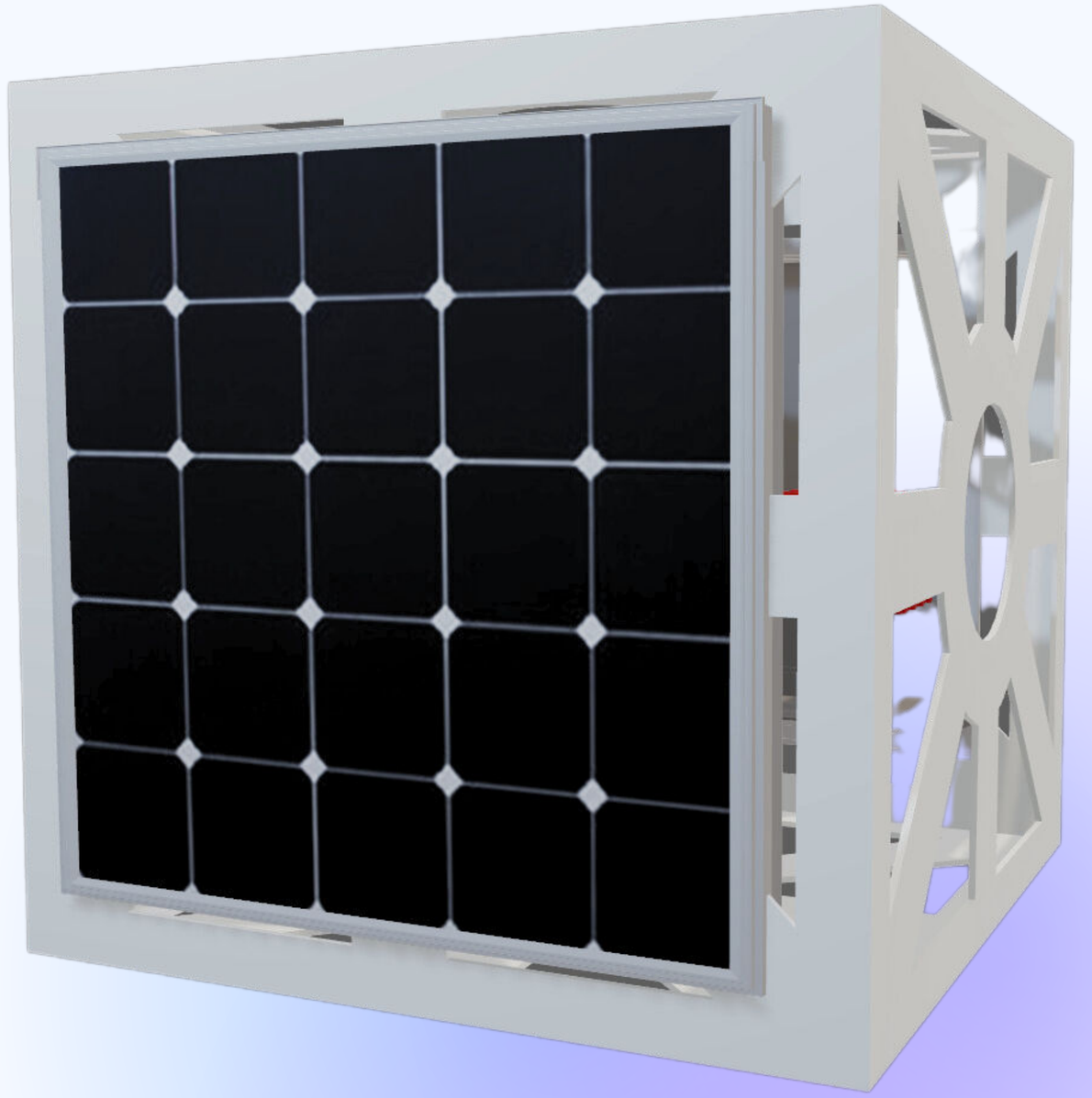
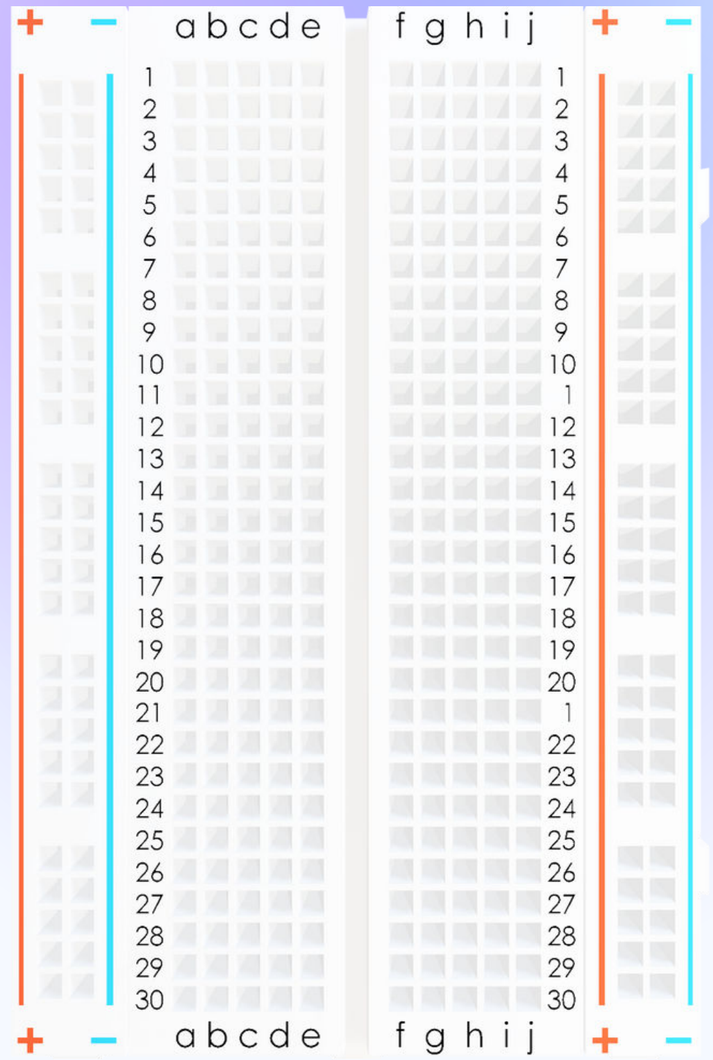
CubeSat Circuit Assembly

