

V1

Wiring of the modules is easily accomplished using Dupont wires. They come in a variety of lengths with terminals being male-male, female-female or male-female.

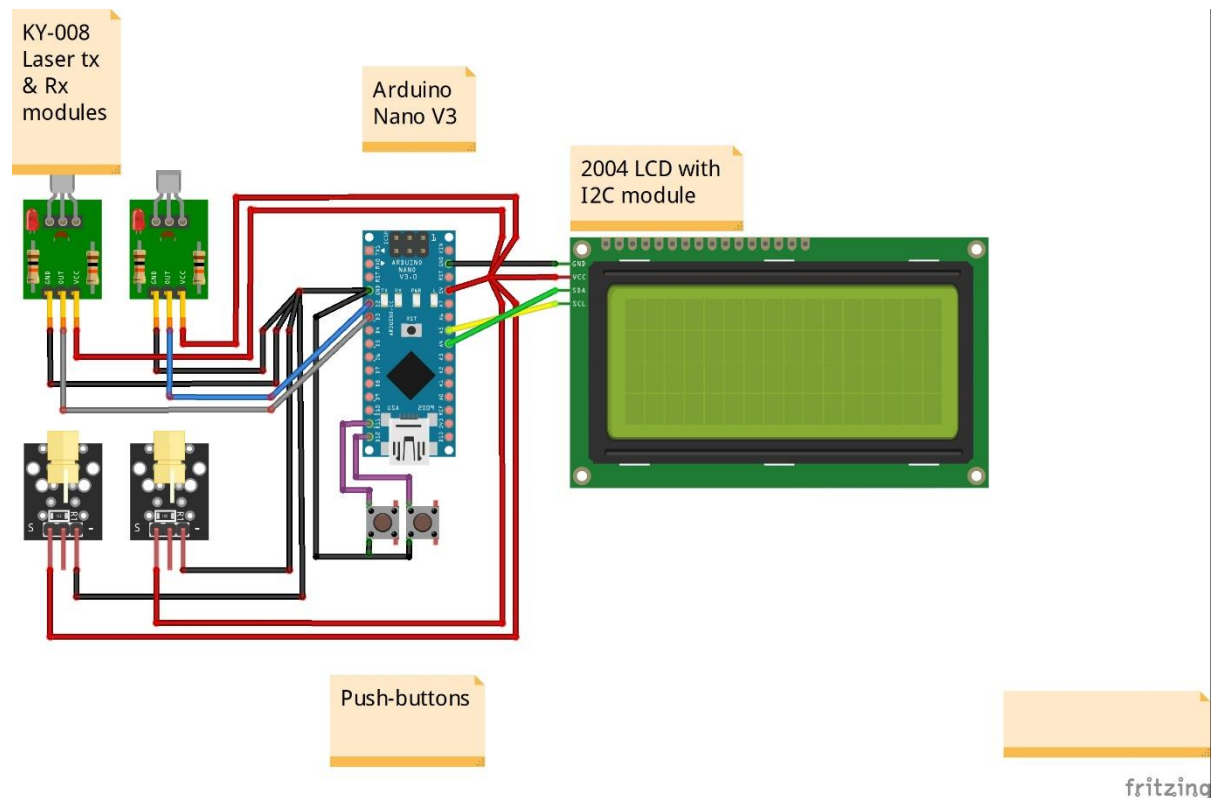
Using a screw-terminal breakout board, male-female are most suitable. Shorter lengths can be used for the LCD & buttons, to make wiring neater.

