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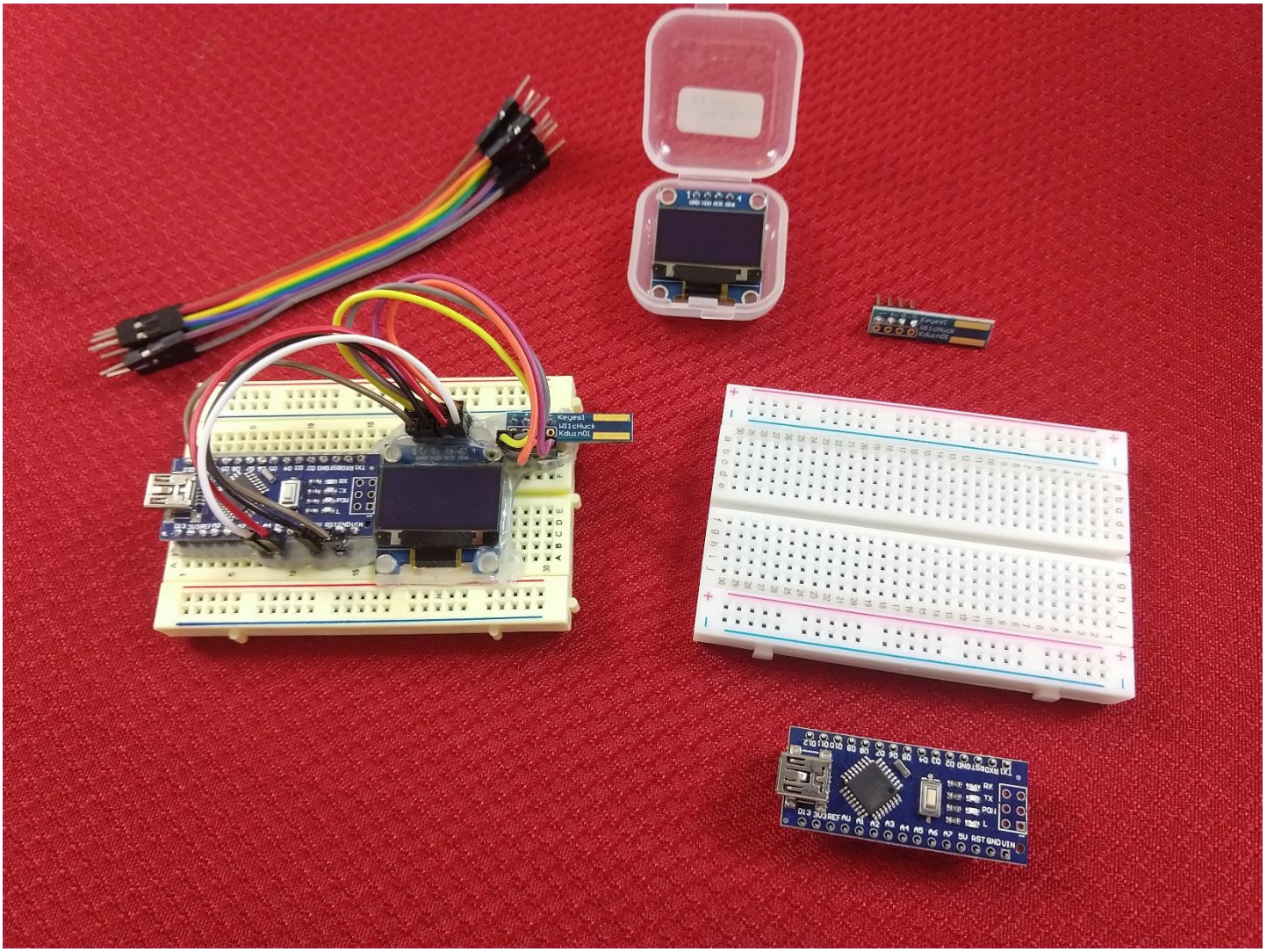
Assembling the I2CU Game Machine

The kit consists of an Arduino Nano, small breadboard, OLED screen, 8 wires and the adapter for the Wii Nunchuk



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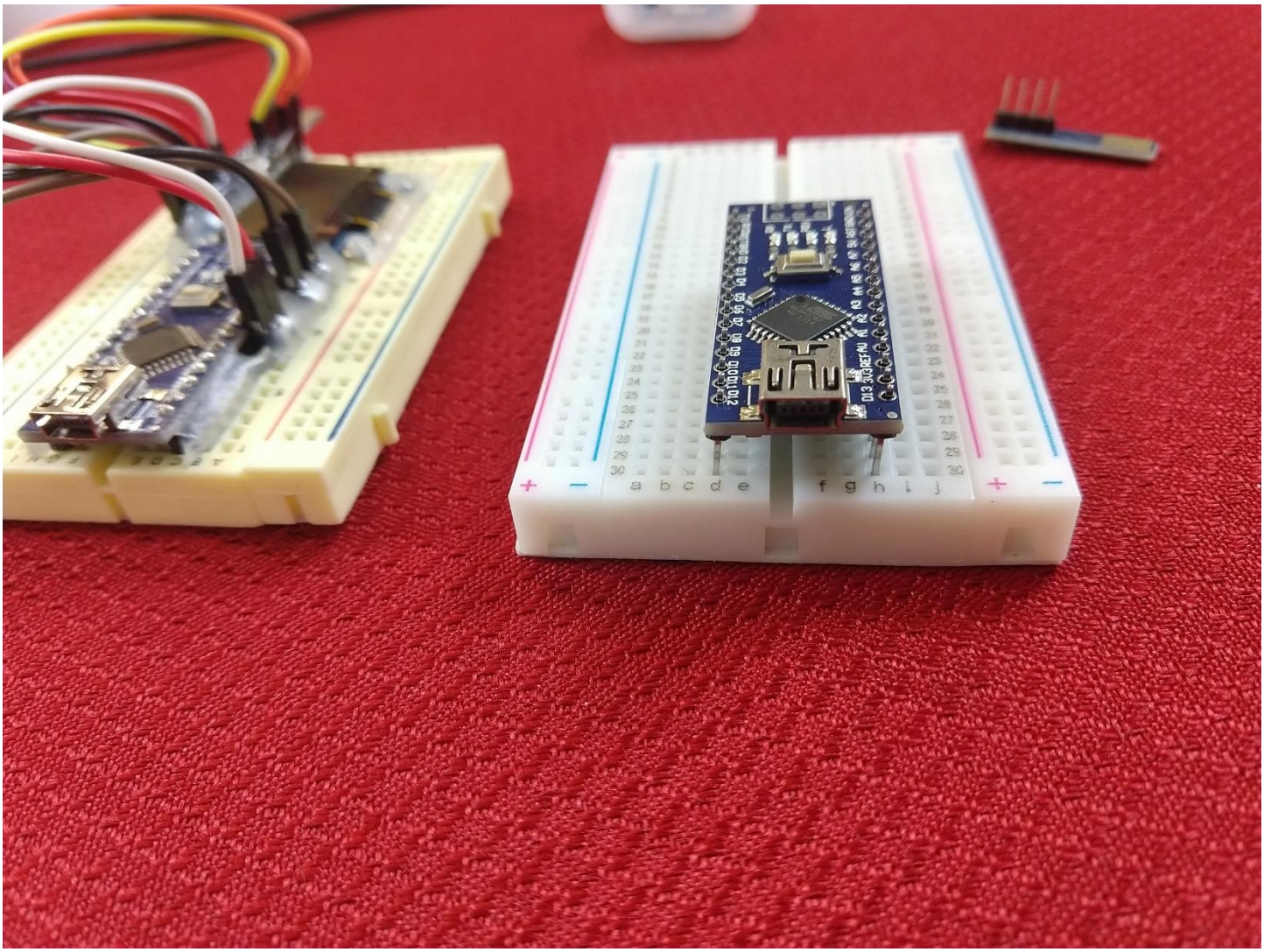
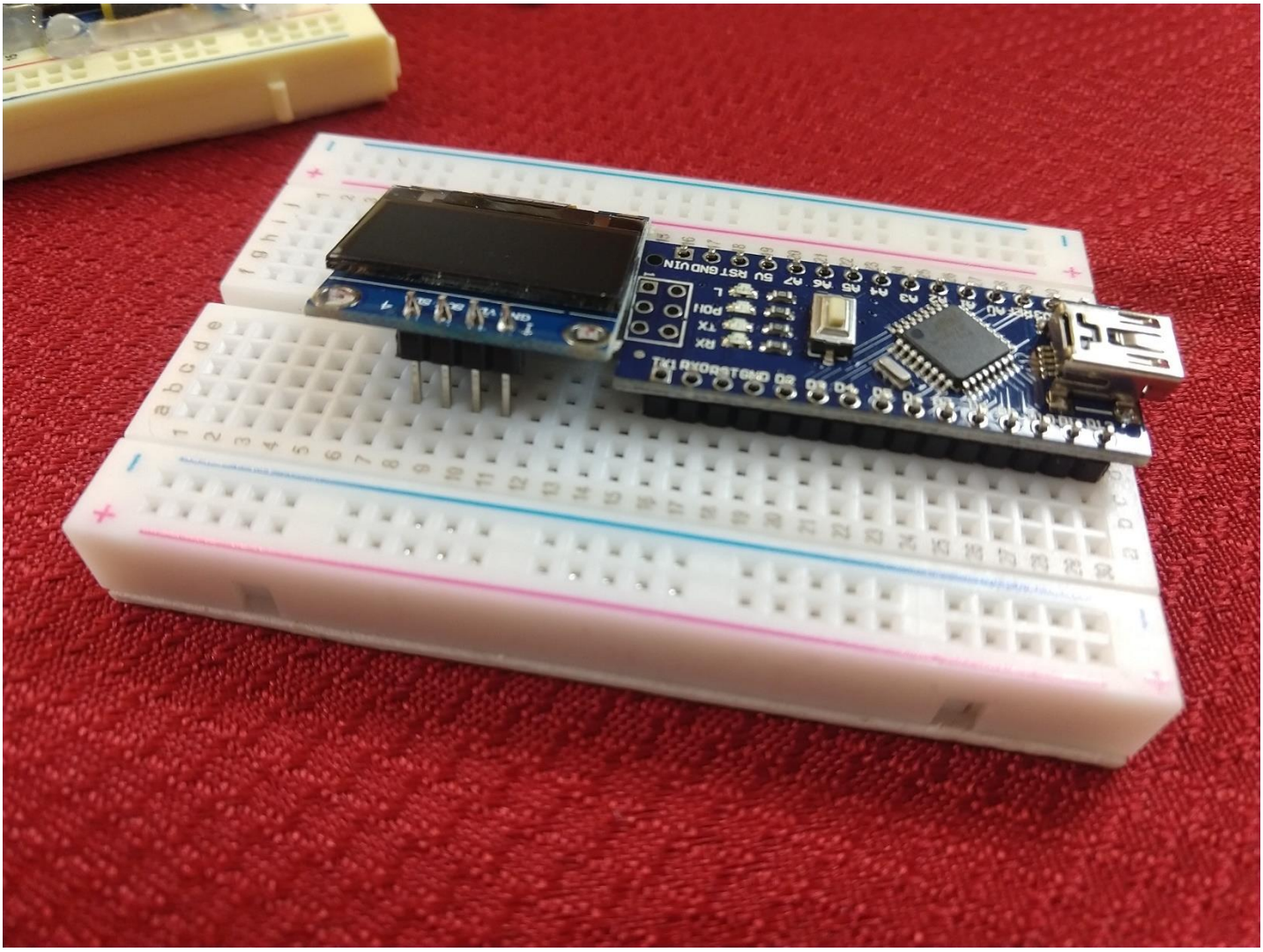
Step 1: Plug in the Nano

