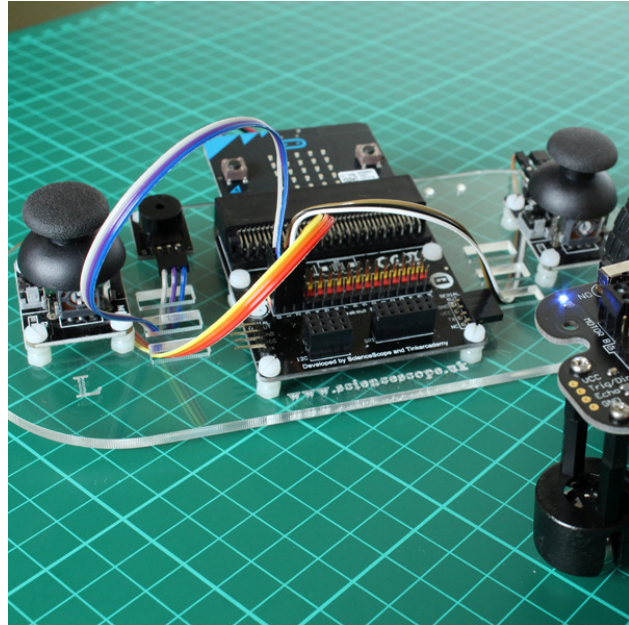


# GVS Controller Assembly

## Included in the GVS Controller Kit (See image 1)

- 1 x GVS Breakout Board
- 1 x Acrylic Board
- 2 x Joysticks
- 1 x Buzzer
- 15 x FF Jumper Cables
- 1 x Battery Pack
- 14 x M3x10 Nylon Screws
- 26 x M3 Nylon Nuts
- 2 x M2x10 Nylon Screws
- 4 x M2 Nylon Nuts



## Required

- 1 x Micro:bit
- 2 x AAA Batteries
- 1x USB Cable

## Assembly

1. Remove the film covering from the acrylic board. (Please note not all acrylic boards have a film cover)
2. Mount the battery pack onto the rear of acrylic board using 2 x M3x10 nylon screws and 2 x M3 nylon nuts. Use the two holes located at the top of the acrylic board in the middle. See image 2.
3. The next step is to attach the GVS breakout board. For this you will need 4 x M3x10 nylon screws and 8 x M3 nylon nuts.
  - a. 4 of the nylon nuts are going to be used as spacers between the breakout board and acrylic board.
  - b. Put one screw through one of the holes on the GVS breakout board and screw a nut onto it until the nut is tight. See image 3.
  - c. Repeat for all 4 holes. See image 4.
  - d. Next insert the screws through the 4 holes in the middle of the acrylic board and fasten the remaining 4 nuts onto the ends until tight and secure. See image 5.
4. The two joysticks now need to be attached to the acrylic board with one going on the left side and one on the right. Each joystick will need 4 x M3x10 nylon screws and 8 x M3 nuts. Attach the joysticks in the same way as you attached the GVS breakout board. See images 6 and 7.

5. The final component to be attached is the buzzer. This can be attached to either the two holes to the left of the GVS breakout board or the two holes to right of it. To attach the buzzer you will need the 2 x M2x10 screws and 4 x M2 nuts. Again this is attached in the same way as the GVS breakout board and joysticks. See images 8 and 9.
6. Insert 2 x AAA batteries in to the battery pack.
7. Place your BBC micro: bit into the top of the GVS breakout board.
8. Your GVS controller is now ready for wiring and coding. See image 10.

### Activities

Activities can be found on our website using the following URL

<https://sciencscope.uk/product/microbit-gvs-controller-kit/>. Scroll to the bottom of the product description and click the links to download.

