

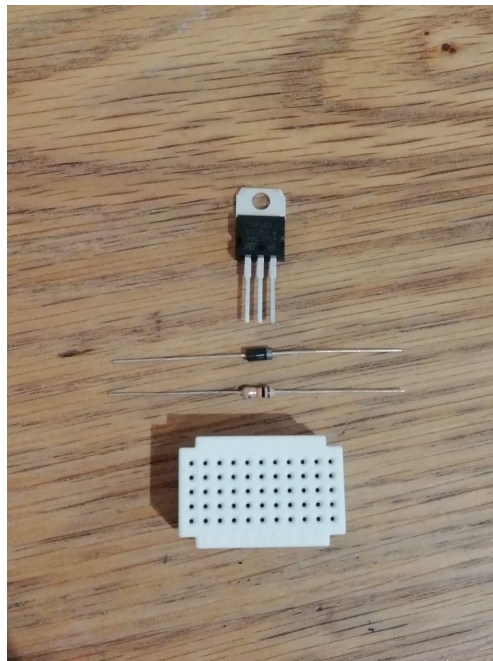
Motor Control Kit

Raspberry Pi and BBC Microbit

Components and creativity included

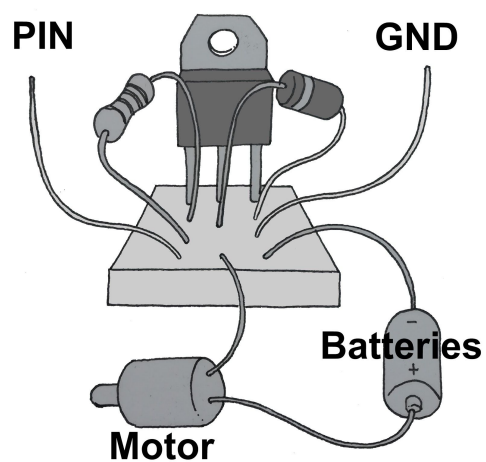
Components

The components can easily be sourced from eBay in bulk really cheaply. As well as a breadboard and wires, you will only need a TIP120 transistor, a 1N4004 diode and a 1k resistor.



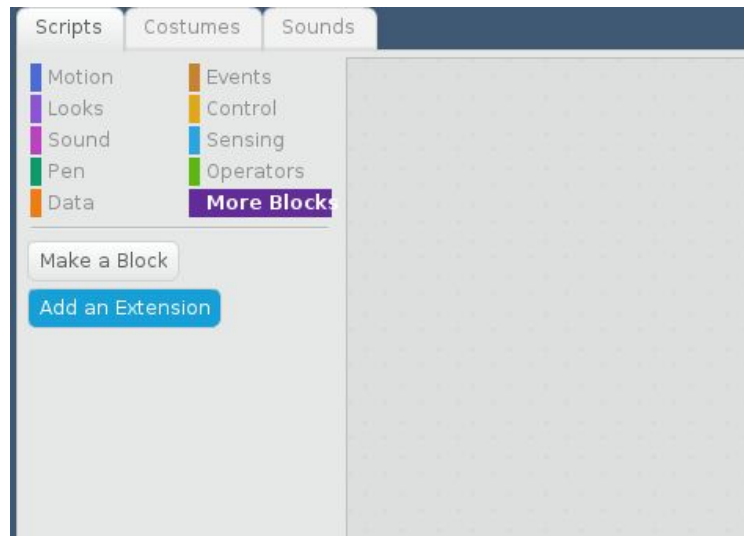
Assembly

Assemble them on the breadboard as shown in my drawing below and you're good to go.