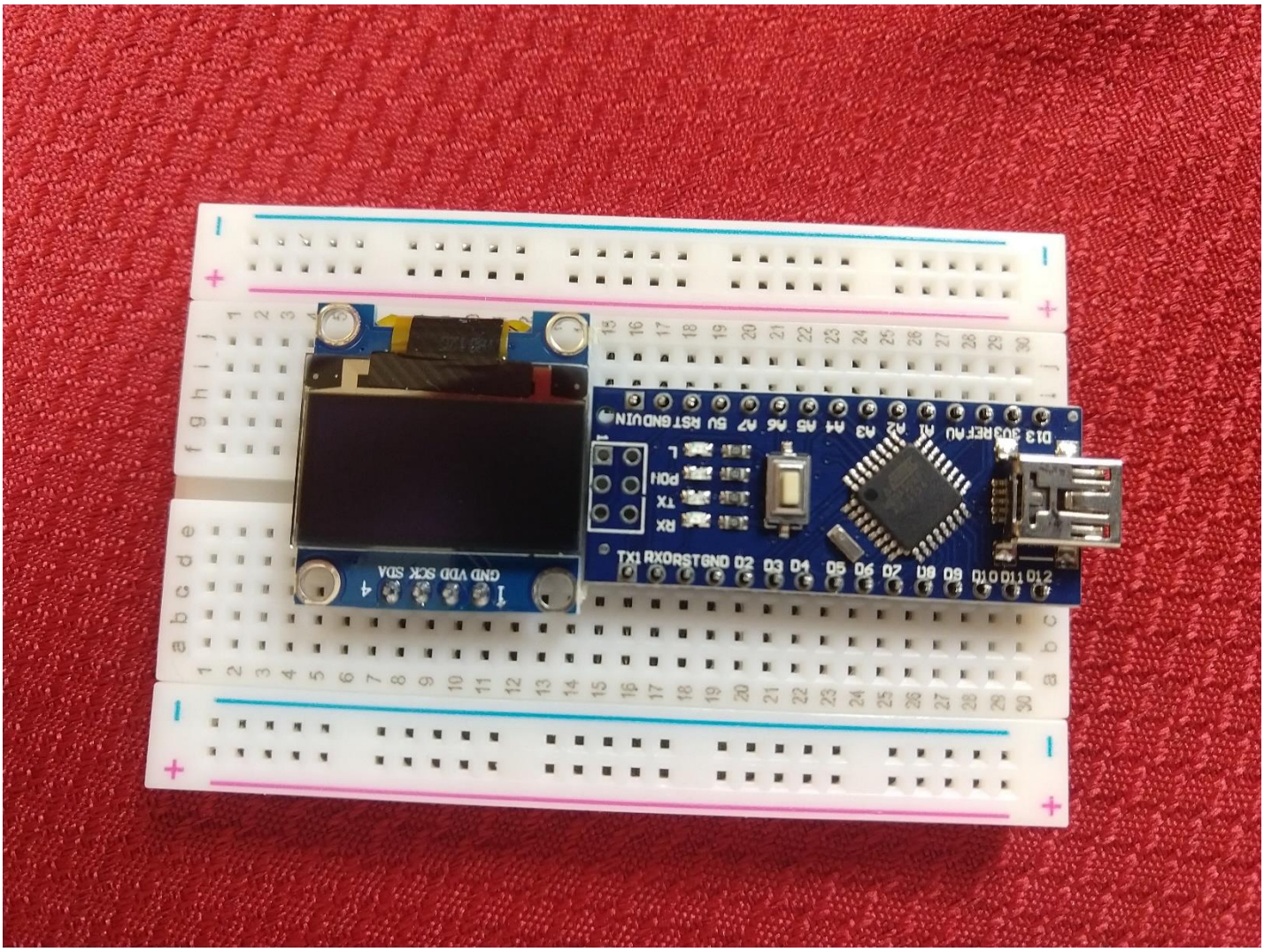


The Nano goes up to the edge of the breadboard. Note that it is not centered. It leaves one row empty on one side and two rows empty on the other.