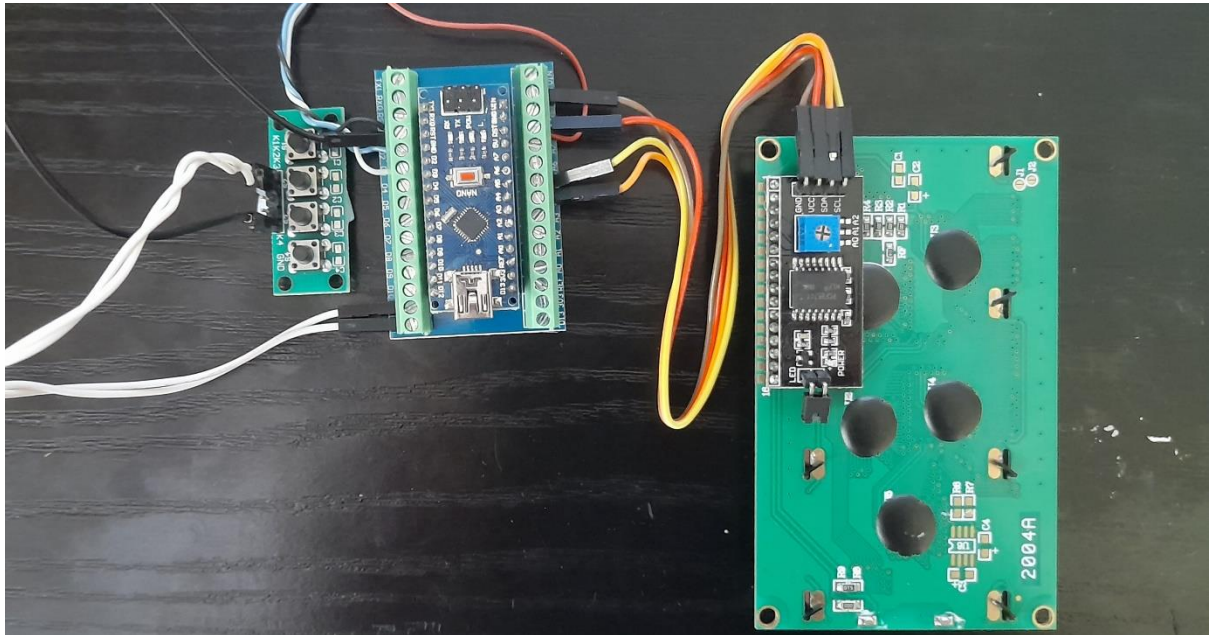
There is only one 5V output on the board and two 0V (or GND). It will not be possible to fit all of these wires into a single screw terminal.

One solution is to gather all the 5V ends together, cut off the connector and remove a small piece of the insulation. Terminate all of the wires into a choc-bloc and then just one wire from the choc-bloc will go to the screw-terminal on the breakout board. The same is then done with the 0V wires.

For a neater build, the wires can be daisy chained between the two rx & two tx, as shown in the schematic below, but would require additional connectors or soldering skills.

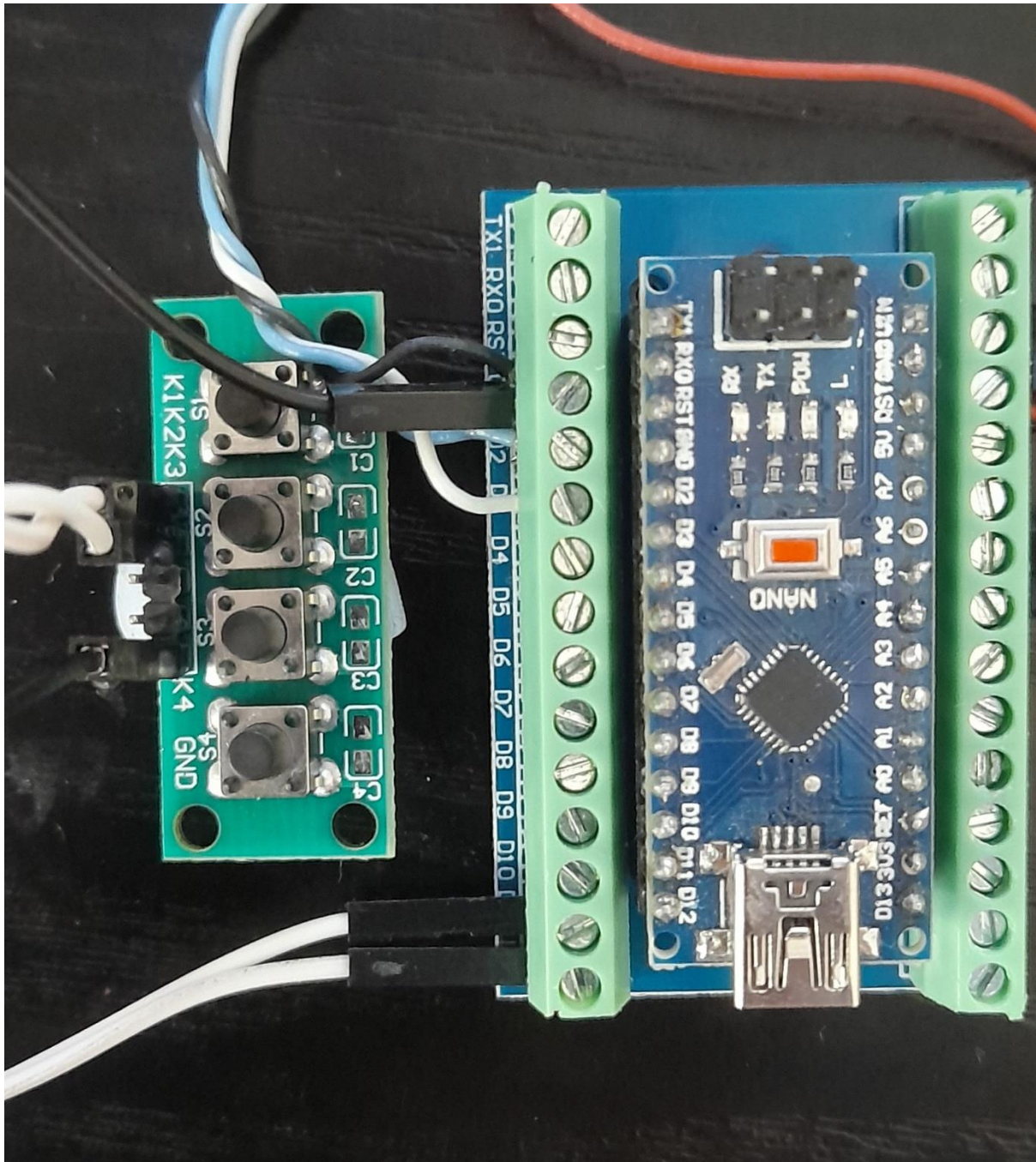
For the prototype, wires taken from an Ethernet cable were soldered directly to the sensors & daisy-chained for a neater build. These are the red, black, white & blue wires shown in the photographs below.