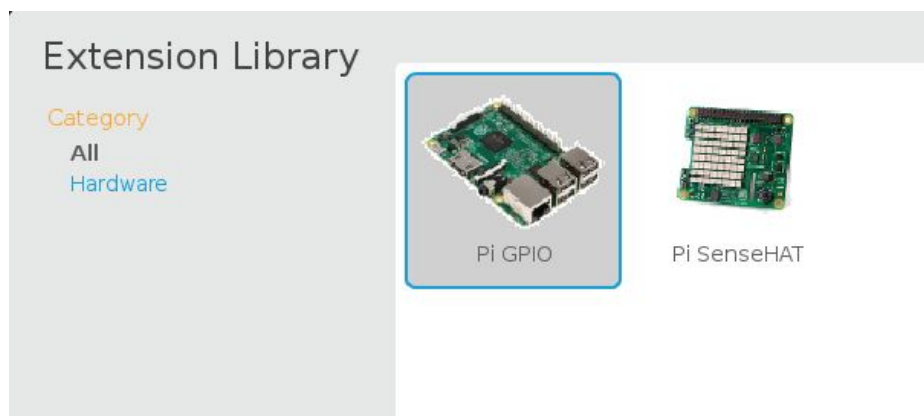


Raspberry Pi

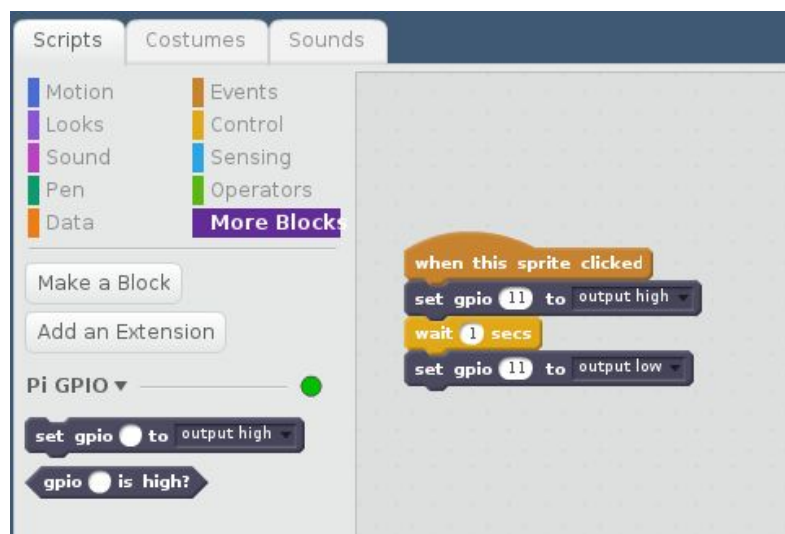
Open up Scratch 2 from the main menu and click on the ADD AN EXTENSION option within the MORE BLOCKS section.



Select the PI GPIO from the Extension Library.

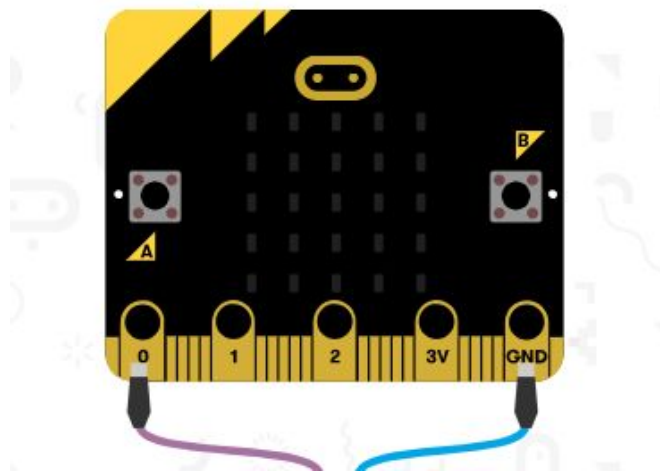


For this example we are using PIN11 and GROUND on the Raspberry Pi. Assemble the blocks as shown for a sprite. Once complete, whenever the sprite is clicked on screen your motor should turn on for a second before turning off again.



BBC Microbit

In this example we'll be using PIN0 and GND on the Microbit as shown.



Assemble the blocks below. Once loaded onto your Microbit, pressing BUTTON A will turn your motor on and pressing BUTTON B will turn it off.