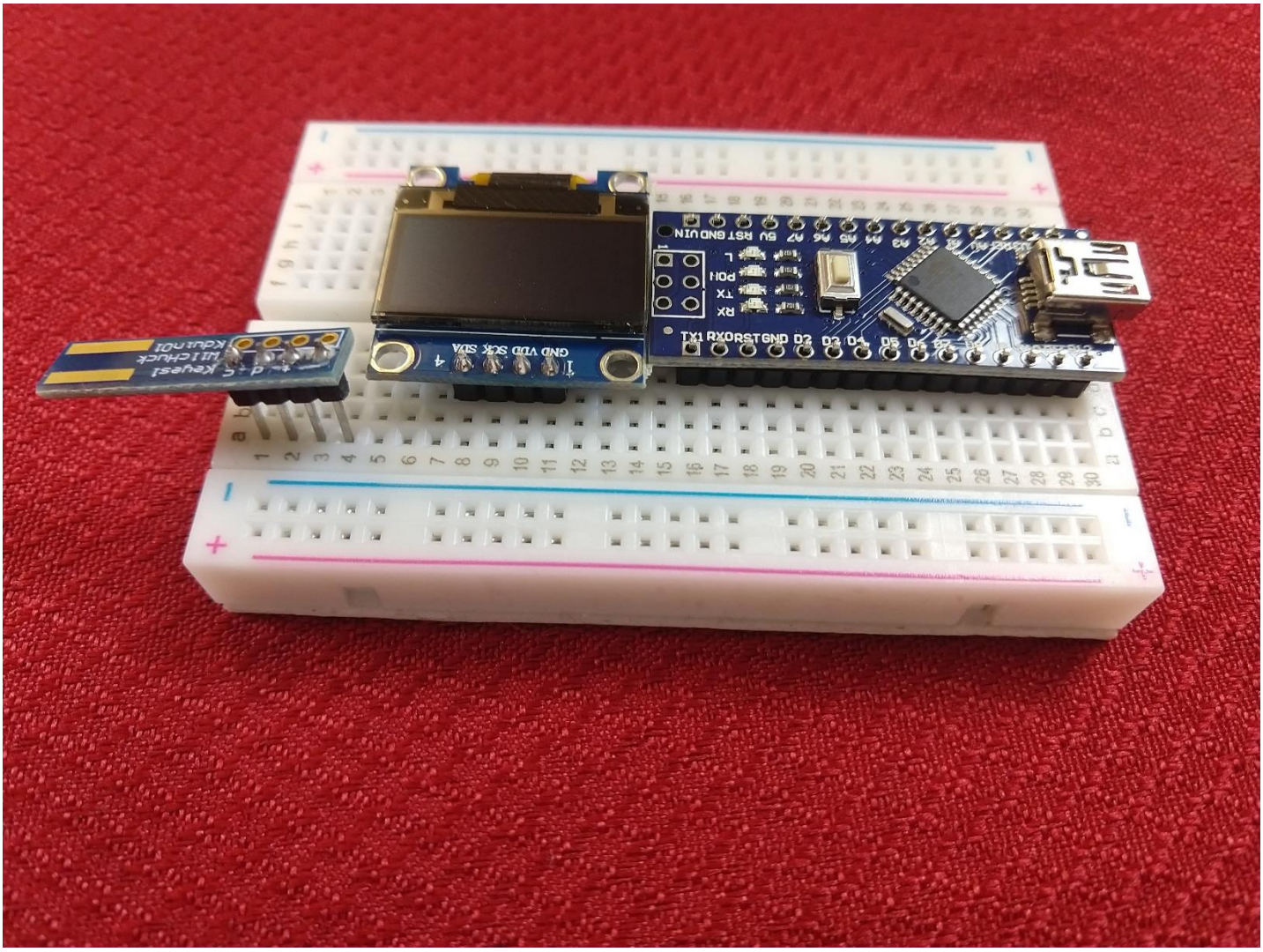
Step 2: The OLED



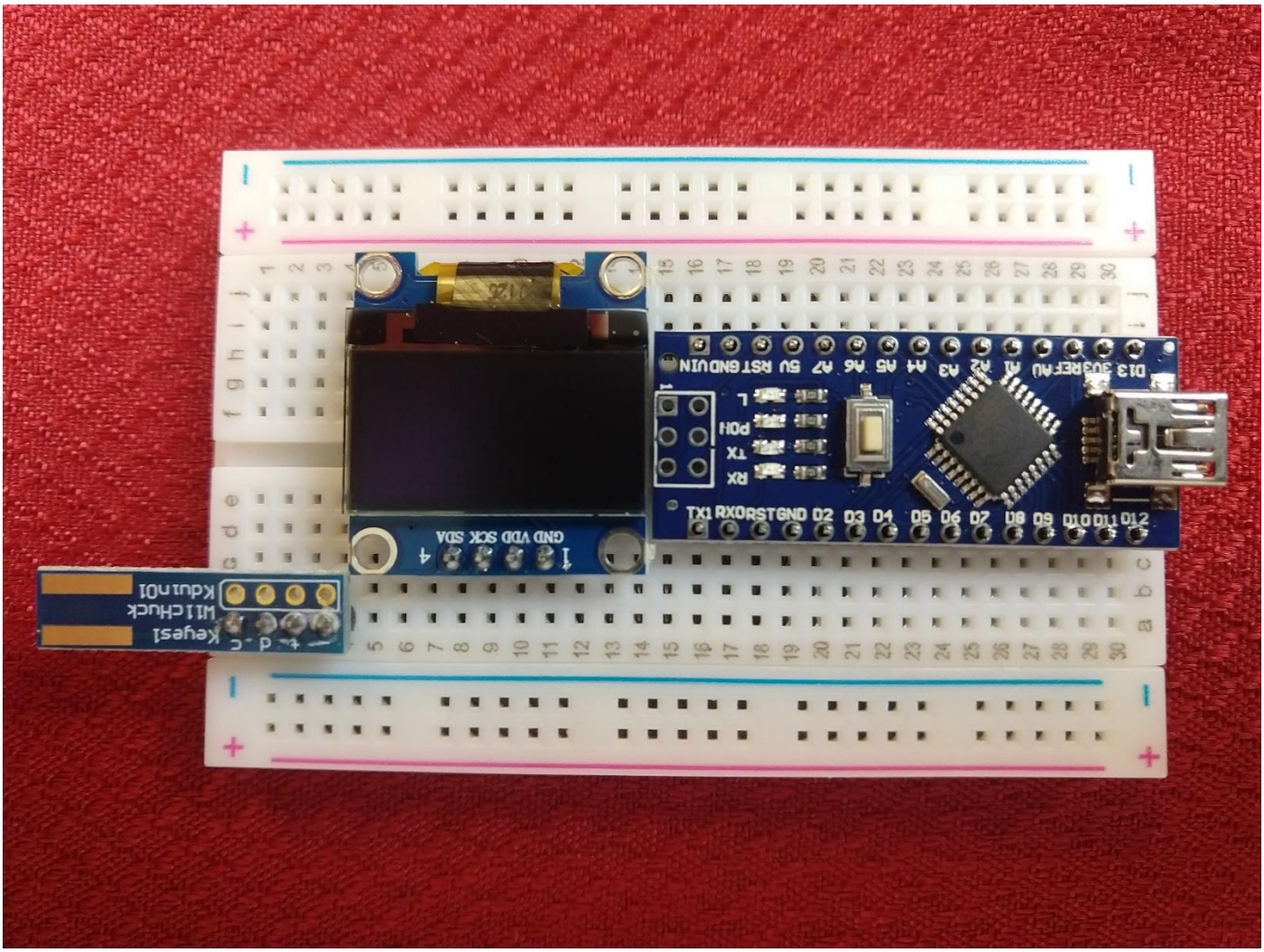
Next the OLED is plugged in next to the Nano. There is no space between the OLED and the Nano. The OLED should be plugged in so there are at least two rows empty. We will need two rows empty to plug in the wires.