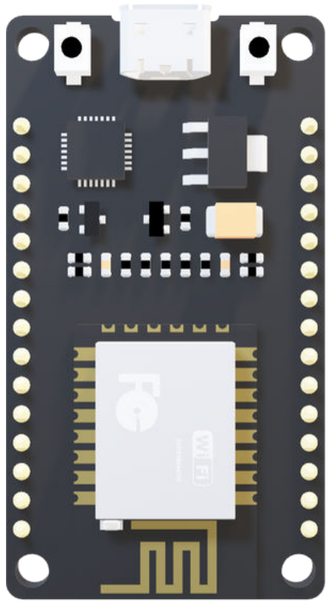




Breadboard

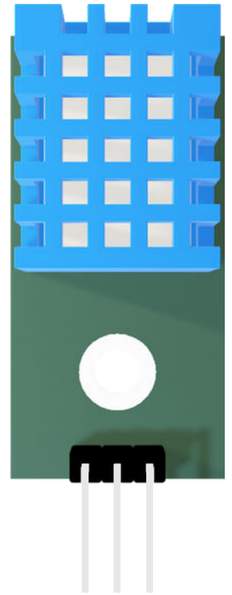
ESP32

ESP32 is the microcontroller that acts as the brain of the circuit



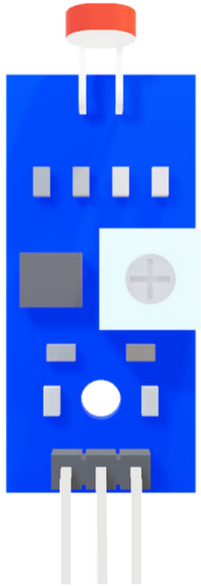
DHT 11

DHT 11 is a temperature and humidity sensor



