

Marty the Robot Workbook


Moving from Scratch to Python

Student Name:

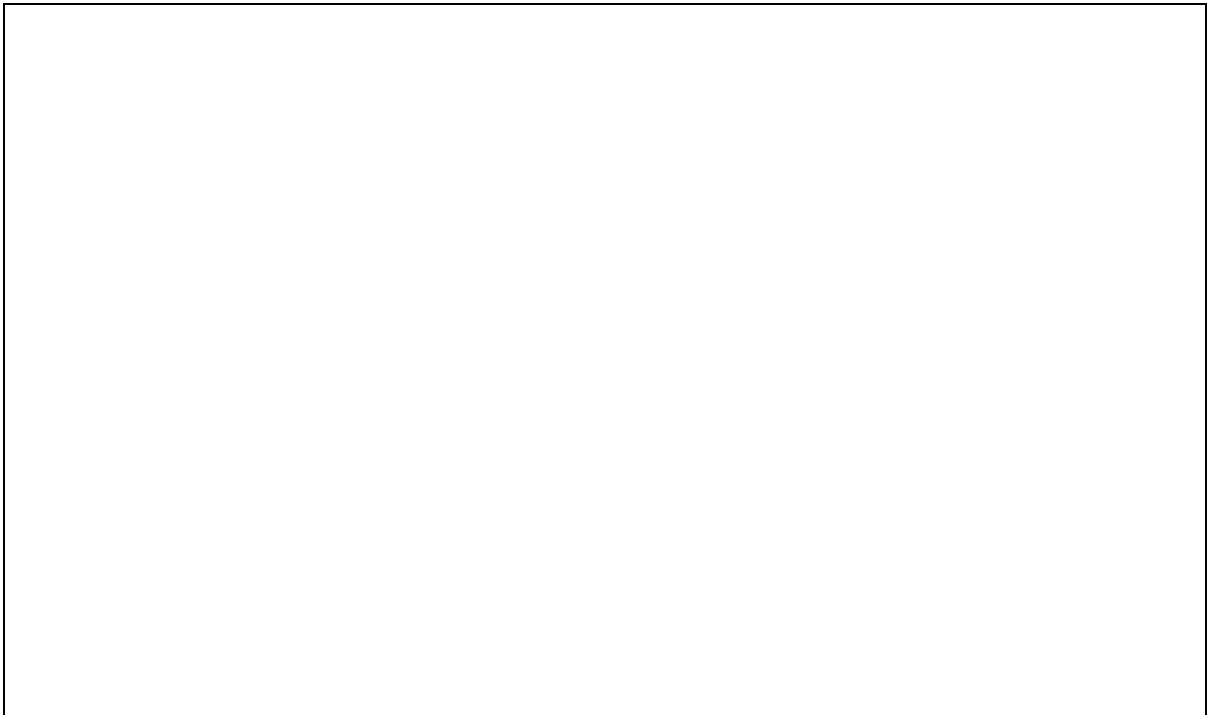
Lesson 1 – Programming Marty with Python