GND VDD SCK SDA
TX1 RXORSTGND D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12
D13 3V3REF A0 A1 A2 A3 A4 A5 A6 A7 5V RSTGNDVIN
L
PON
TX
RX

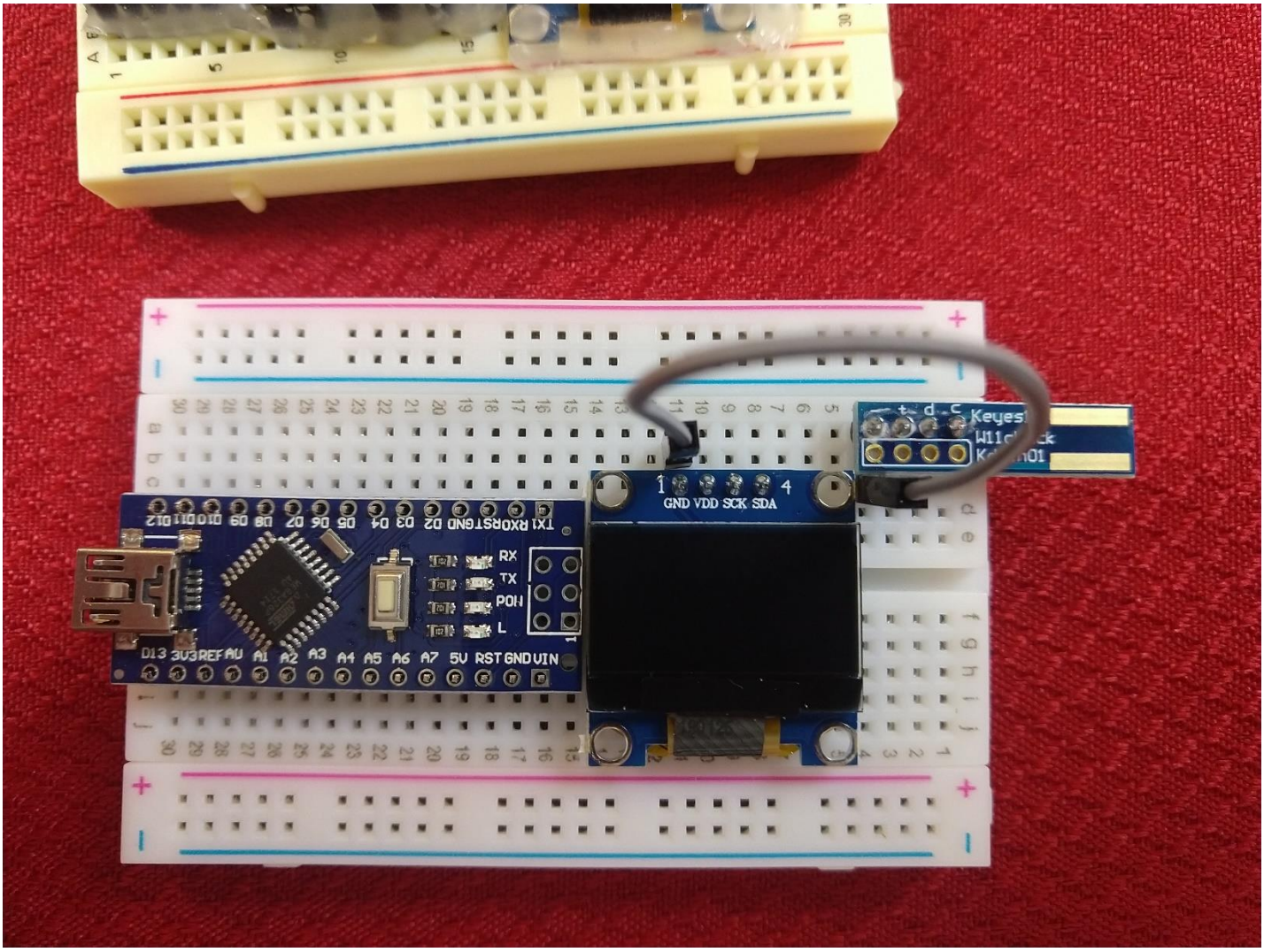
Step 3: The Wii Nunchuk Adapter



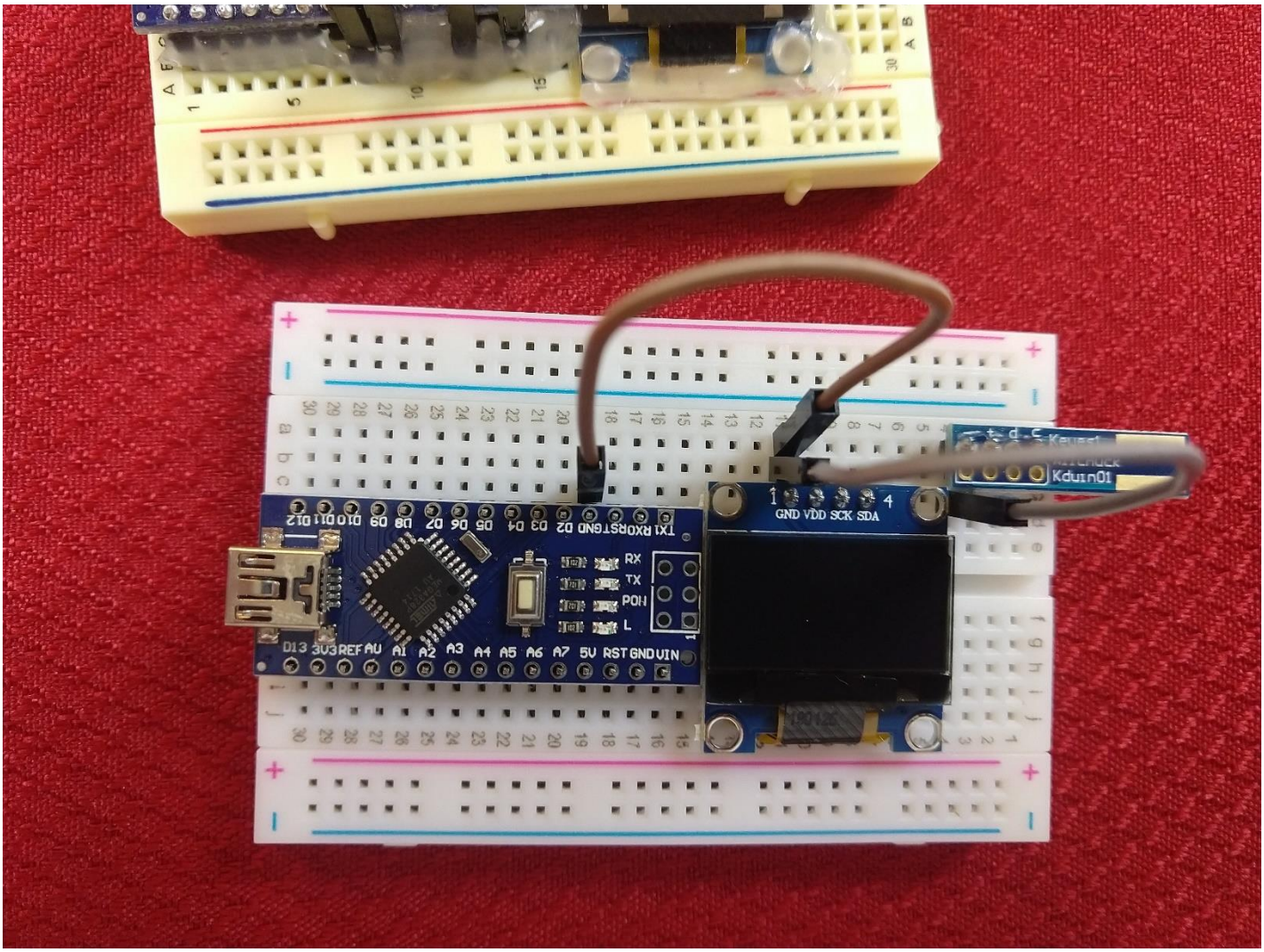
The Wii Nunchuk adapter plugs in right on the edge.


