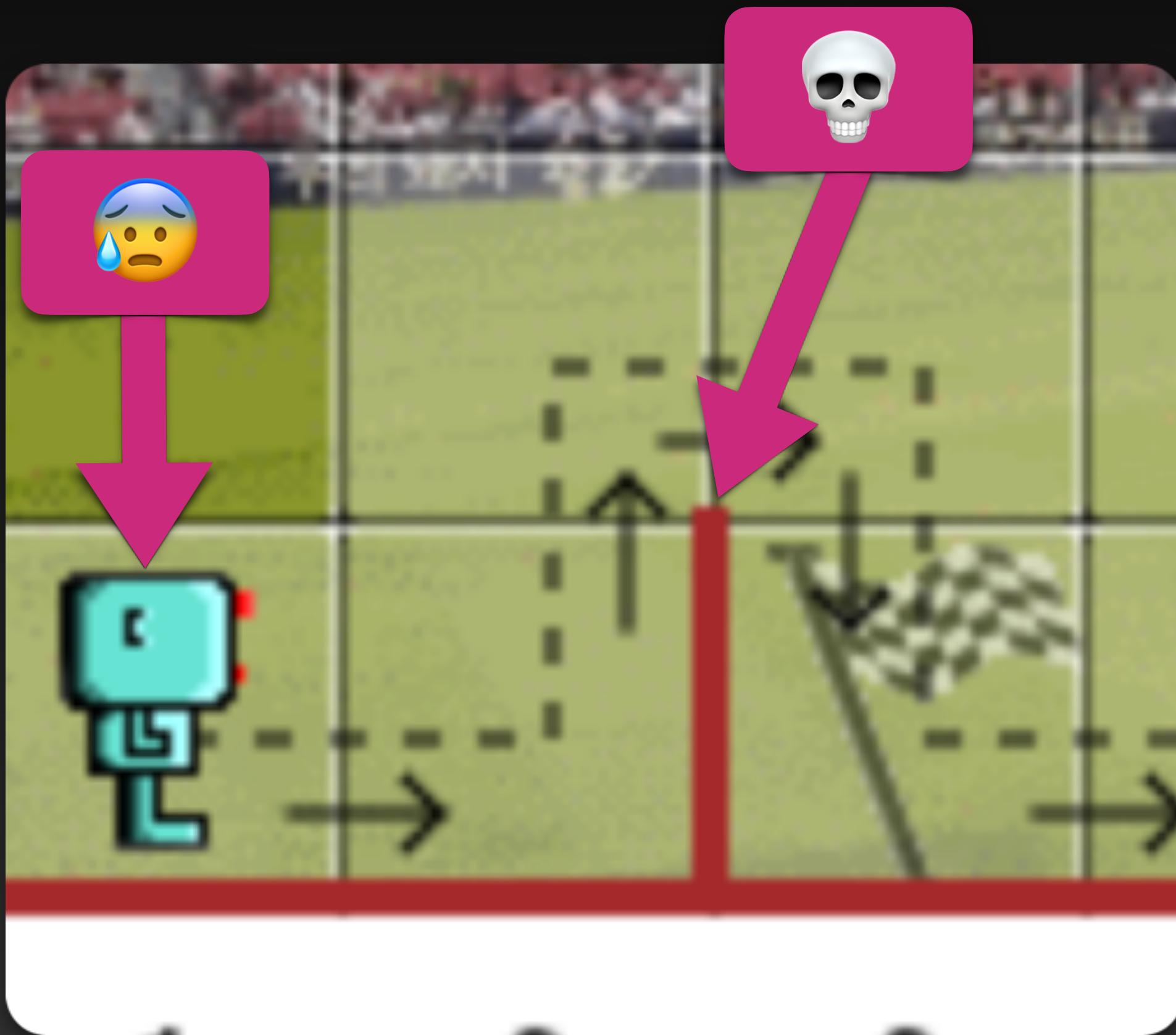
```
while not at_goal():
    move()
```



Wall is Bad



- Wall = **Bad!**
- Don't let your robot touch the wall



How to avoid a wall?