Instructions to Drawing a Robot	What I Imagine Someone Drawing

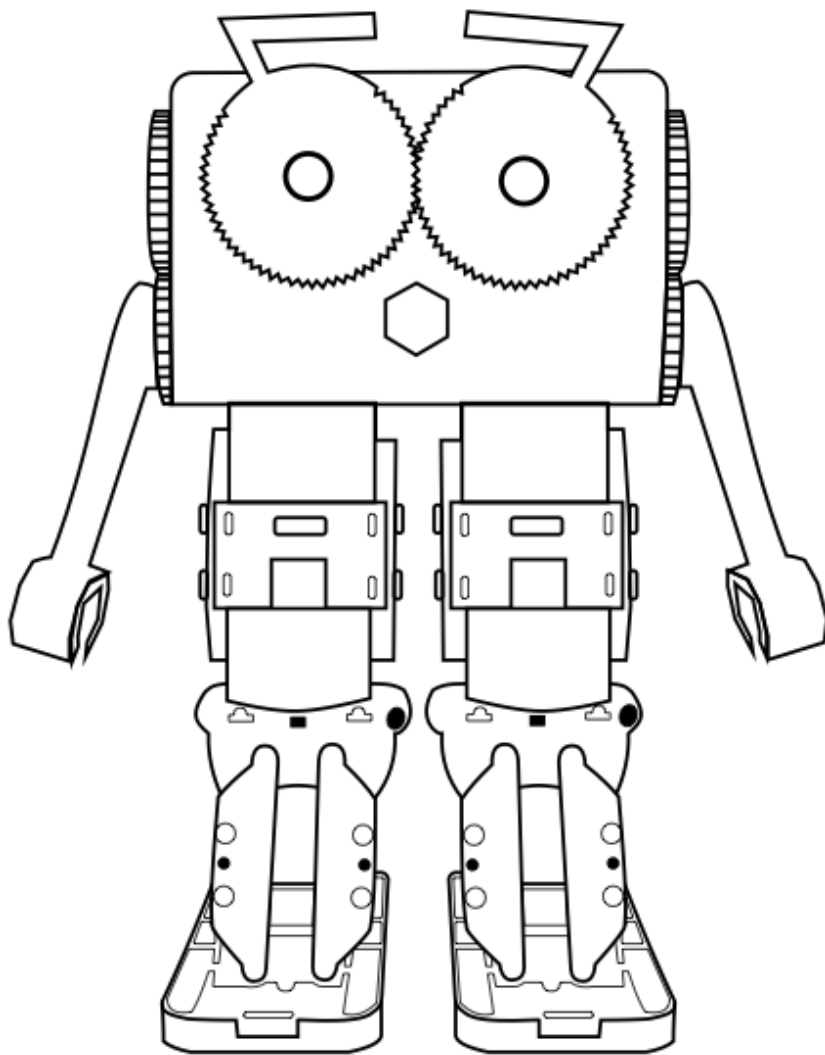
Testing _____'s Robot Instructions



Testing _____'s Robot Instructions



Try writing down some things that you think Marty will be able to do
- we've added one idea to help you out!



Walk forwards

Connecting to a Marty

You will need to replace the IP address so that you connect to your Marty – ask your teacher for help with this if you are unsure of your robot's IP address

```
from martypy import Marty  
mymarty = Marty('socket://192.168.0.XXX') #Example IP
```

Lesson 2 – Exploring MartyPy Documentation

What do you think the following commands will do?

```
mymarty.hello()
```

```
mymarty.walk()
```

```
mymarty.celebrate()
```

Have a look at some of the snippets from different pieces of documentation

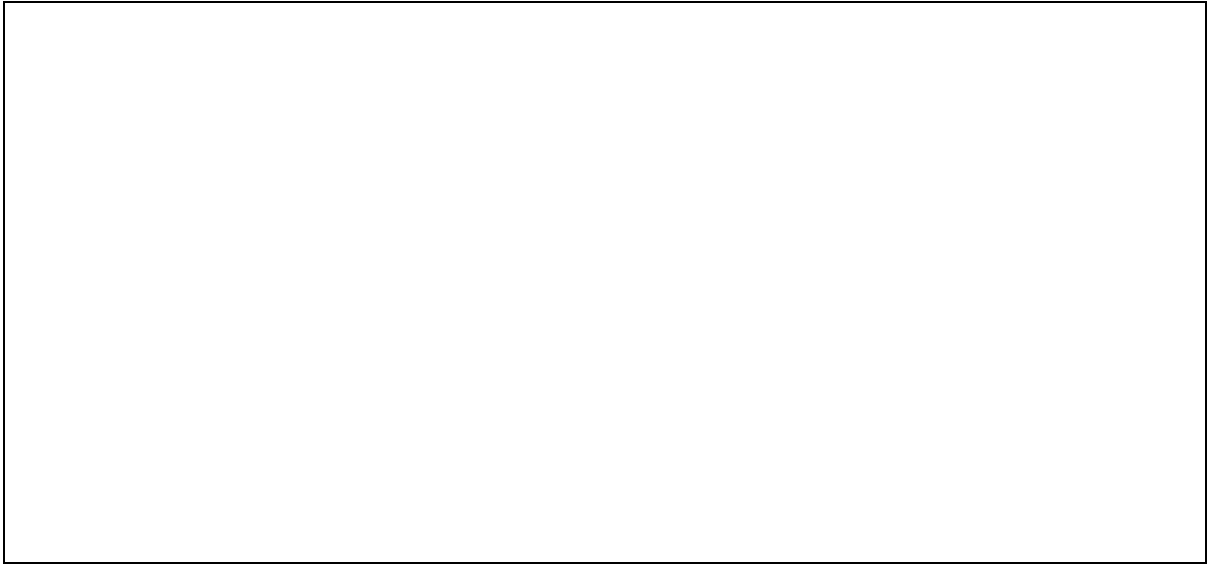
- What's good and useful about them?
- What could be improved? What would make them better?

