My-OTTO Arduino connections

D0 – Bluetooth TX

D1 – Bluetooth RX

D2 – **D5** servos as per original design

D6 – button 1, if not used link to GND

D7 – button 2, if not used link to GND

D8 – Ultrasonic TRIGGER

D9 – Ultrasonic ECHO

D10 – LED Matrix CS

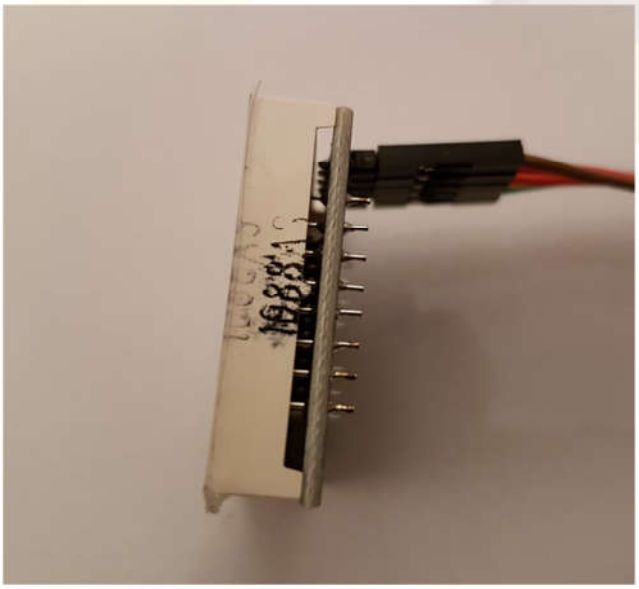
D11 – LED Matrix CLK

D12 – LED Matrix DIN

D13 – Buzzer

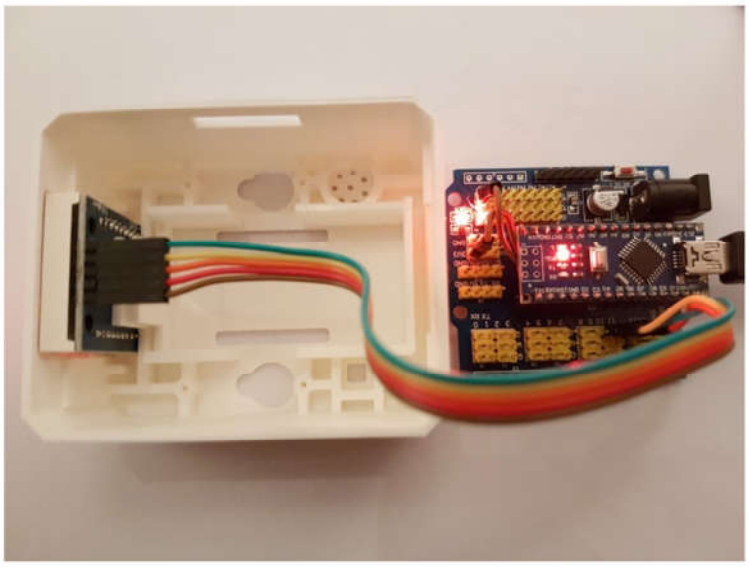
A7 – link to +5v

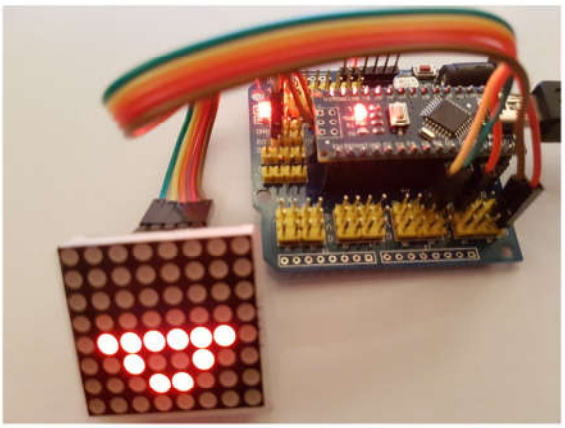
Ensure the MAX7219 Led Matrix is soldered direct to its PCB, make sure first that the actual Led matrix is the correct way around – this can be done by holding it in place and connecting it to the Arduino Nano with the code running, if it is the correct way around you will see the mouth, you may have to bend the pins slightly.