- We can use a **Conditional**
- Code inside the conditional will be executed if the condition is true

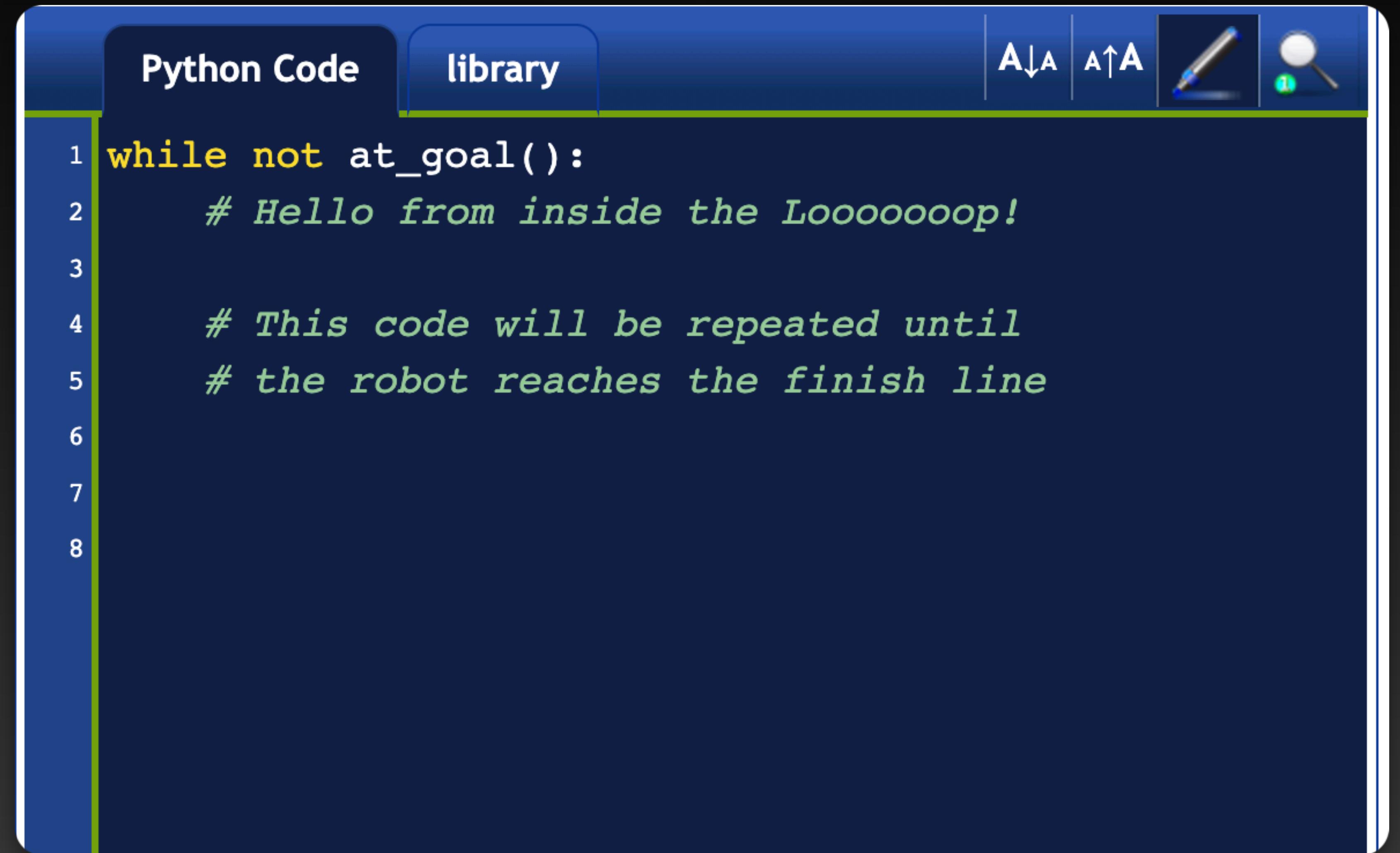
Python Code library

A↓A | A↑A

```
1 while not at_goal():
2     if wall_in_front():
3         # This code will be executed if there is
4         # wall in front of the robot
5
6     if not wall_in_front():
7         # This code will be executed if there
8         # is NOT a wall in front of the robot
9
```

How to know your robot has finished?

- We can use a **While Loop**
- Code inside the Loop will be repeated until you reach the end!



The image shows a screenshot of a Python code editor interface. At the top, there are two tabs: "Python Code" and "library", with "library" being the active tab. To the right of the tabs are icons for saving (A↓A), loading (A↑A), a pencil for editing, and a magnifying glass for search. The main area contains the following Python code:

```
1 while not at_goal():
2     # Hello from inside the Loooooop!
3
4     # This code will be repeated until
5     # the robot reaches the finish line
6
7
8
```

The code uses a while loop to repeat a block of code until the robot reaches a goal. The explanatory comments within the loop provide context for the purpose of the loop.

Feeling Intimidated?

DONT!

We will help you out, just ask for help