The zip file containing code for use with the Robo:Bit buggy can be downloaded using the following URL link <https://sciencscope.uk/wp-content/uploads/2017/05/S8073-Microbit-GVS-Controller-Kit-Robot-Controller.zip>

Image 1

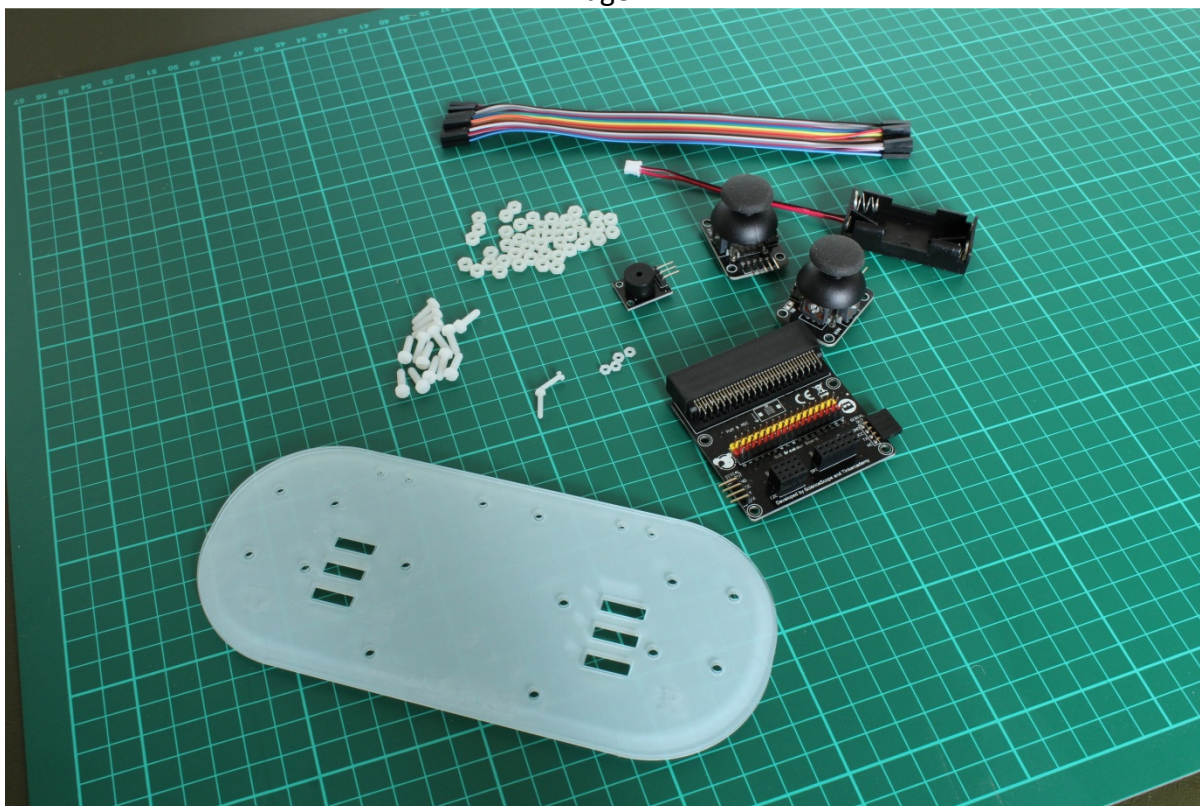


Image 2

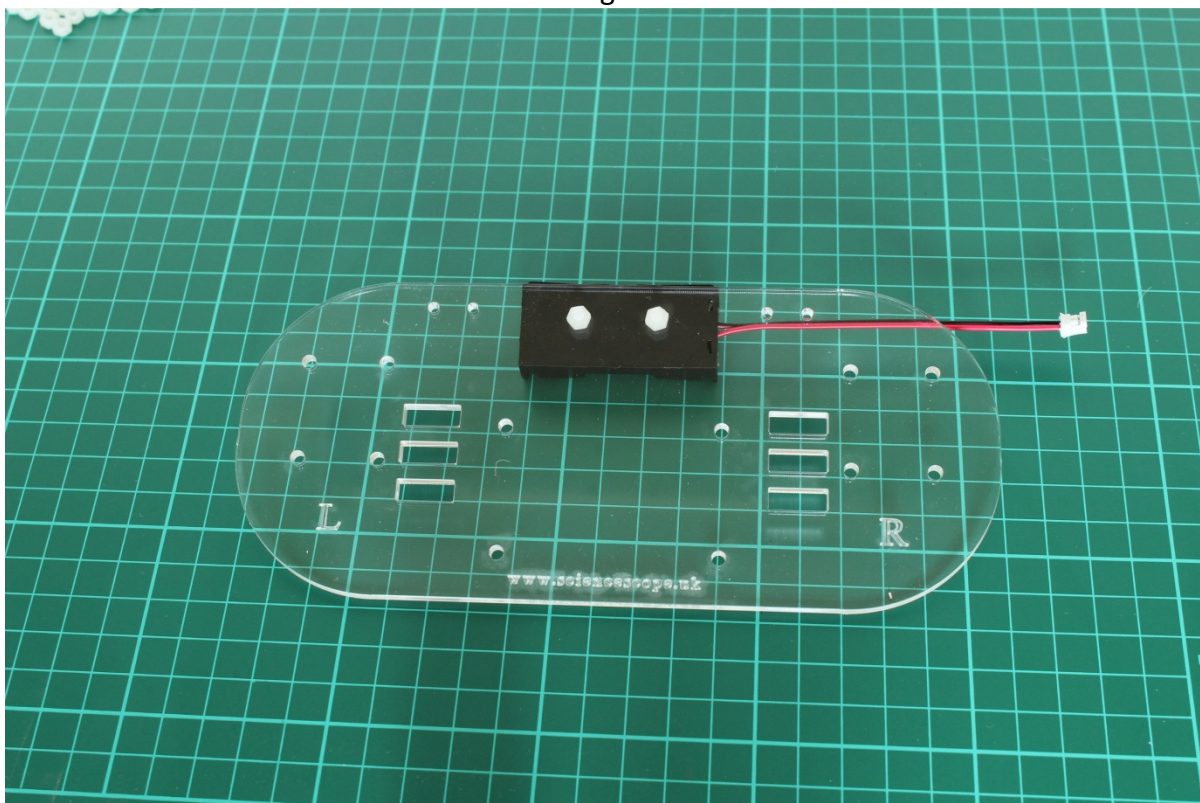