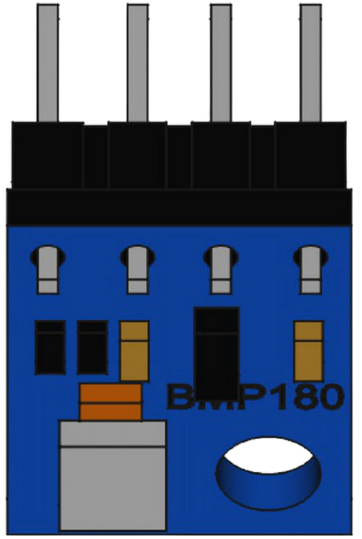
LDR Module

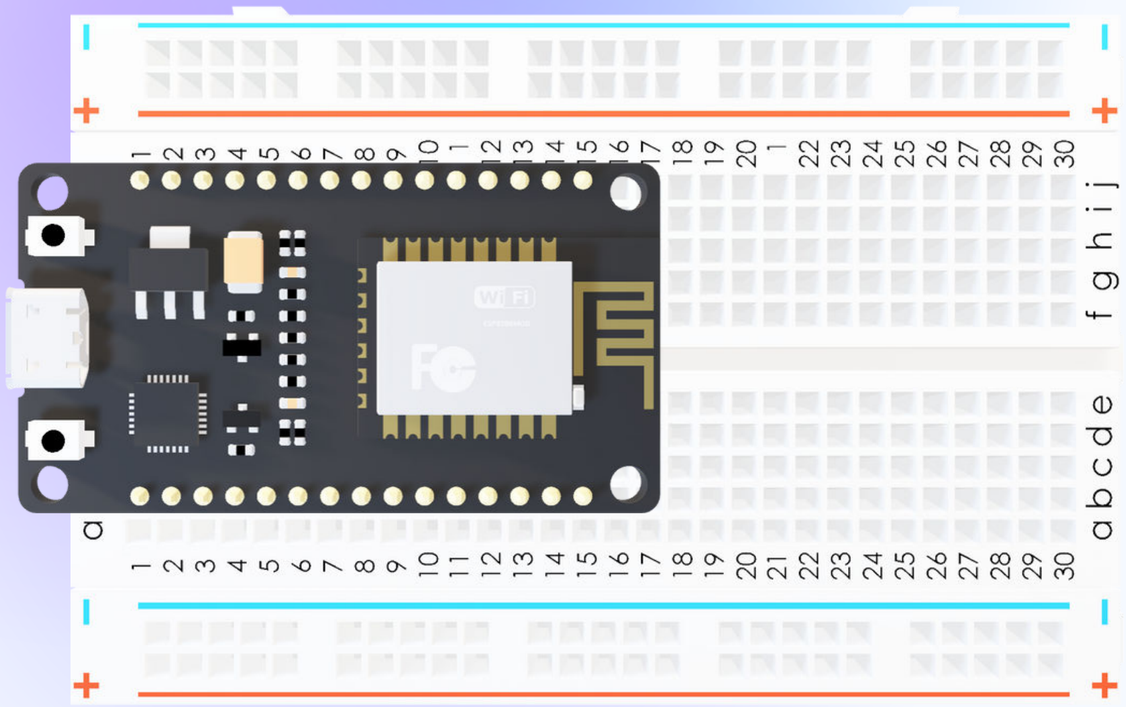
LDR Sensor Module measures light intensity



BMP 180

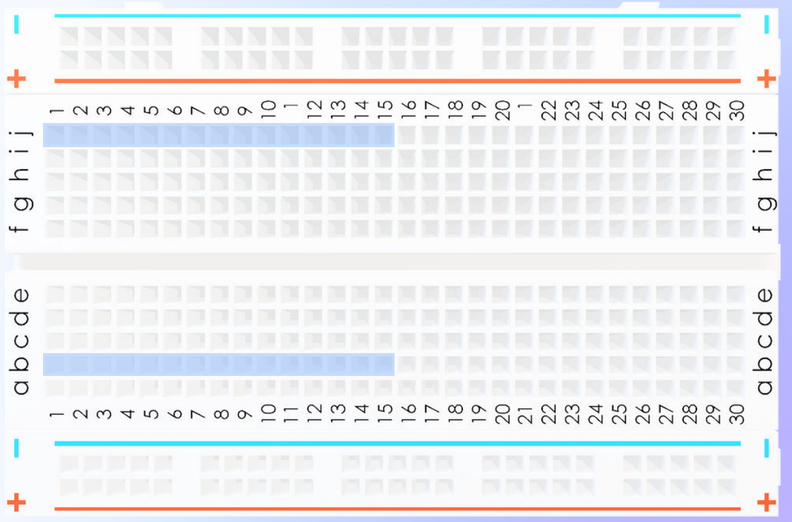
BMP 180 is an atmospheric pressure sensor