<pre>lean(direction, amount, move_time)</pre> <p>Lean over in a direction, taken from <code>SIDE_CODES</code> taking <code>move_time</code> milliseconds</p> <pre>walk(num_steps=2, start_foot='auto', turn=0, step_length=40, move_time=1500)</pre> <p>Instructs the robot to start walking, with defaults set for all parameters. <code>move_time</code> is in milliseconds (1/1000 of a second), <code>step_length</code> is roughly millimetres. <code>turn</code> is an int8 in the range -128 to 127. 0 makes the robot walk straight ahead, negatives move to the Robot's right, positives to the left (i.e. positive Y-Axis direction).</p> <pre>eyes(angle, move_time=100)</pre> <p>Move the eyes to <code>angle</code> position, taking <code>move_time</code> milliseconds</p>	
Positives	Things to Improve

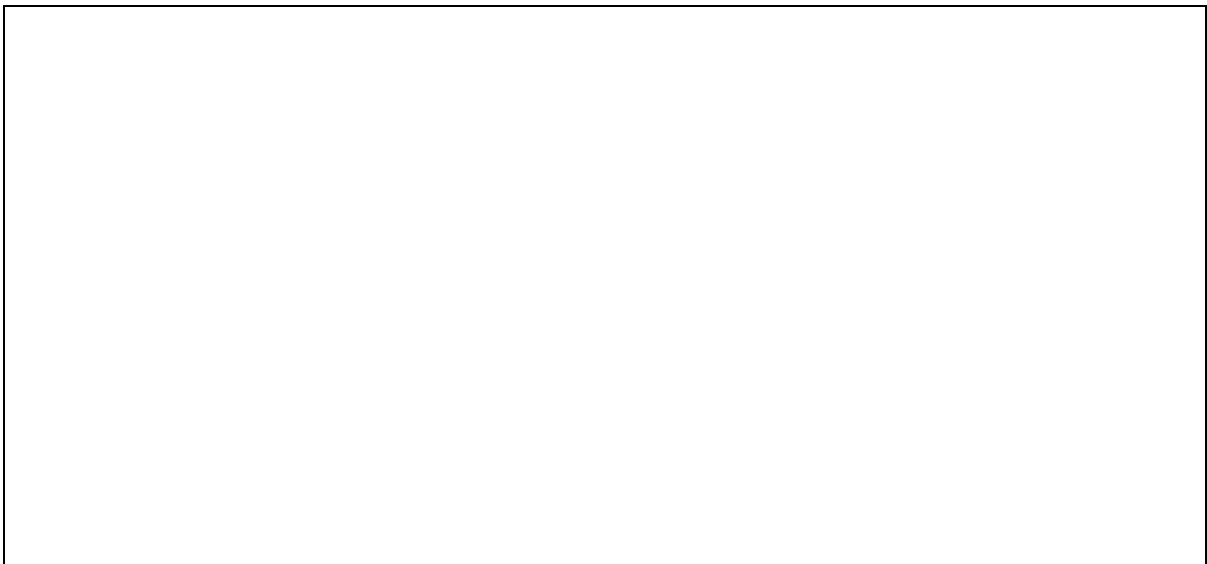
<p>bin(x)</p> <p>Convert an integer number to a binary string prefixed with "0b". The result is a valid Python expression. If <code>x</code> is not a Python <code>int</code> object, it has to define an <code>__index__()</code> method that returns an integer. Some examples:</p> <pre>>>> bin(3) '0b11' >>> bin(-10) '-0b1010'</pre>	
Positives	Things to Improve