Image 3

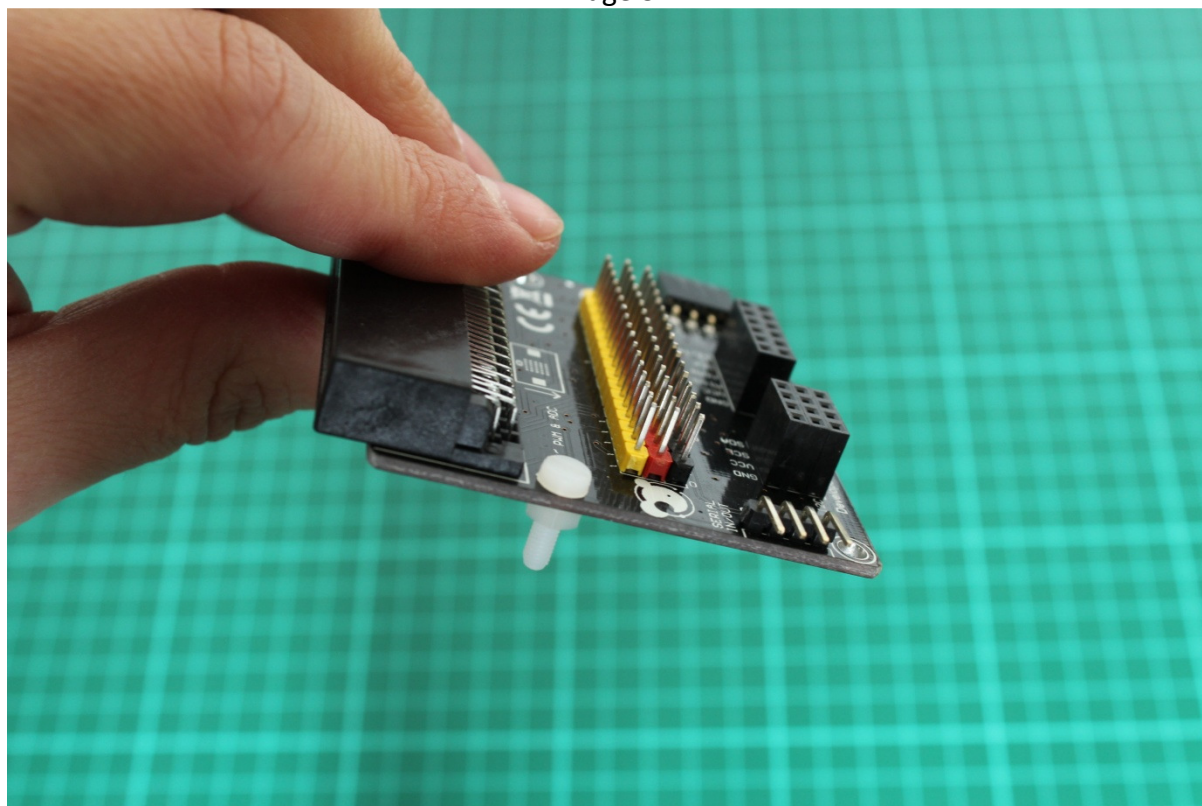


Image 4