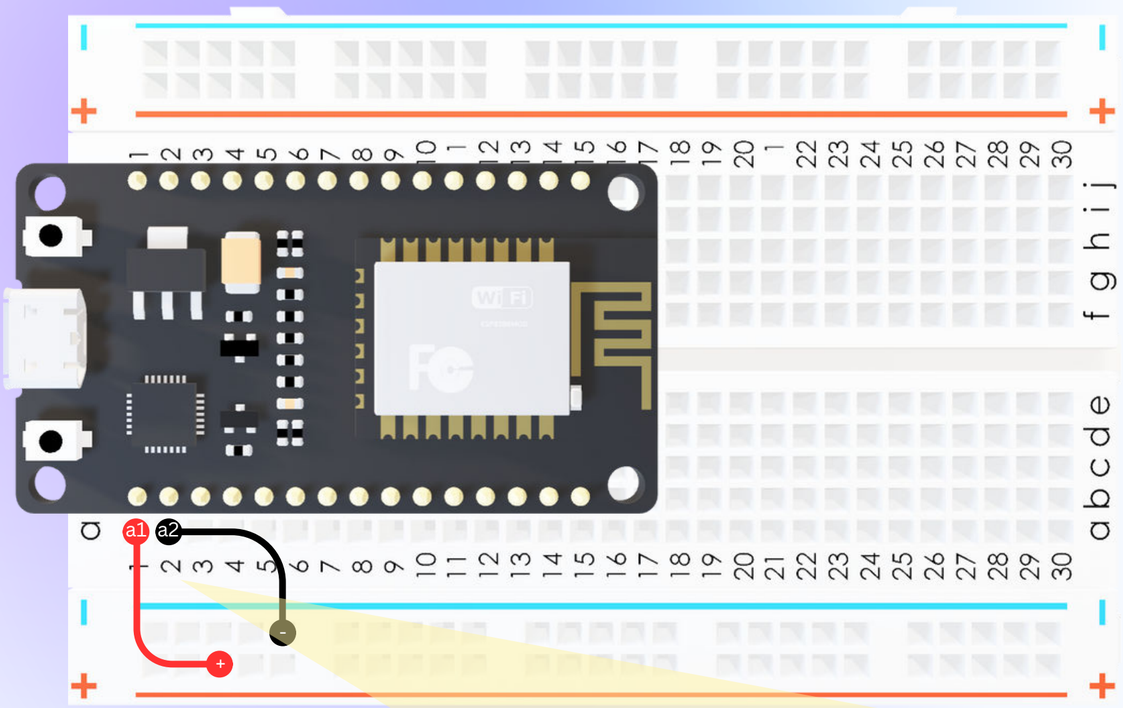




Place the ESP32 on the Breadboard

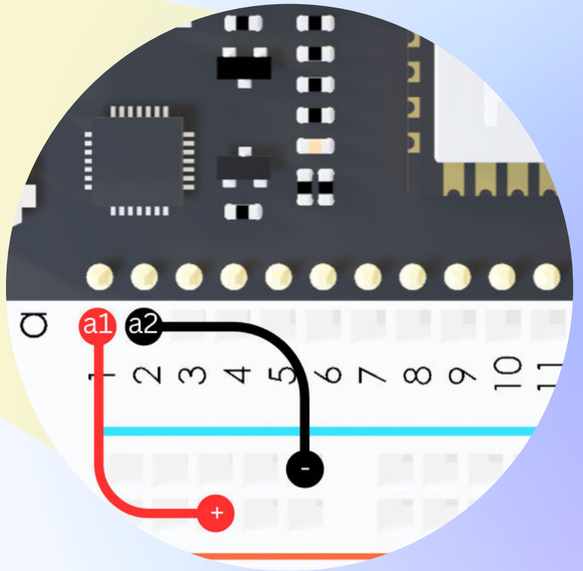
Ensure that the left pins are placed on points b1 to b15 and the right pins are placed on points j1 to j15. The USB port should face the outer direction of the breadboard.