Feedback on My MartyPy Handbook

_____ 's Feedback

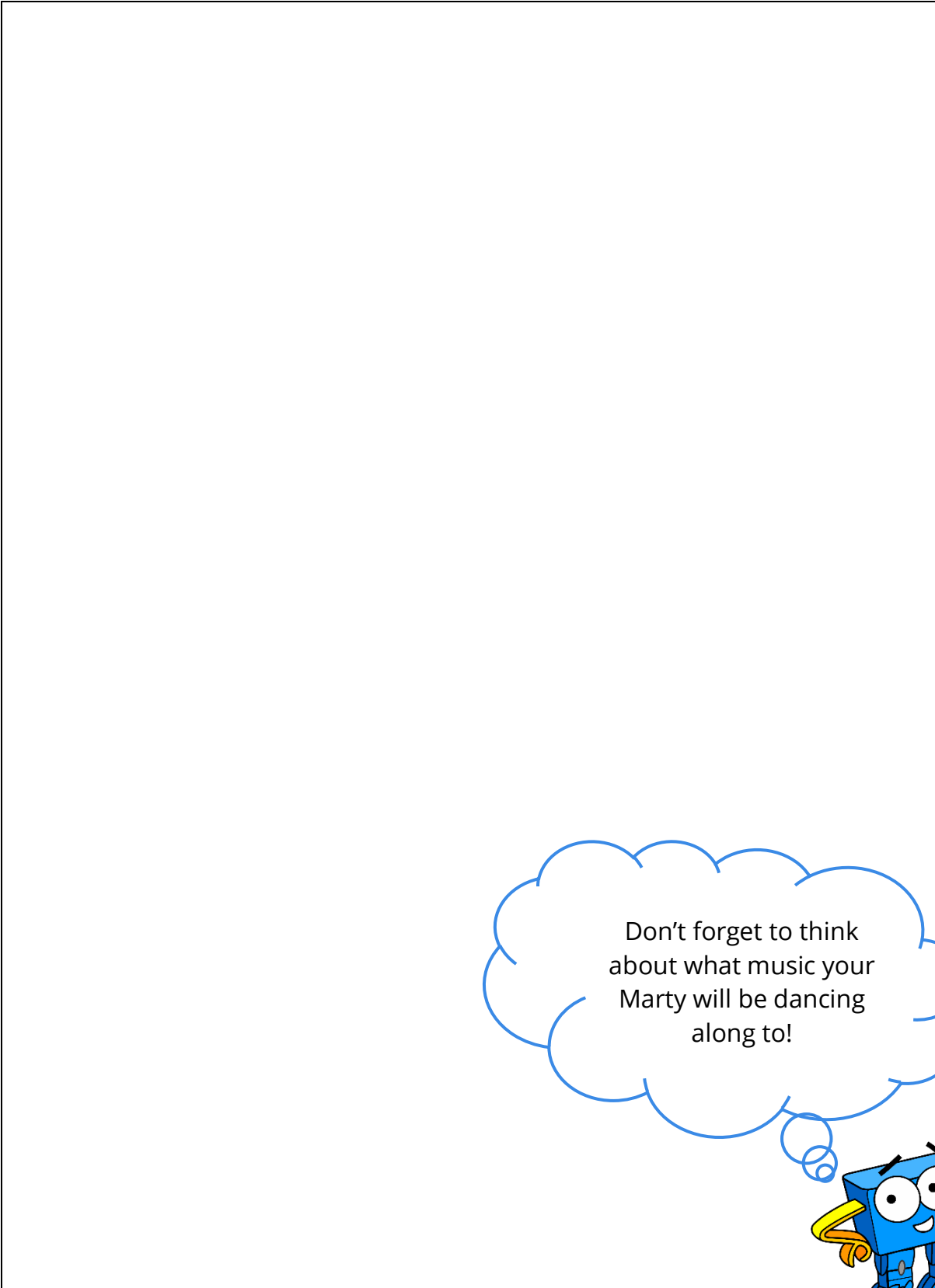
A large, empty rectangular box with a thin black border, intended for writing feedback.

