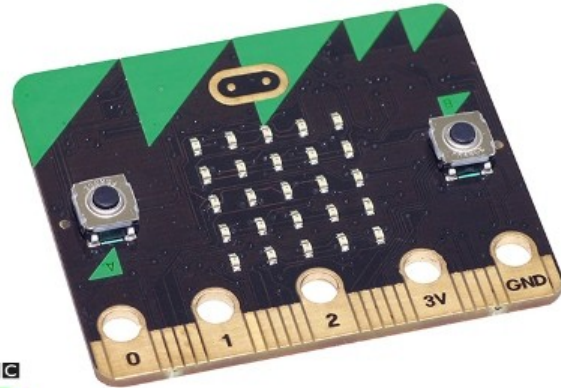


Micro:bits

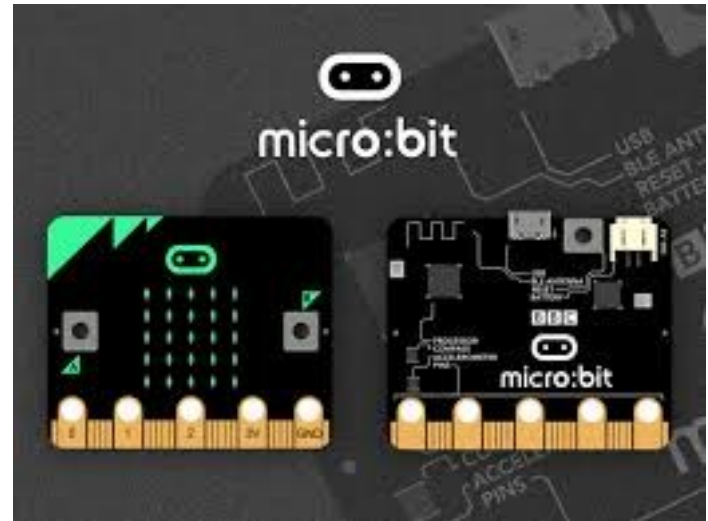


BBC

micro:bit

Background info

- Developed in the UK so all students would have access to a tool to learn about computer science
 - Computer science → the study of **how users can actually use a computer**
 - [Clip](#) to see how they are used



Need for Computer Science

- Computers are important to everyone's lives in the current world
- Computer examples



- Can we use them effectively until we know how they communicate with the user?