Overall picture showing wiring.

Note red, black, white & blue wires at the top of the photograph. These go to the sensors.

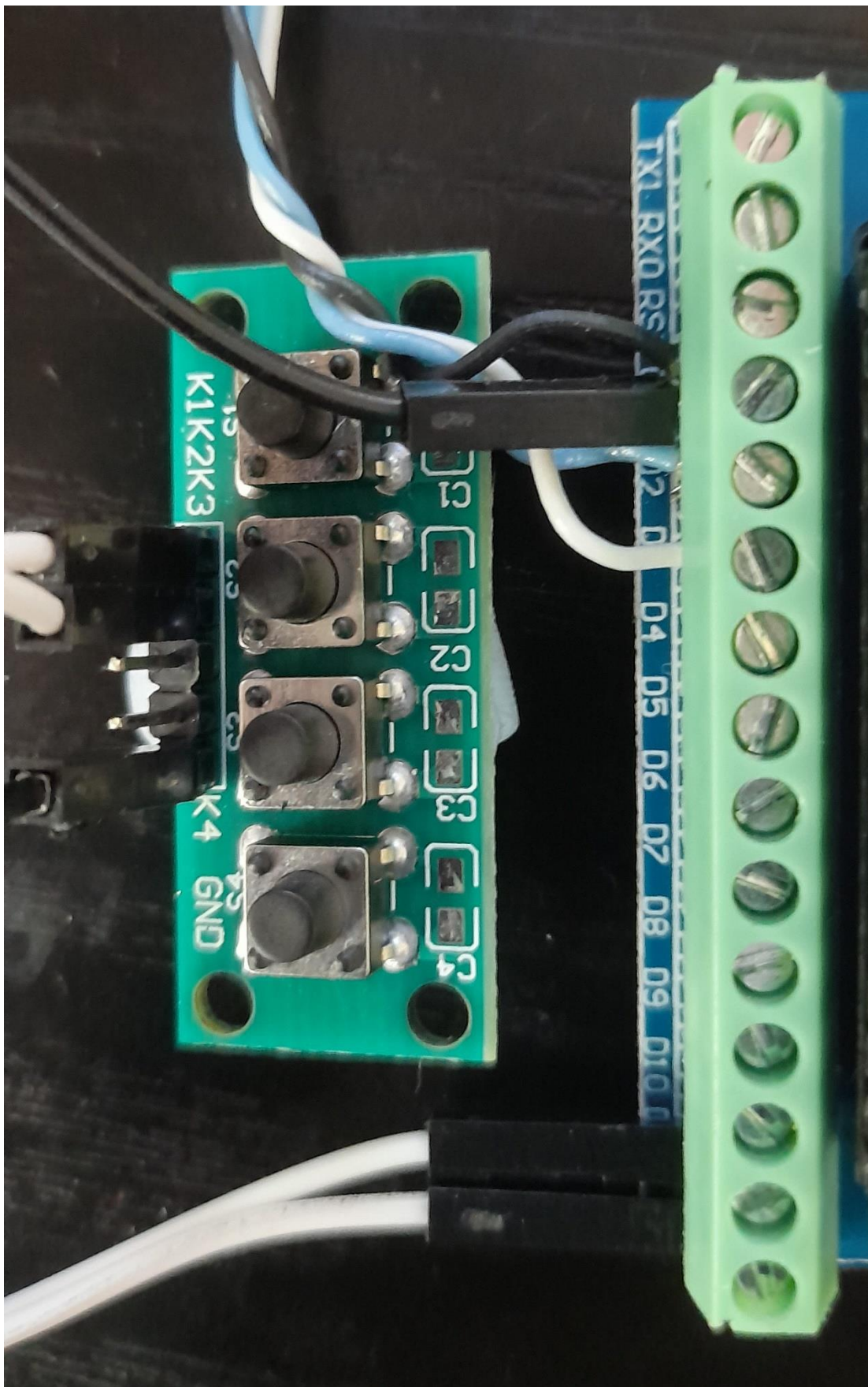


Button wiring.