_____ 's Feedback

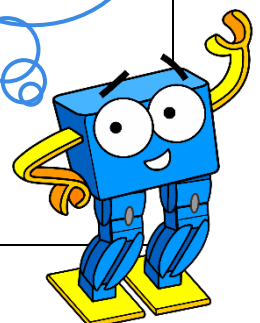
A large, empty rectangular box with a thin black border, intended for writing feedback.

Lesson 3 – Marty Python Dance-Off

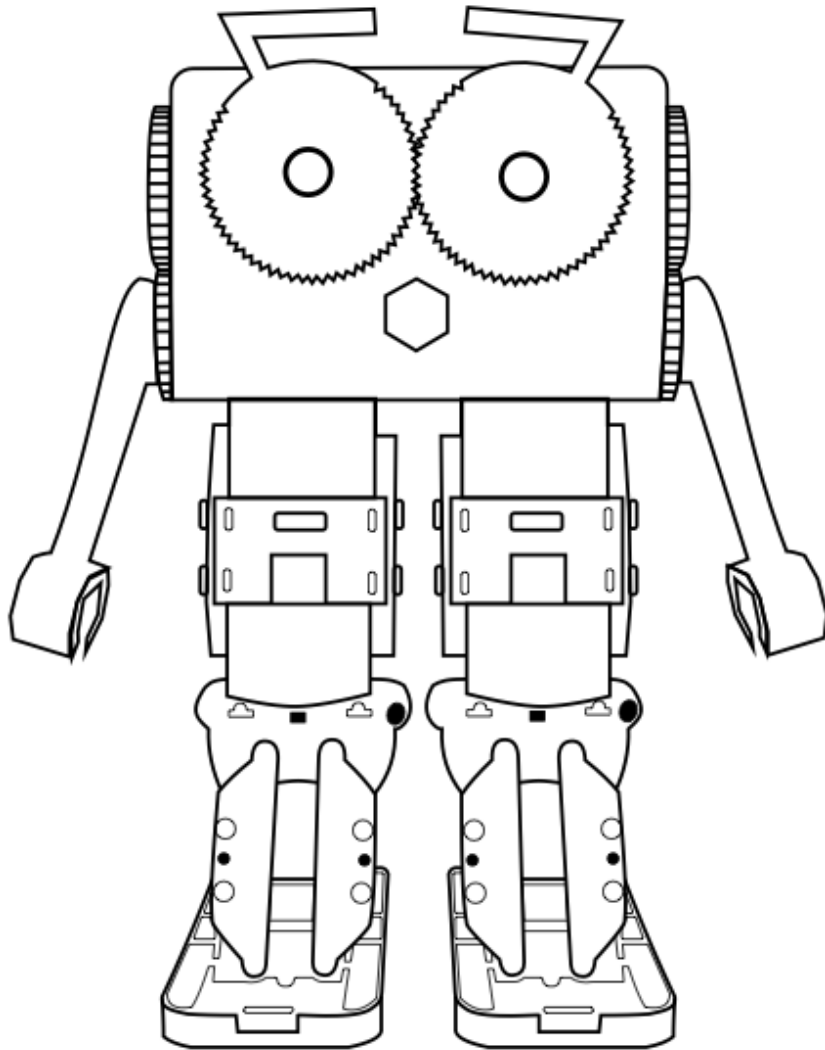
Use the space below to plan out your Dance Routine



Don't forget to think about what music your Marty will be dancing along to!



What Body Parts did you use in your Dance Routine?



Lesson 4 – Shoot a Music Video

Music Video Storyboard