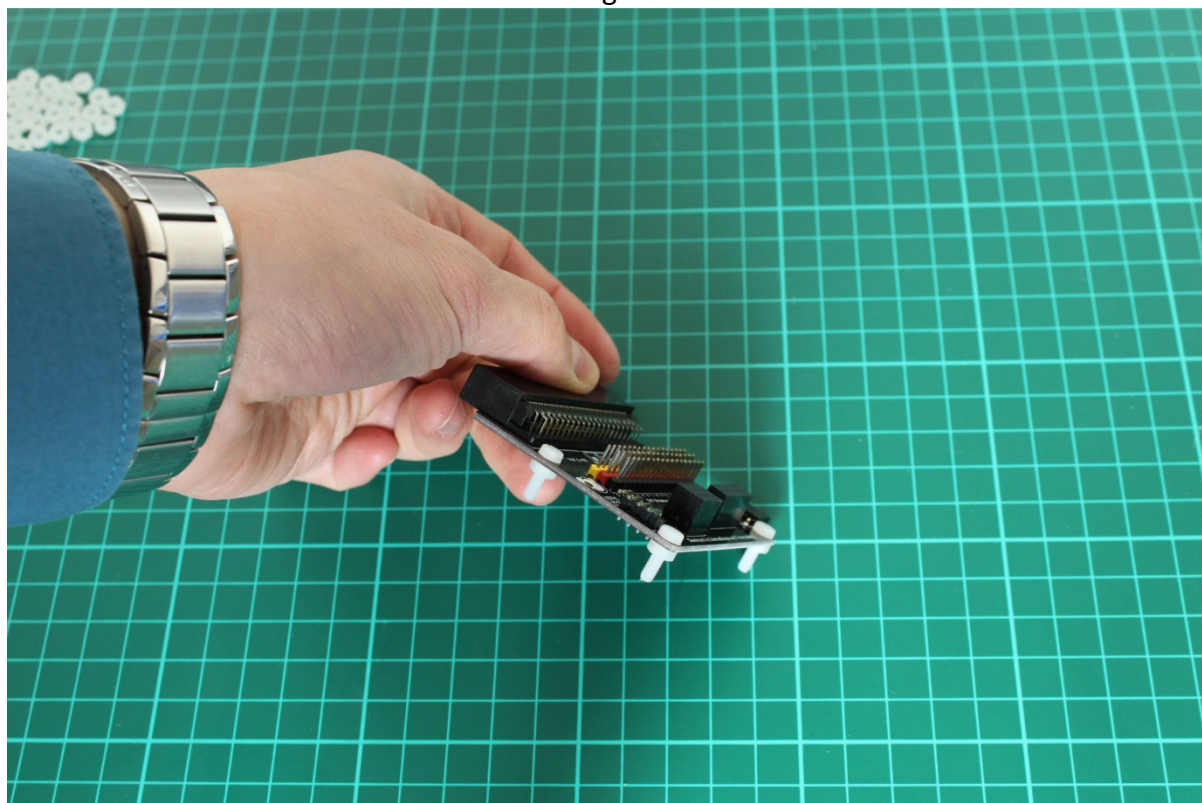




Image 5

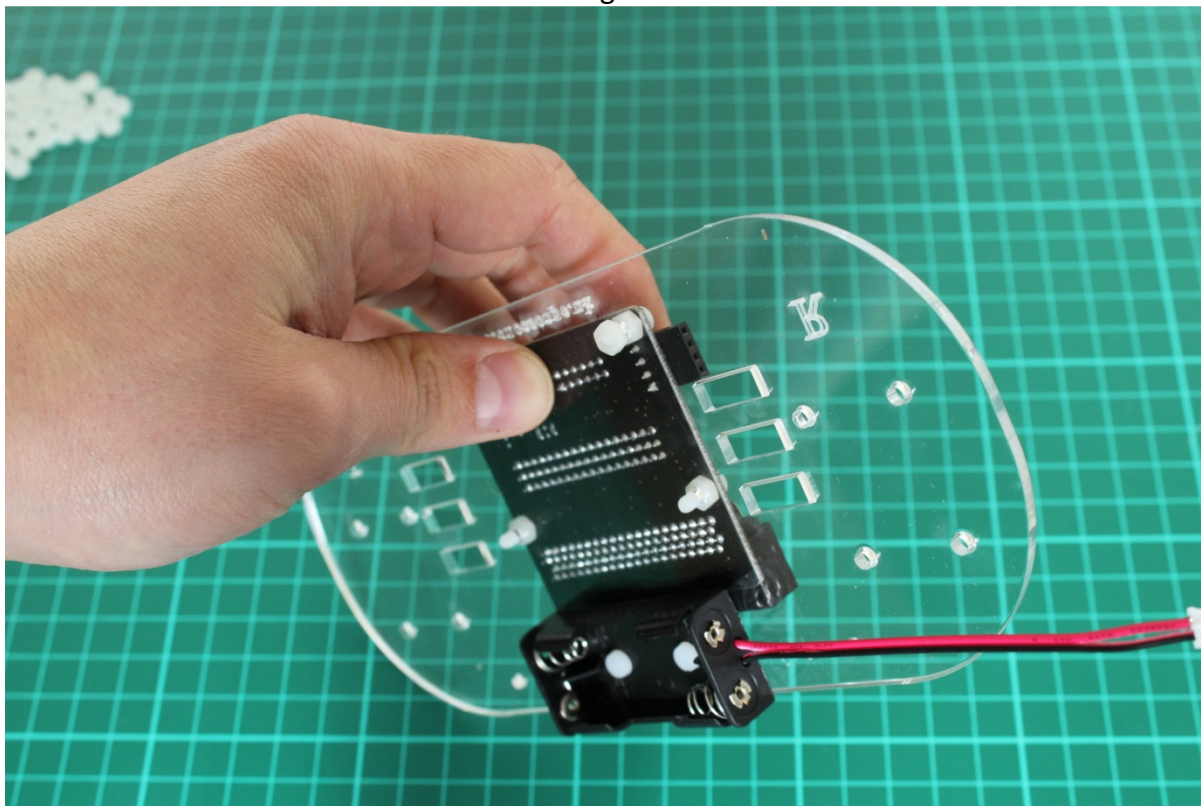


Image 6

