

Week 2 Student Handout - COGS 8

Links

[MakeCode Editor](#)

[Microbit Documentation](#)

[Debugging Microbit Guide](#)

[MakeCode Python Tutorial](#)

[Inchworm Project Description](#)

[Lecture Slides](#)

[Reading 1a - Brains Ming by Searle](#)

[Reading 1b - Meat Machines by Clark](#)

Topics covered

- Computational Theory of Mind (*Cognition in the brain*)
- BBC Microbit
- Inchworm Robots
- Servos

Class objectives

- ☐ Form Teams (~4 students) and Clans (2 teams)
- ☐ Lecture - CTM
- ☐ Sign out Microbits
- ☐ Begin to work on Inchworm Robots
 - ☐ Collect servos, cardboard, tape, etc

Warning

Make sure you do not lose your microbit. You will need to check them back in at the end, with all the cables and battery equipment. If you lose or break your microbit there will be a small fee (\$10) due to the Cognitive Science Department.

Expectations

You are expected to become familiar with the microbit, and continue learning python. You can practice with your microbit at home, these are for you check out and take home. You should begin reading one as there will be a quiz on the reading next week. This week's quiz will be on

python and the microbit documentation. You should exchange contact info with your team and make sure you all get to know each other.

Deliverables

Info

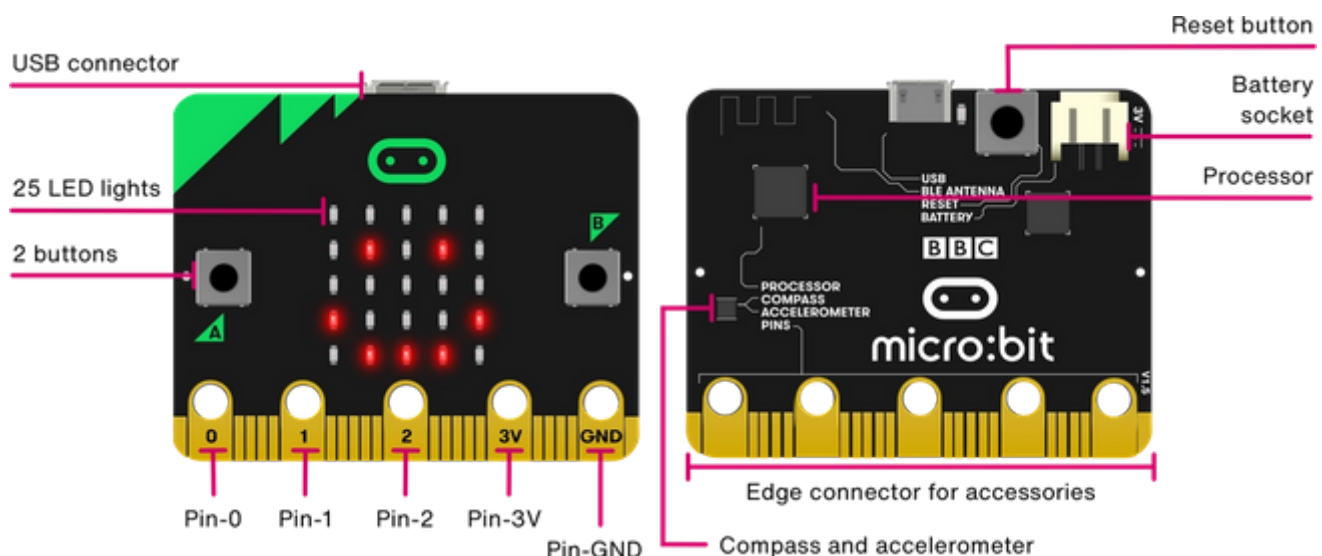
Please consistently check Gradescope for all due dates.

- ☐ Complete Inchworm Project and submit your team's code on Gradescope
- ☐ Complete Quiz 1 on Gradescope
- ☐ Watch the MakeCode Python Tutorial Video

Programming Activity - Computational Theory of Mind

The intention is not to build the best inchworm, sure we will have a race, but becoming familiar with microbits, python code, and servos (a basic robot) is the key point here!

Welcome to your Microbit



Inchworm Starter Code

```
# replace _?_ with a value

def on_button_pressed_a():
    pins.servo_write_pin(AnalogPin.P0, _?_) basic.pause(_?_)
    pins.servo_write_pin(AnalogPin.P0, _?_) basic.pause(_?_)
```

```
input.on_button_pressed(Button.A, on_button_pressed_a)
```

What does every line in this code do? Can you explain every part to your team or course staff?
We will come around and talk about it with you :)

Once you get this code to work, the inch worm servo should move when you click a button.
How can we make this go forever so we can enter the inchworm into the grand prix? Hint, take
a look at the `on_forever` in the Makecode documentation!