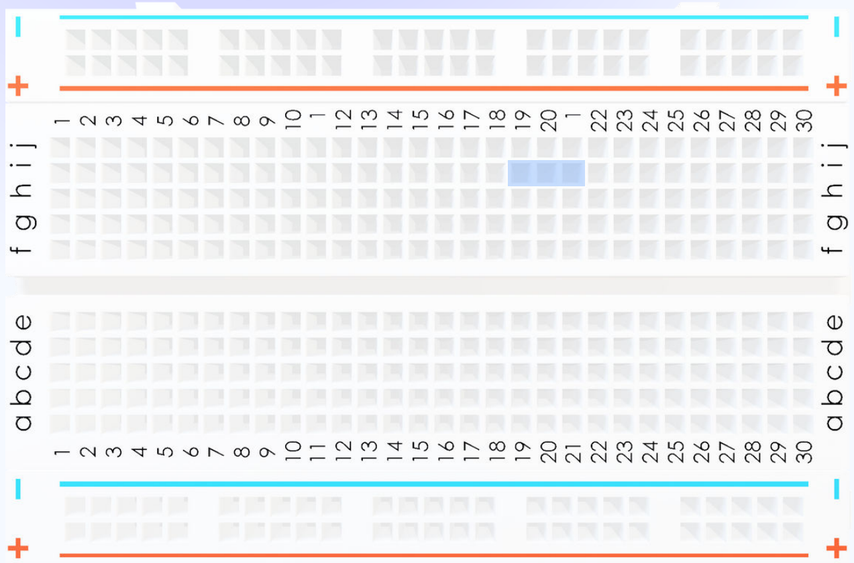
Connect the power ports

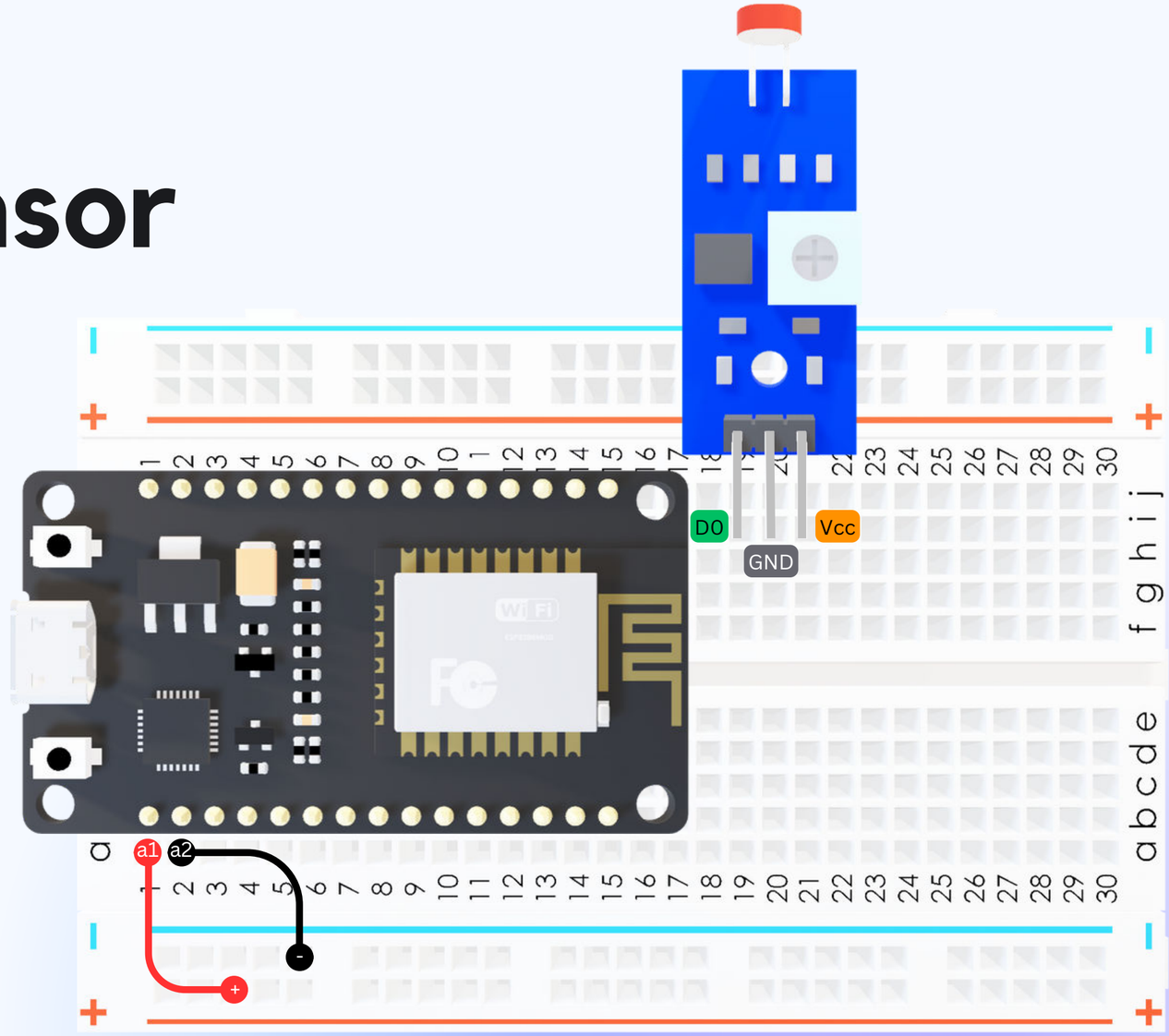
Connect point a1 with a point in the positive bus line using a jumper wire. Likewise, connect point a2 with a point in the negative bus line.