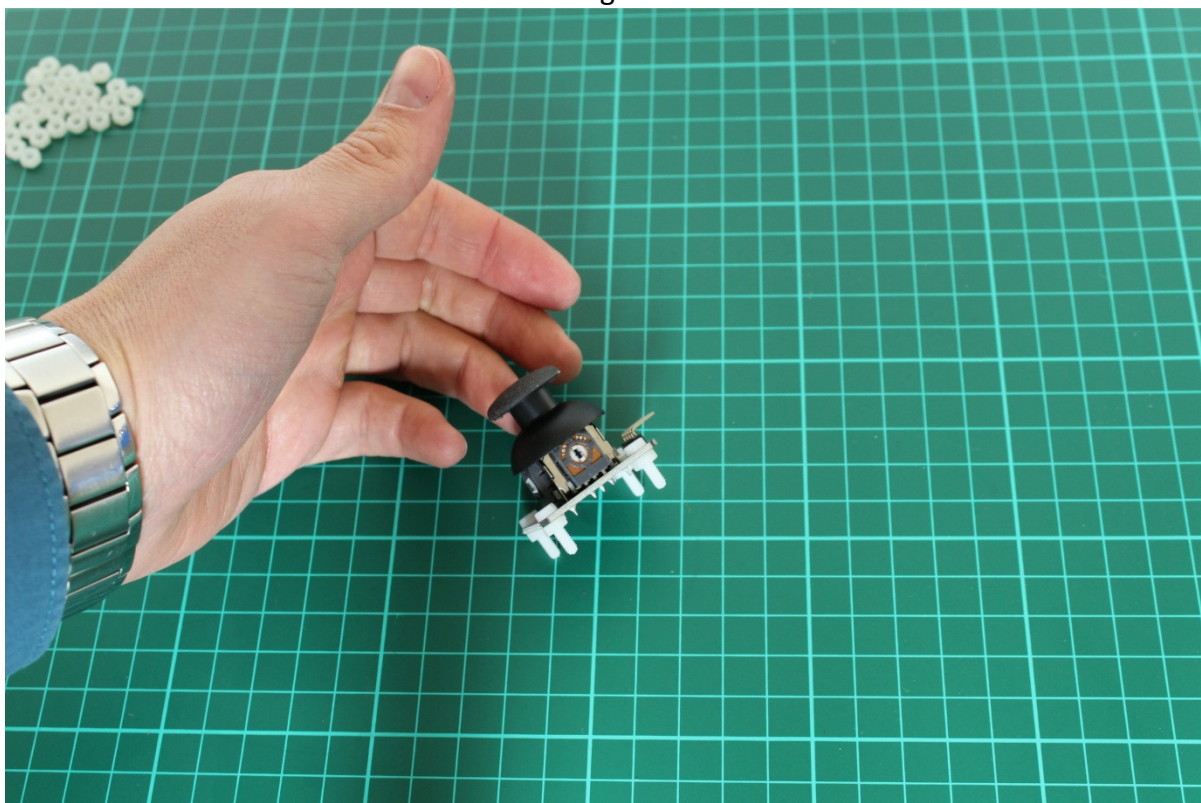




Image 7

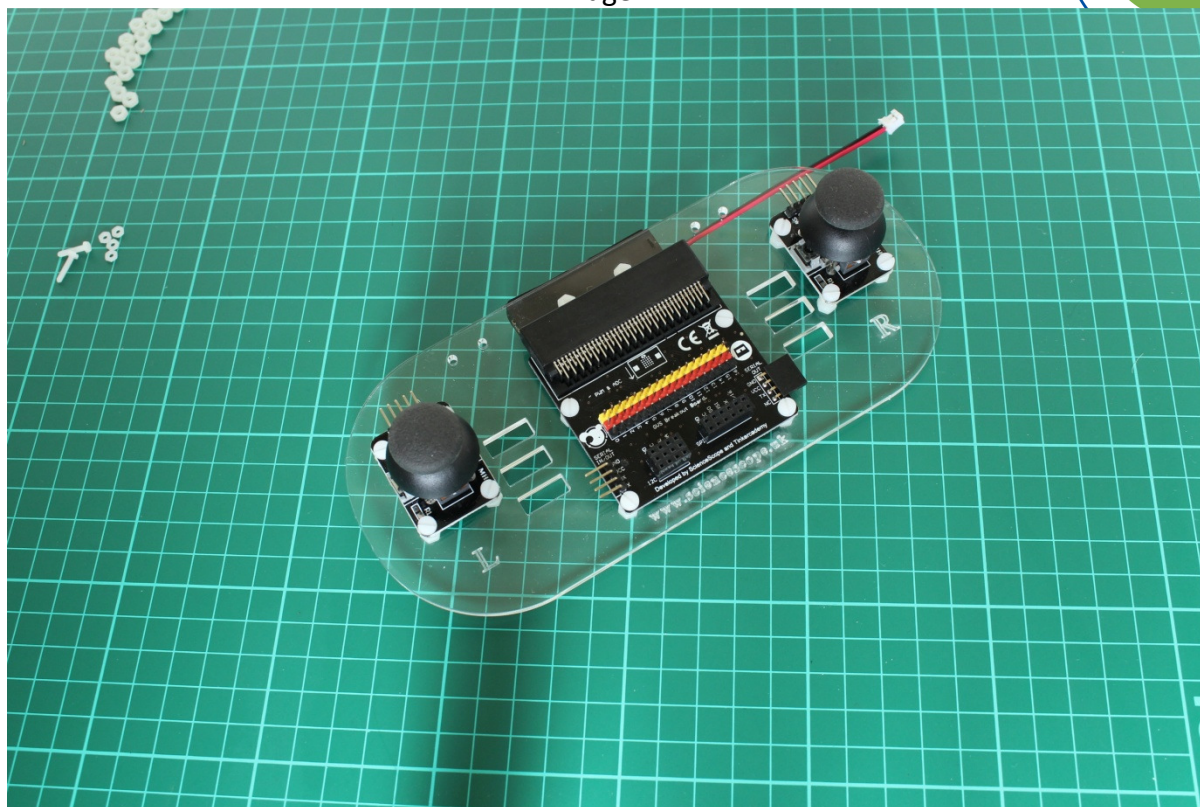


Image 8