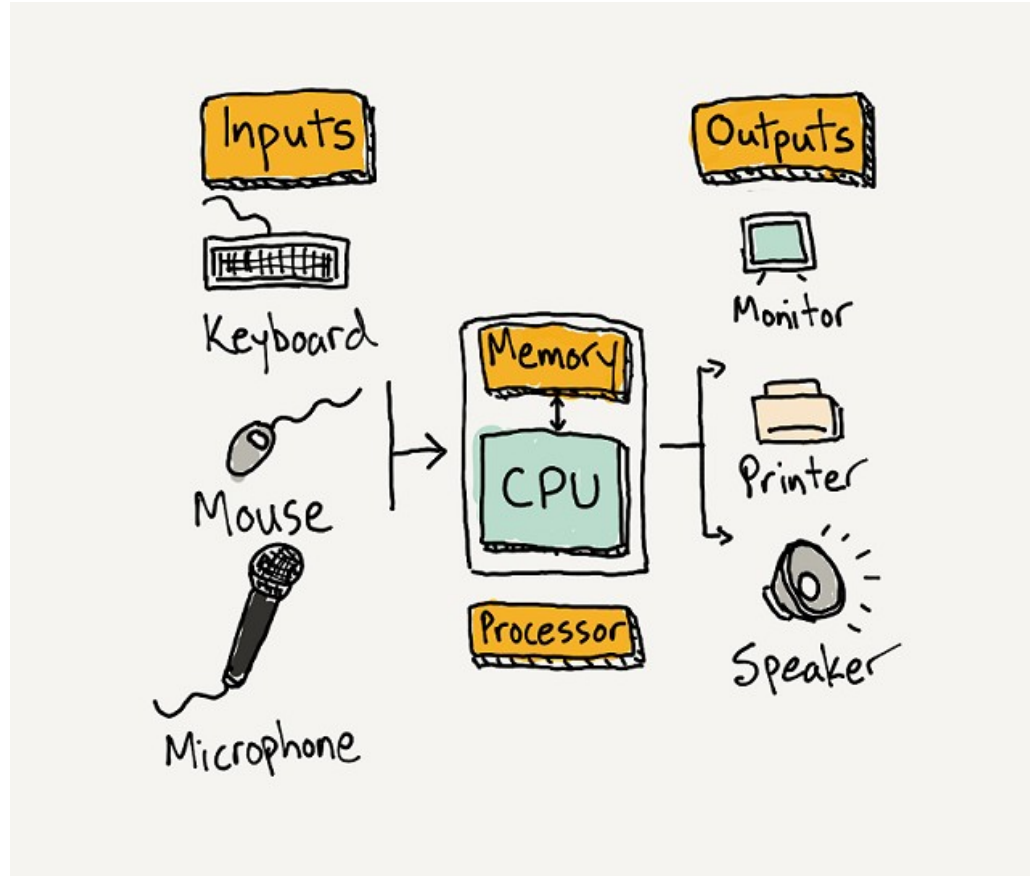
Computers

All computers have four parts:

- **Input**
- **Processor**
- **Output**
- **Memory**

How do these compare to humans?