GND VDD SCK SDA
TX1 RX0 RST GND D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12
D13 3V3 REF A0 A1 A2 A3 A4 A5 A6 A7 5V RST GND VIN
L
PO1
TX
RX

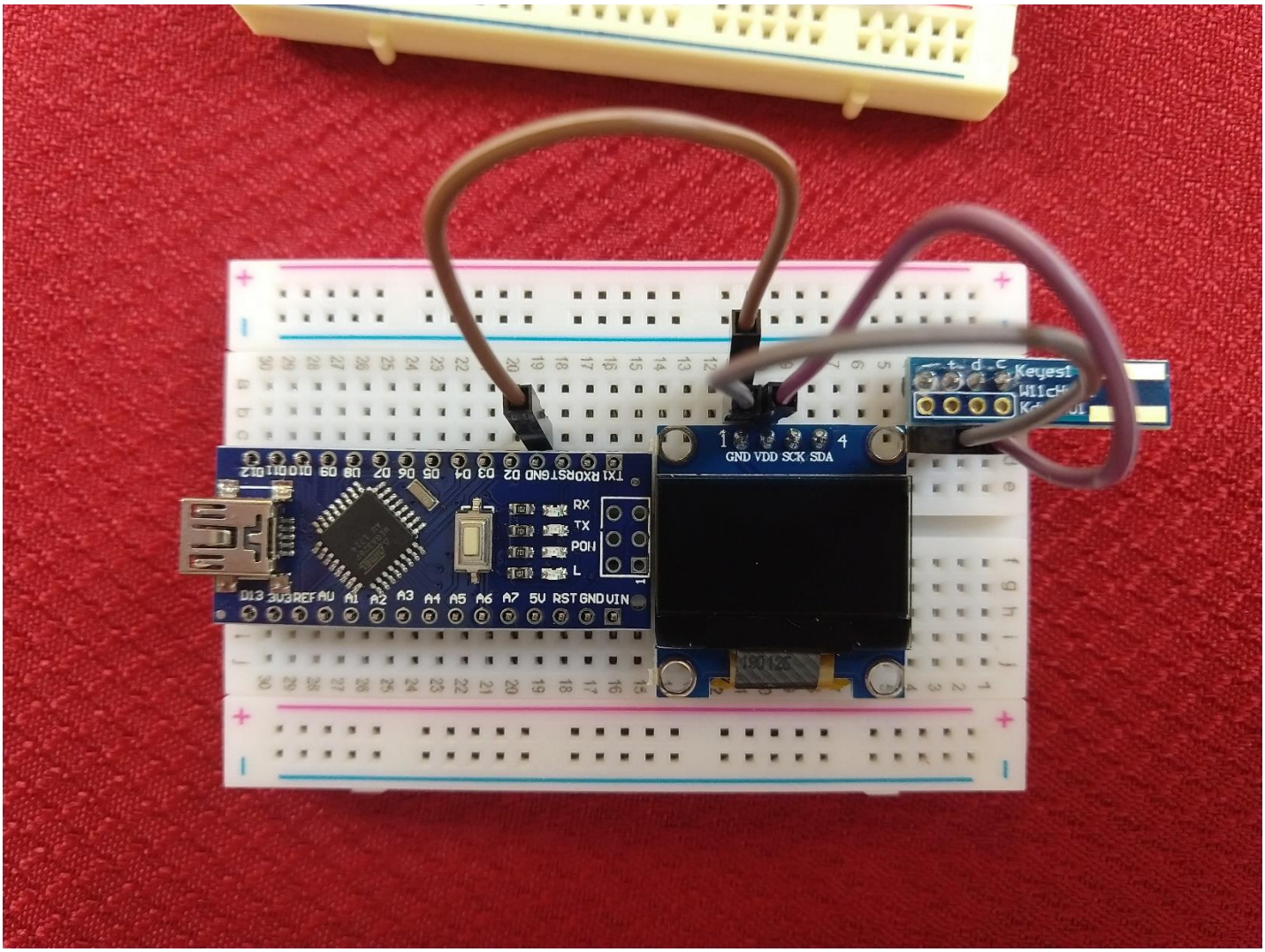
Step 4: Wiring it Up



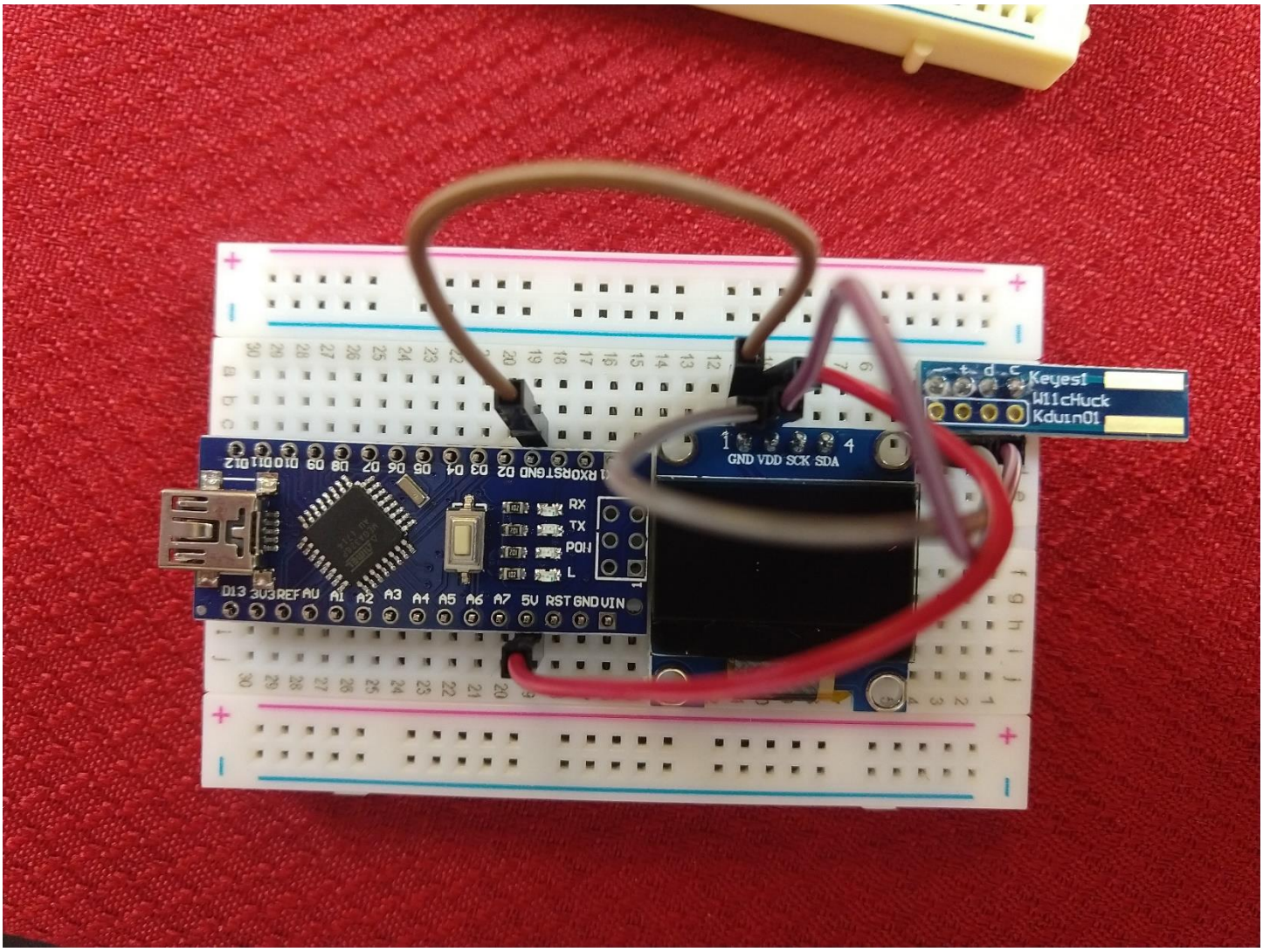
The Wii Nunchuk and OLED are wired together in parallel to the Arduino. We will start with the ground pin. On the Wii Nunchuck adapter, it is labeled with a negative sign. The ground pin is labeled GND on the OLED. We will run a wire from the left most pin of the adapter to the left most pin of the OLED