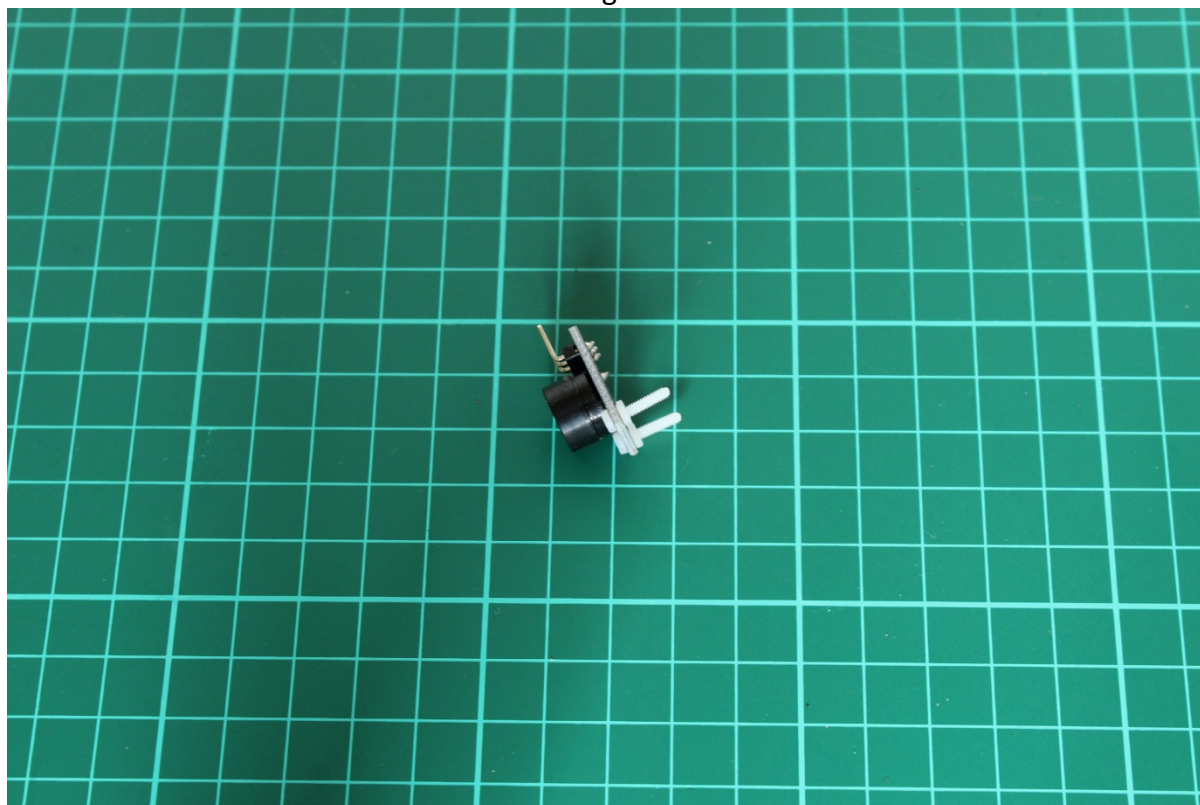




Image 9

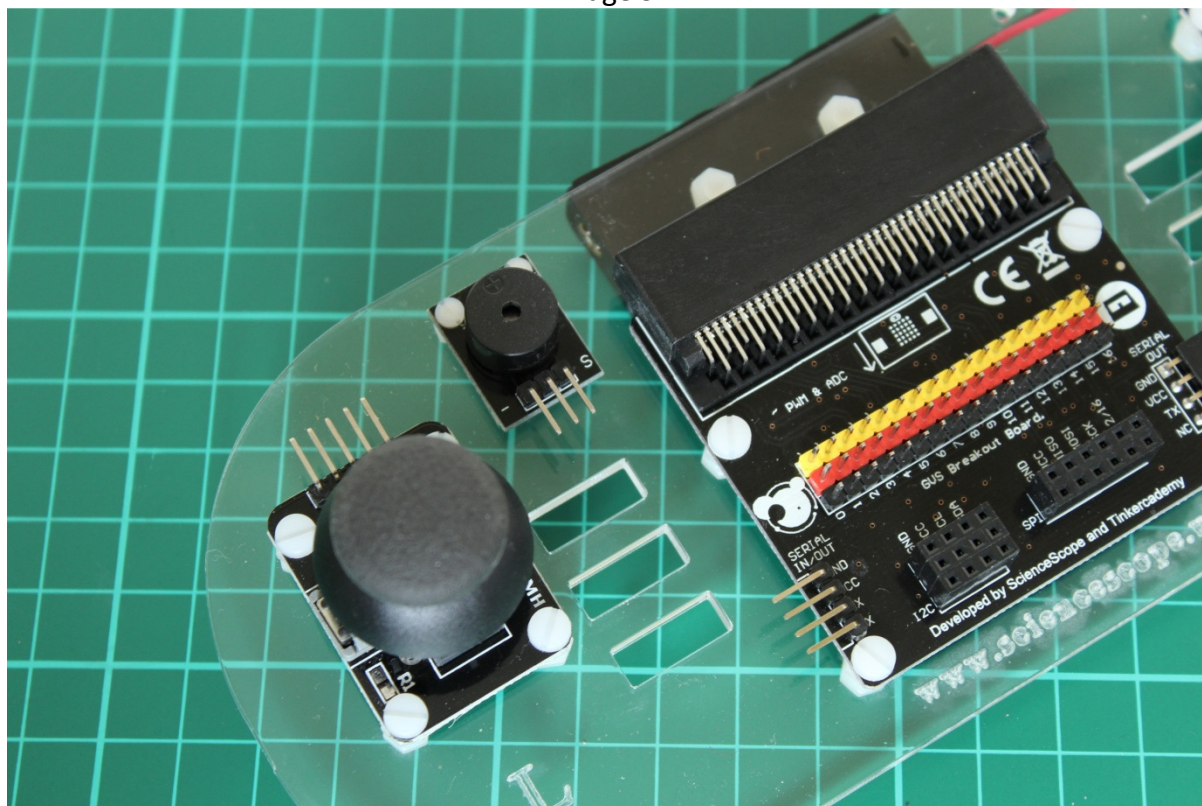


Image 10