- Input - Senses
- Output - Speech / Blushing
- Processor and Memory - Brain



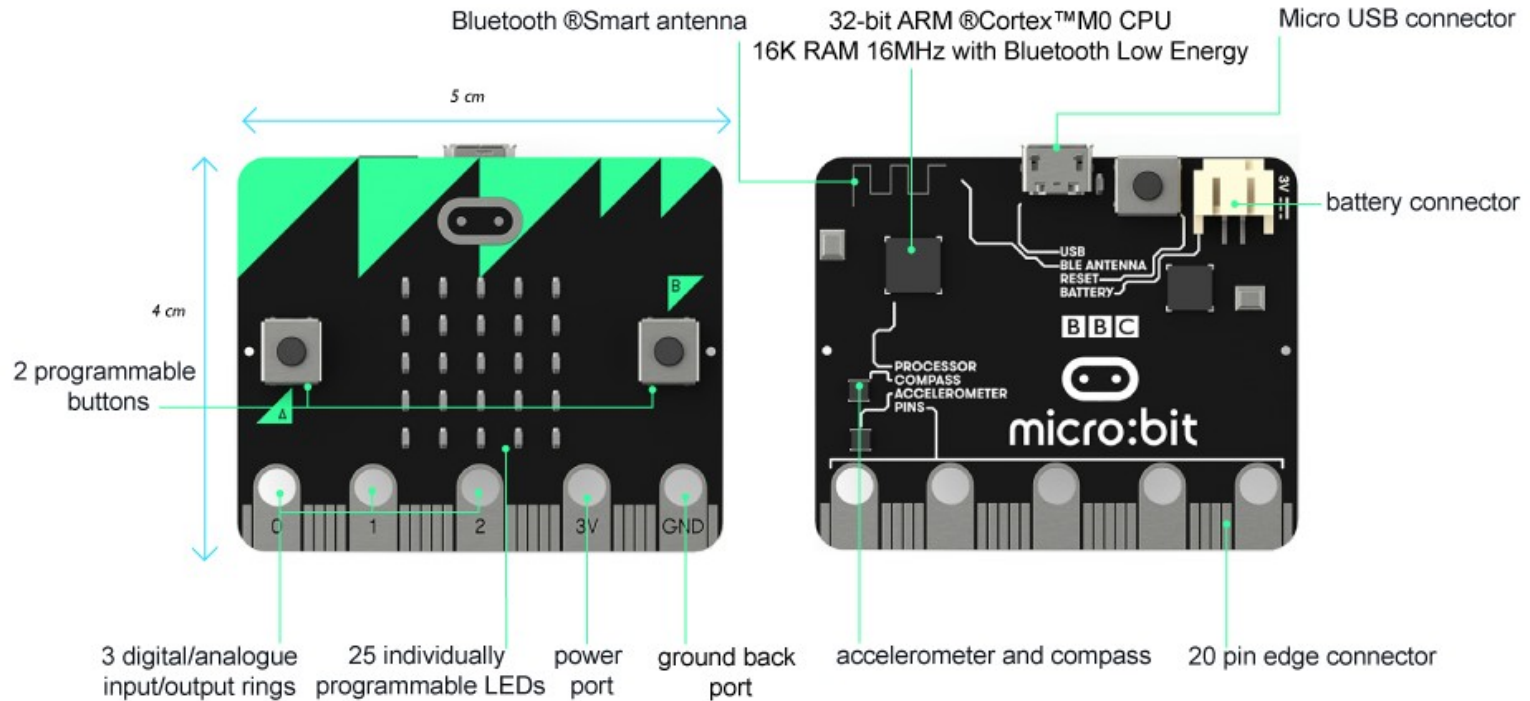
Micro:bit components

Can you locate these parts on the Micro:bit?

- Processor
- Inputs → buttons, pins, accelerometer, compass, light sensor
- Outputs → LED lights, pins, Bluetooth

(Memory is 16K RAM)

Micro:bit components



FRONT

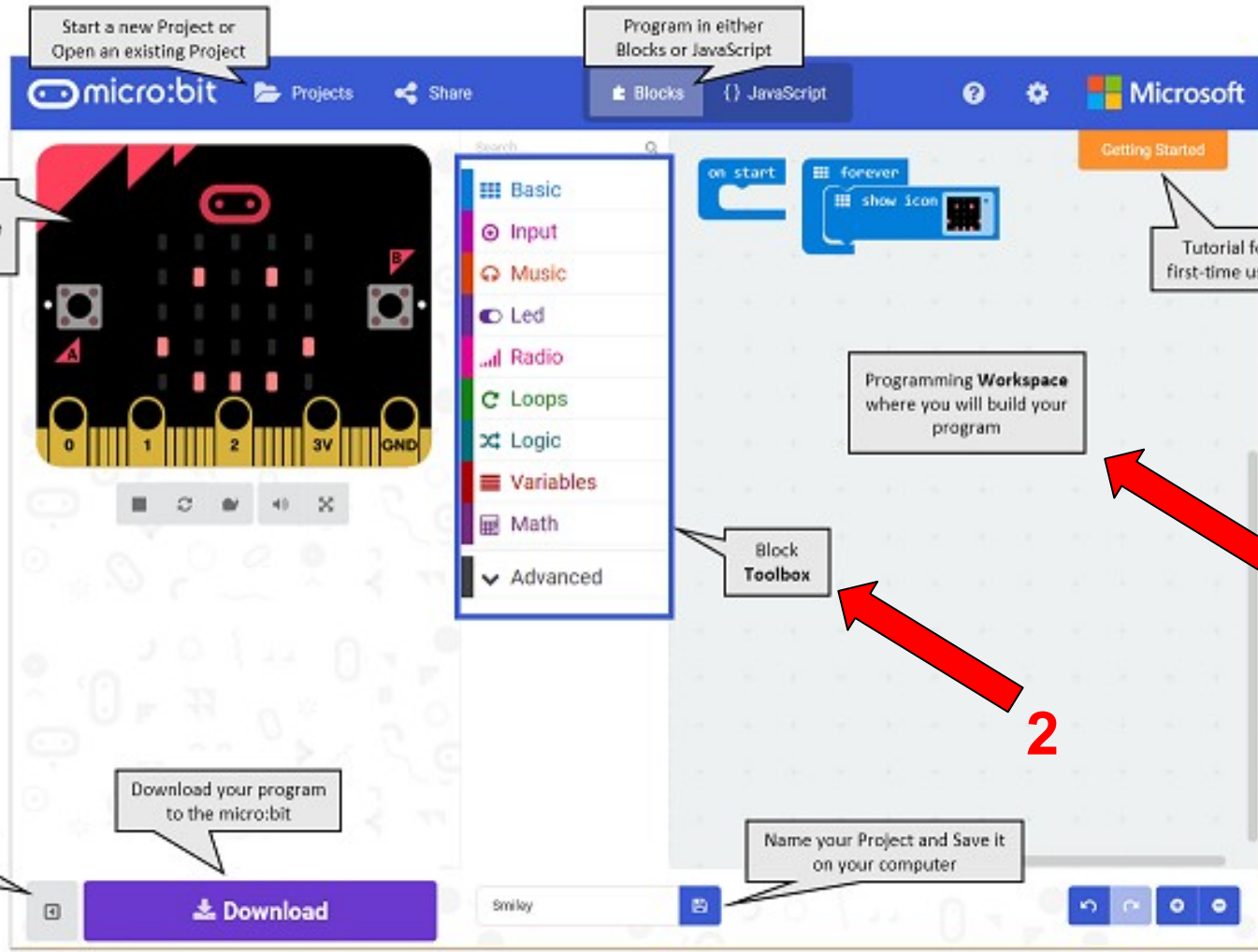
BACK

Using the micro:bits coding site

Coding is done online at <https://makecode.microbit.org>

Three main parts:

1. Workspace - where the code is written
2. Toolbox - what you use to write the code
3. Simulator - what the code does to the micro:bit (lets you see what happens before you download the code)



Start a new Project or Open an existing Project

Program in either Blocks or JavaScript

Getting Started

Tutorial for first-time users

Programming **Workspace** where you will build your program

Block **Toolbox**

Download your program to the micro:bit

Hide or Show Simulator pane

Name your Project and Save It on your computer

3

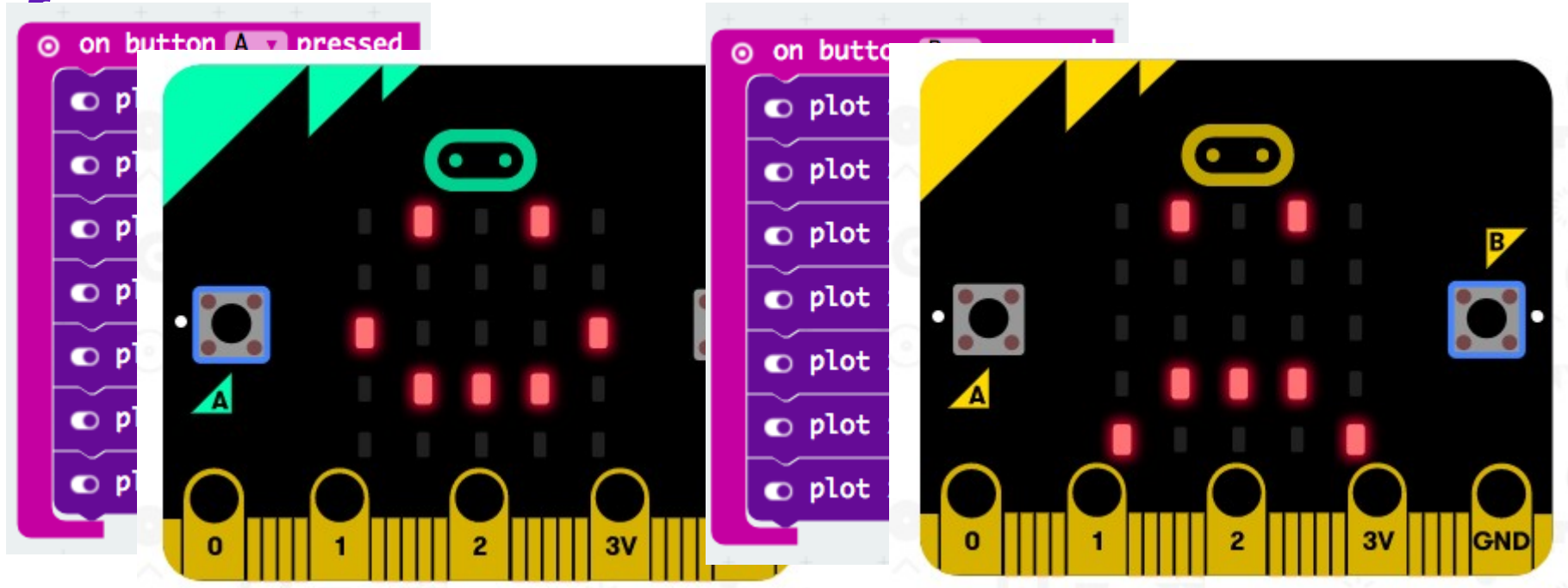
1

2

Download

Smiley

Using the micro:bit - Happy face, Sad



Loading the info to the micro:bit

Previewing in the simulator lets you see what happens before you download.

When the simulator shows your desired output, **SAVE** your work.

To get the programme on the micro:bit:

- Plug the micro:bit in using the USB
- Attach the battery pack to the micro:bit
- Click “Download”