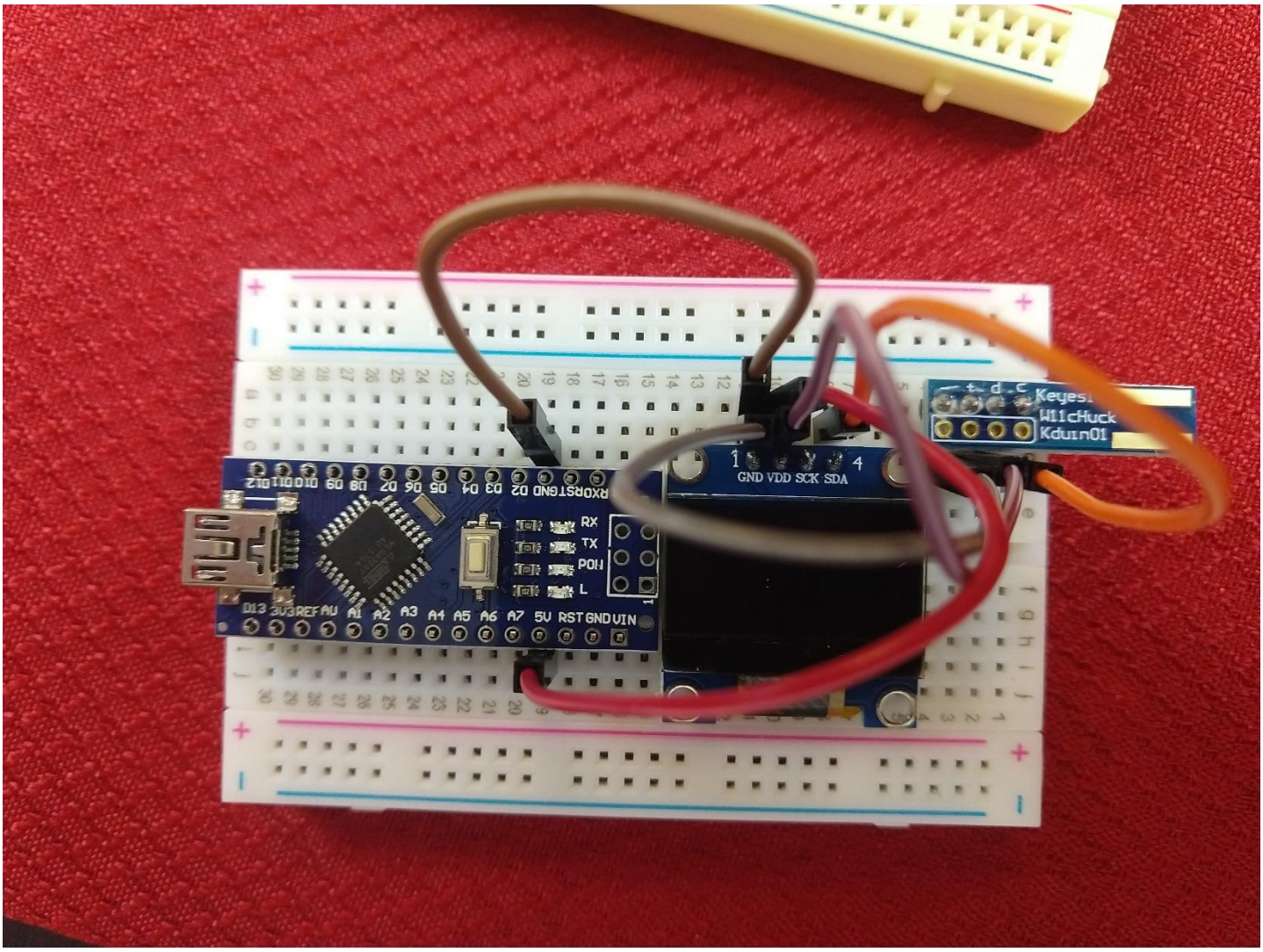
We then run a wire from the GND pin on the OLED to the top GND pin on the Arduino.



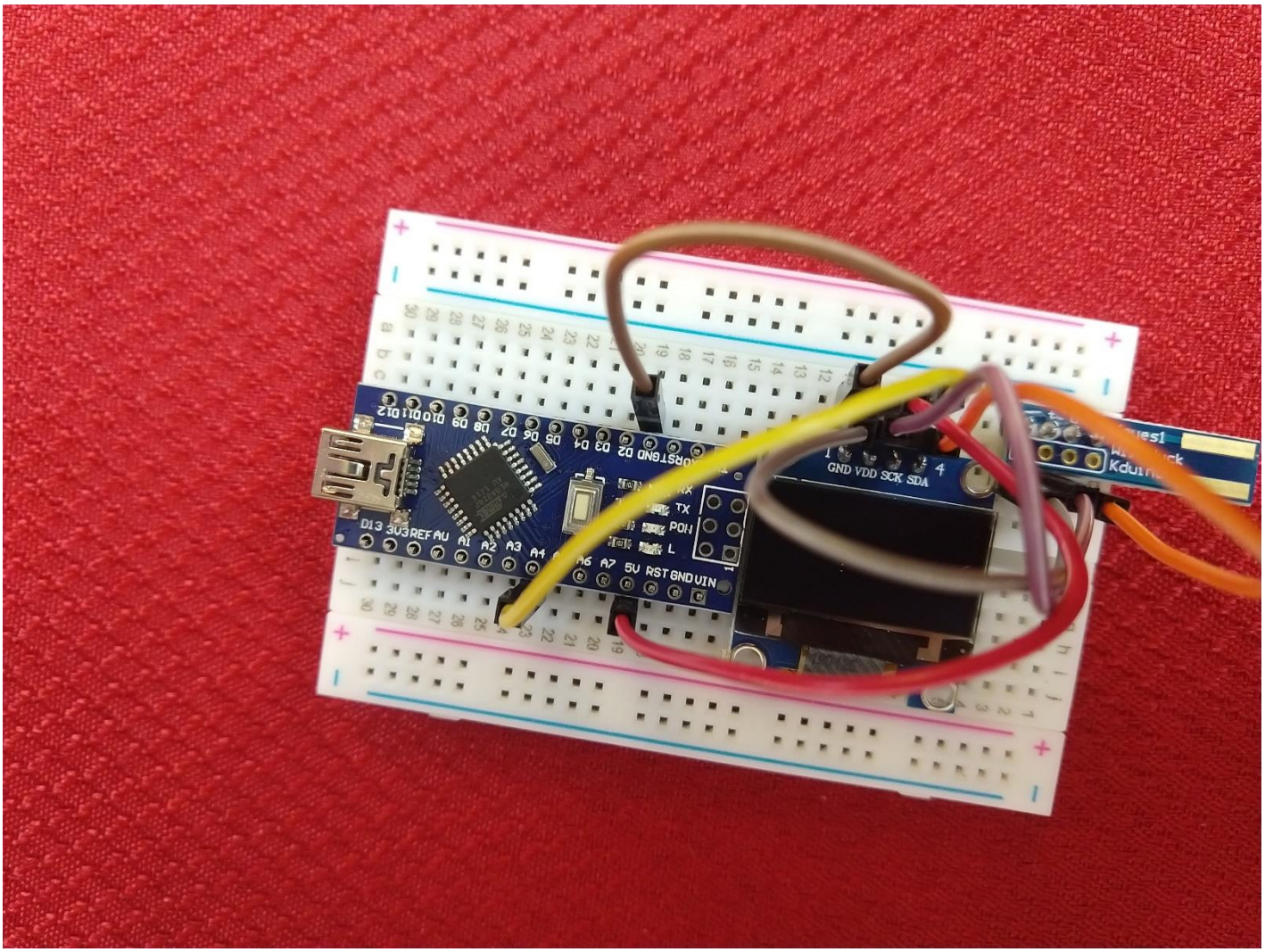
Next we run a wire from the plus sign on the Wii Nunchuk adapter to the VDD pin on the OLED. There are several ways parts will indicate a positive voltage pin.