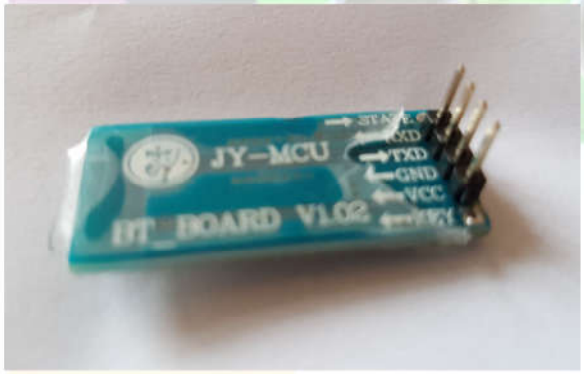
The plug needs to be bent as shown, at near right angle to the PCB or it will hit the Ultrasonic module mounted in the head.

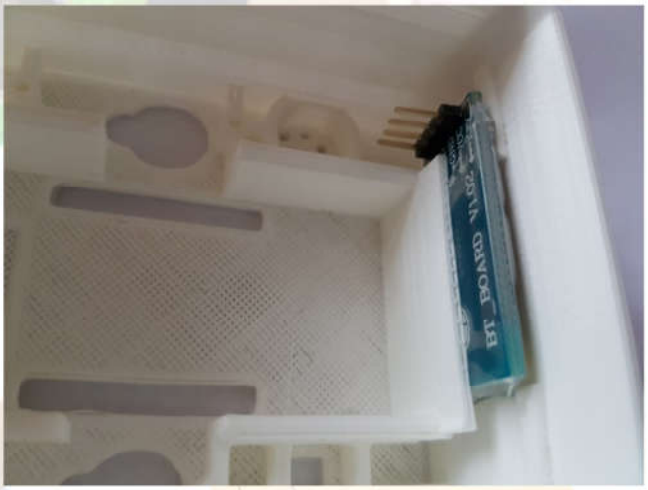
The plug will be a the top of the matrix, it should slide into my modified body, please print the body with a resolution of at least 0.15mm to get the best results.



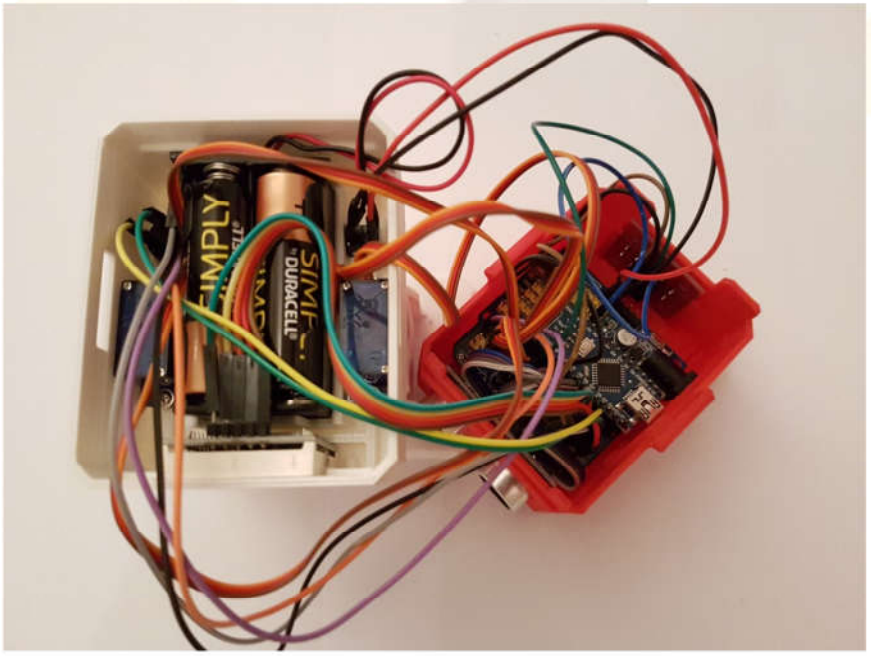


Reposition the pin headers on the Bluetooth module as below so that it can fit into the body as shown.

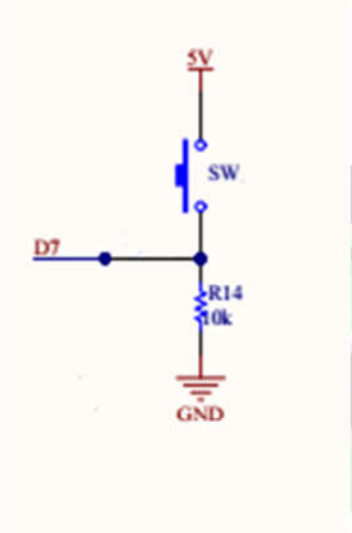




A little tight for space !



If using push buttons for mode selection, they will need pull-down resistors.



Space and slots to suit my pushbutton PCB have been created in the head.