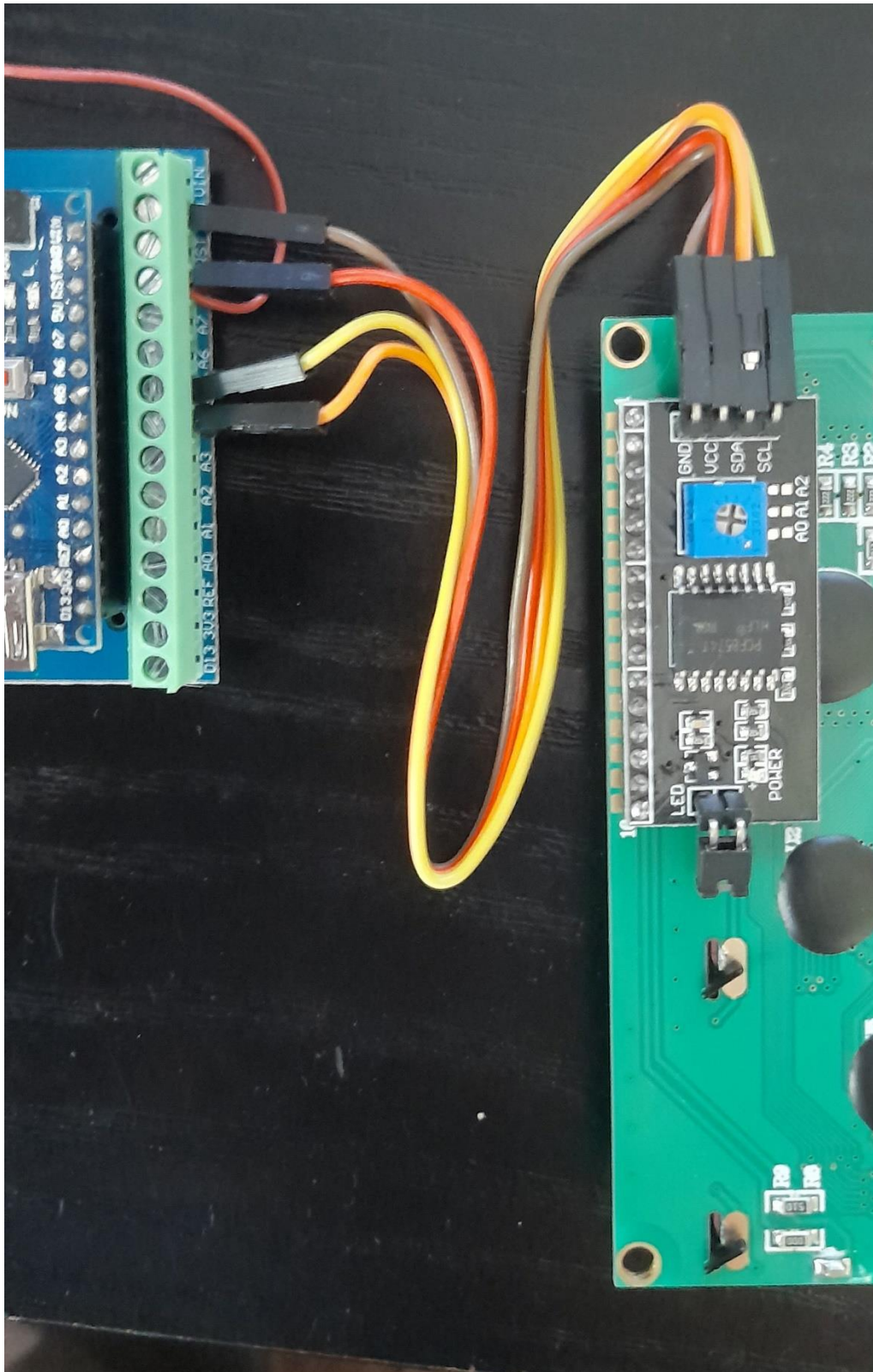
Only two buttons are used (white wires)
and a common wire (black)

Note on the breakout board, as well as the three dupont wires for the button module,
there is an additional black wire in the same screw-terminal as the black dupont wire. This is 0V for
the tx & rx sensors.

The additional white and blue wires connect to 'OUT' on each of the receiver modules.



Close-up of button wiring.



Wiring for the LCD module.

Note positions of yellow and orange wires as they look very similar in the photograph.

Also seen is an additional red wire in the same screw-terminal as the red dupont wire. This is 5V to the tx & rx sensors.