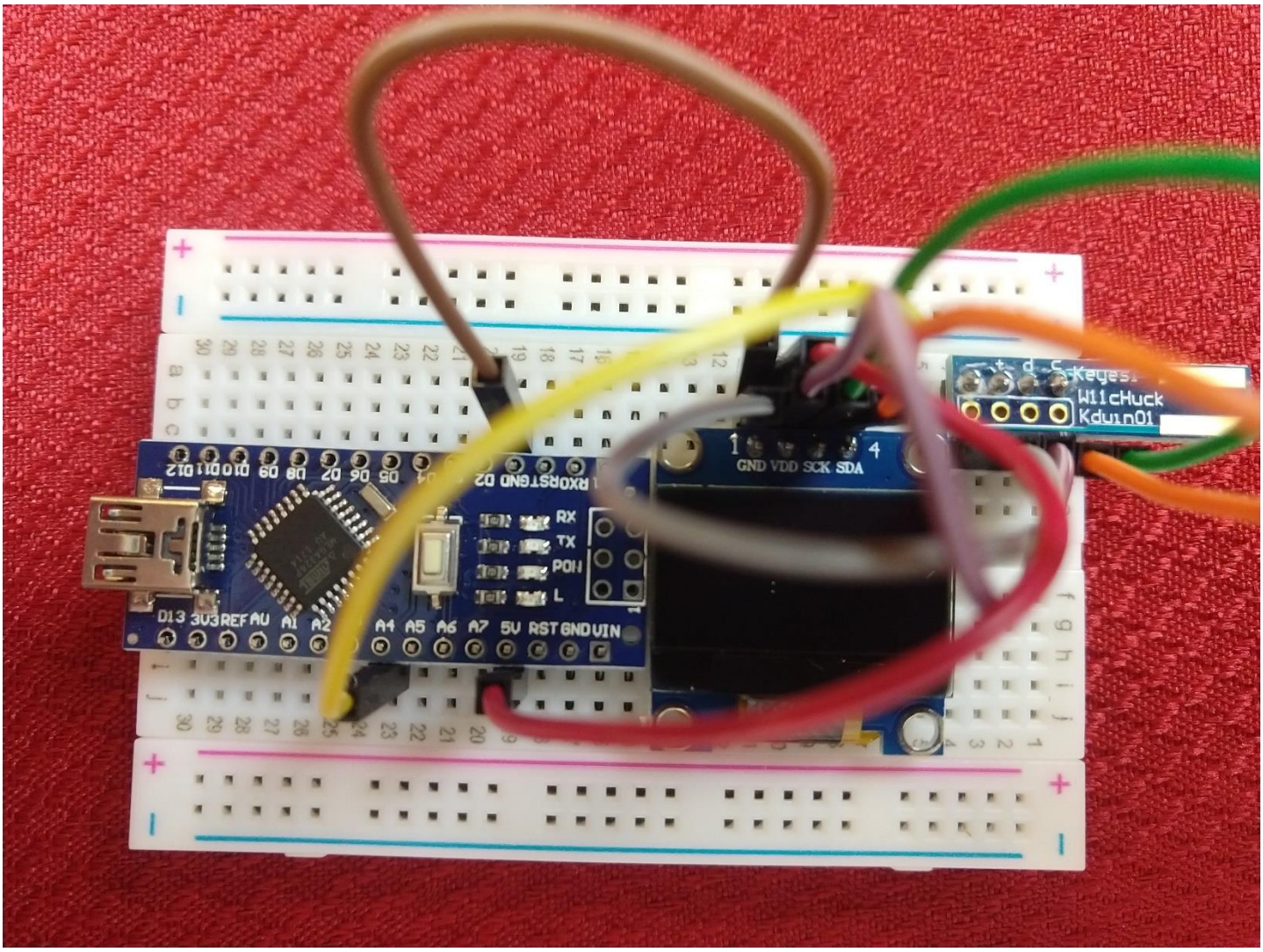
Next, we will run a wire from the VDD pin on the OLED to the 5V pin on the Arduino. We will be running both devices at 5 volts.



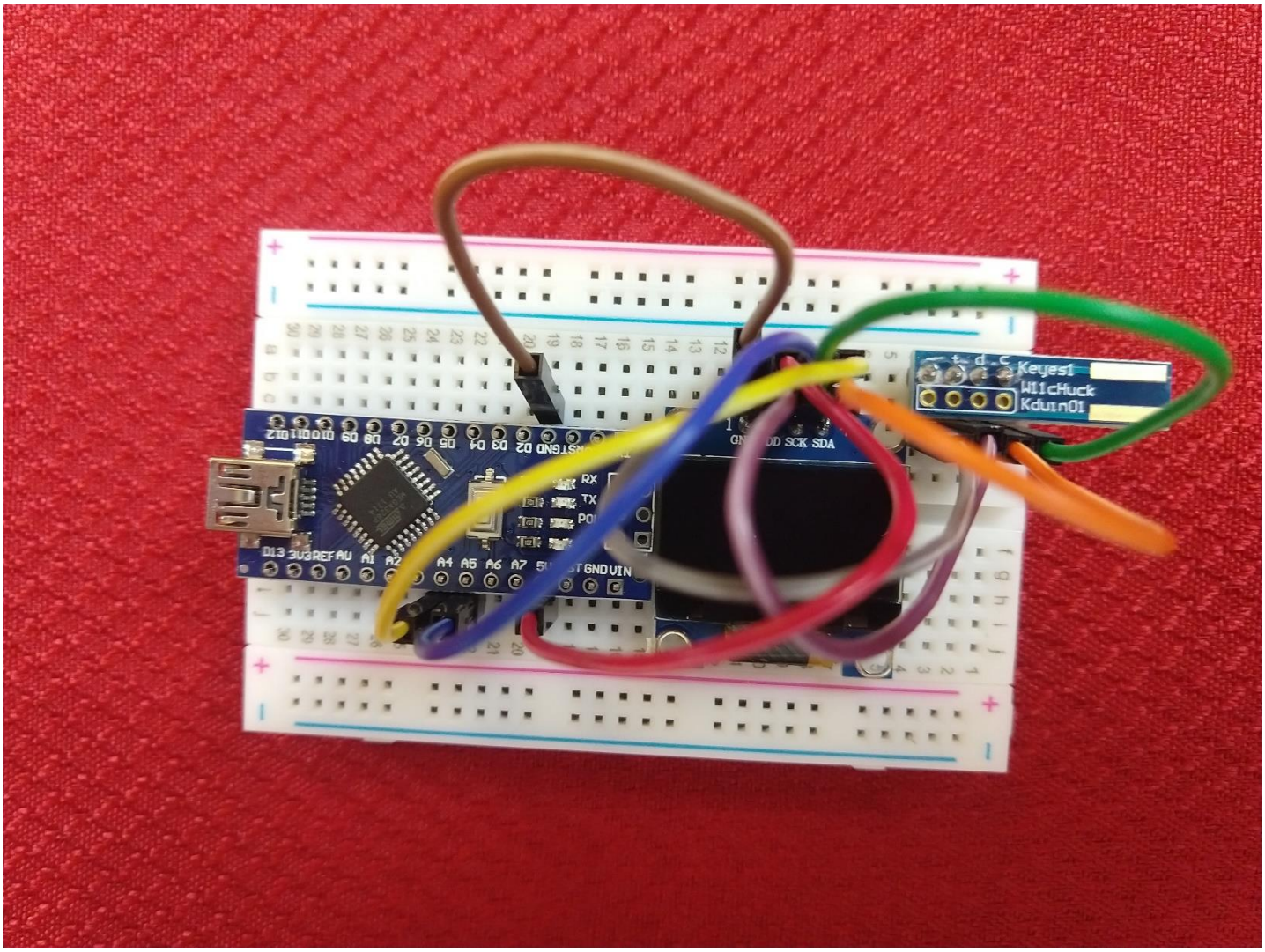
Next, we run a wire from the “C” pin on the Wii Nunchuk adapter to the SCK pin on the OLED. This is the clock signal for both.



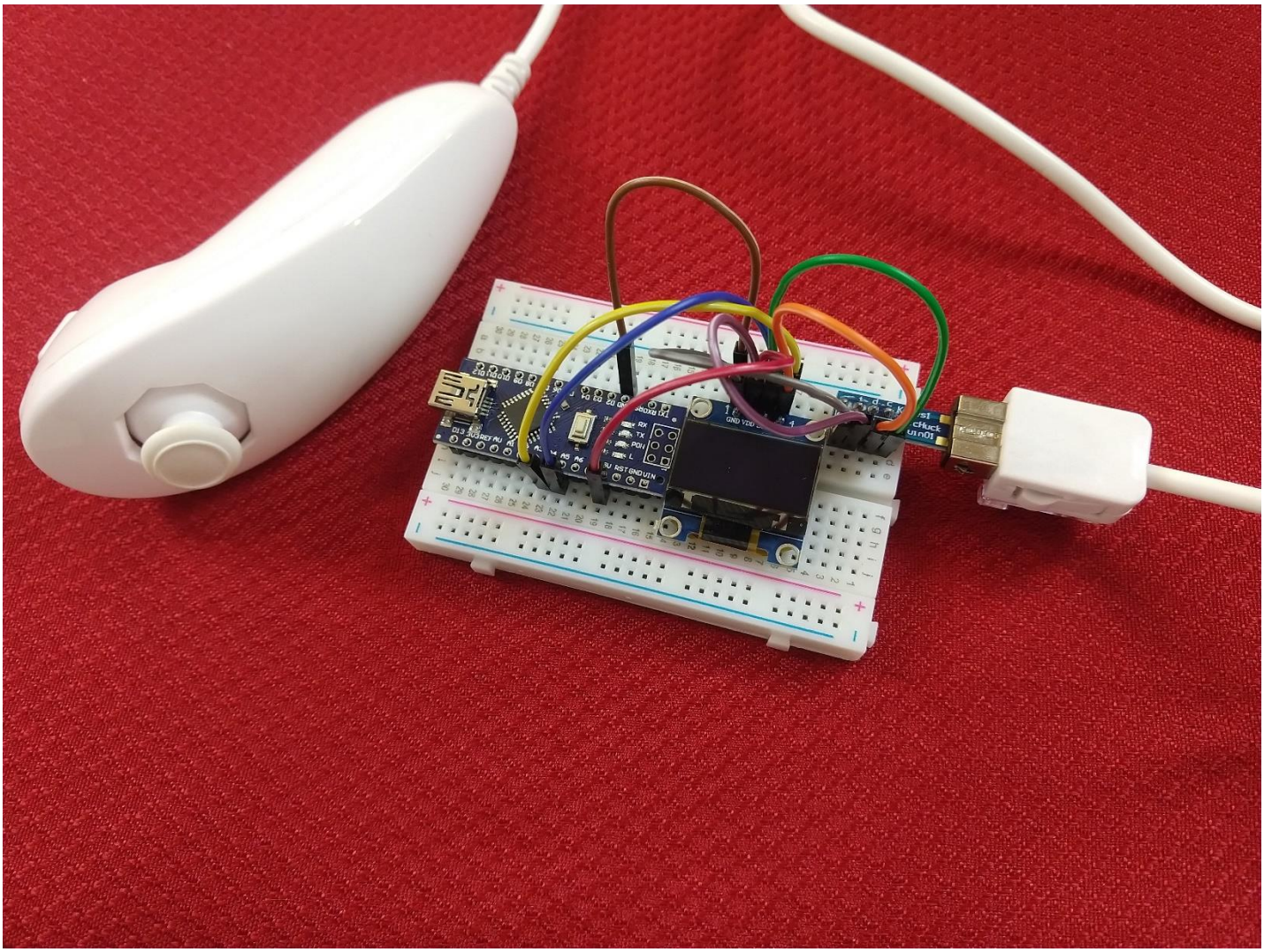
Then we run a wire from the SCK pin on the OLED to pin A5 on the Arduino. On pinout diagrams of the Arduino, the SCK pin is often labeled SCL. It stands for “Serial Clock”



Now we run a wire from the “D” pin on the Wii Nunchuk adapter to the SDA pin on the OLED.



Finally, we run a wire from the SDA pin on the OLED to the A4 pin on the Arduino. SDA stands for “Serial Data”



Now we can plug in the Wii Nunchuk and we're ready to plug in the Arduino to the PC with a USB cable.

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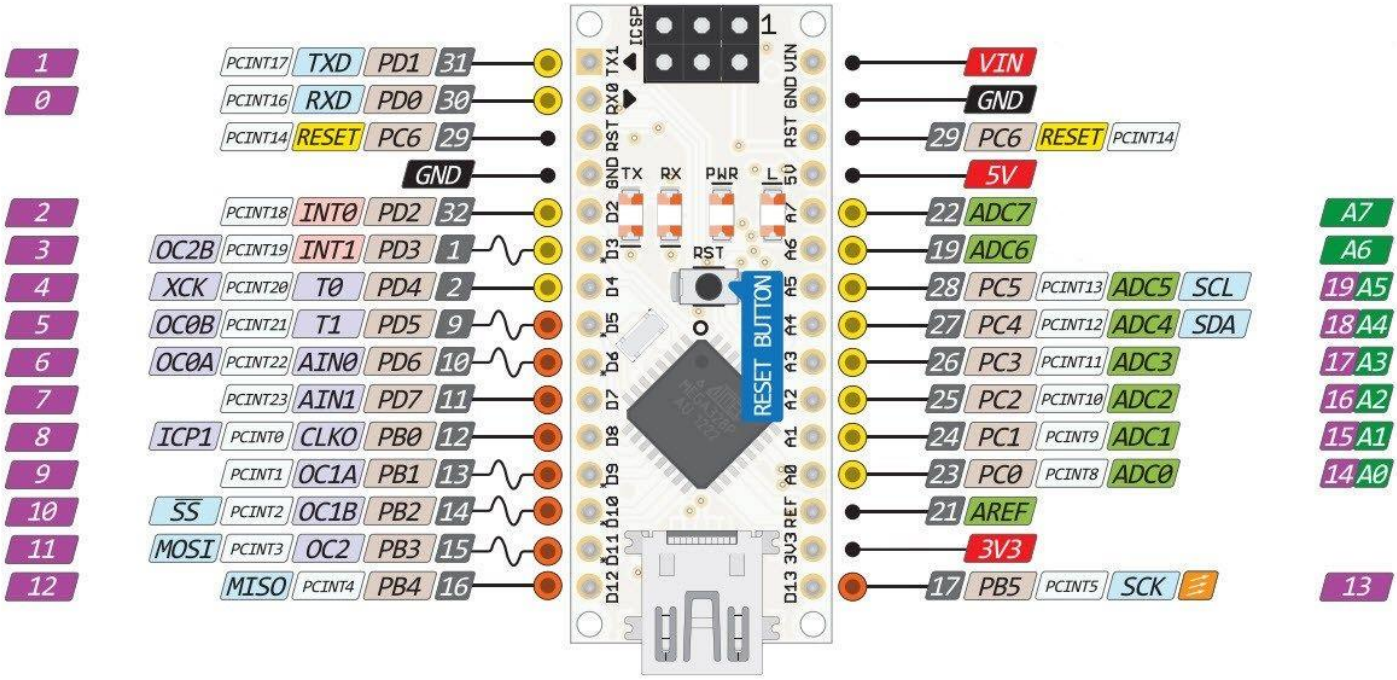
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