Place the LDR Sensor

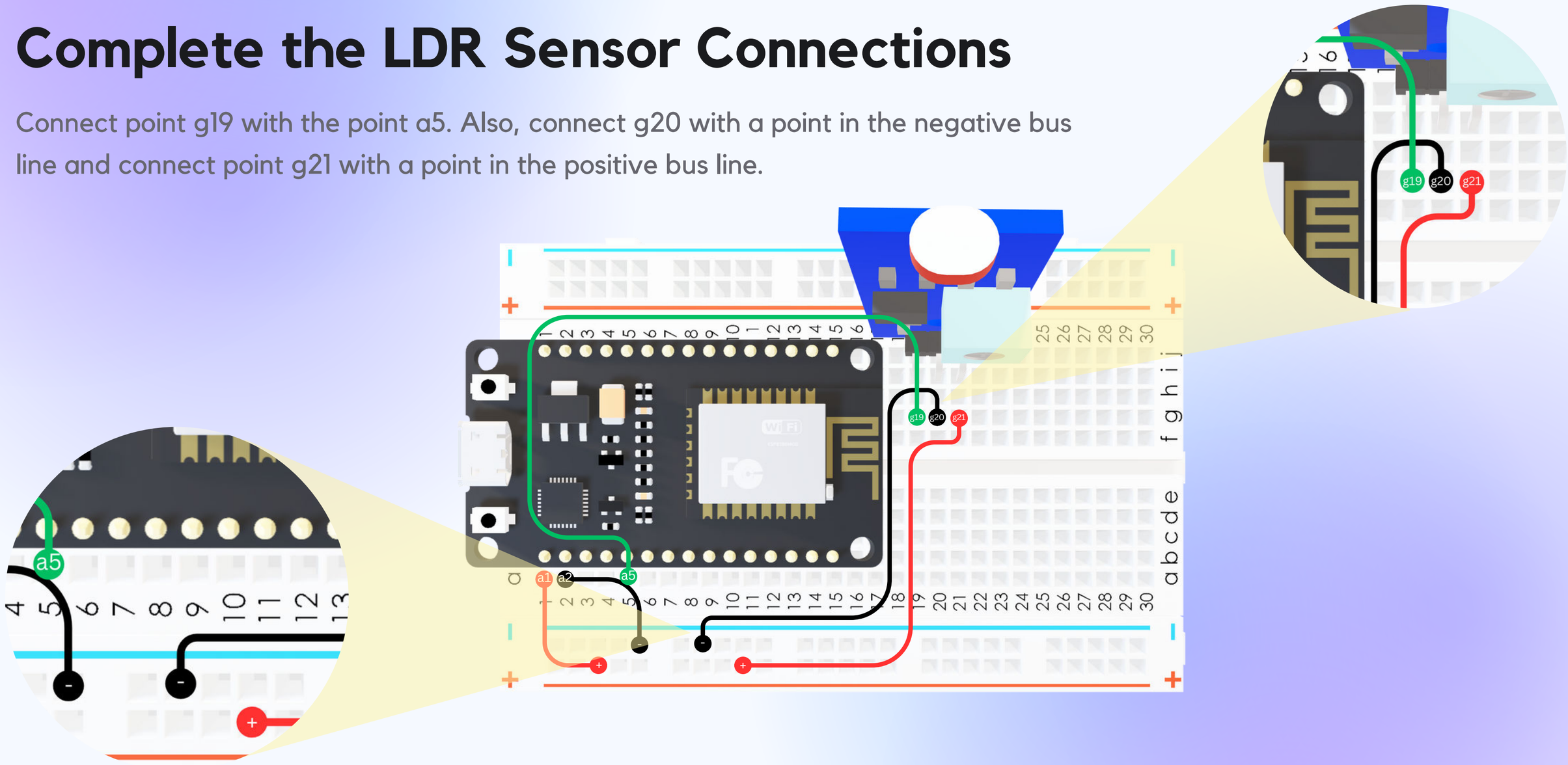
Place the LDR sensor on the breadboard ensuring that the D0 Pin is placed on the point i19, GND pin is placed on the point i20 and Vcc is placed on the point i21

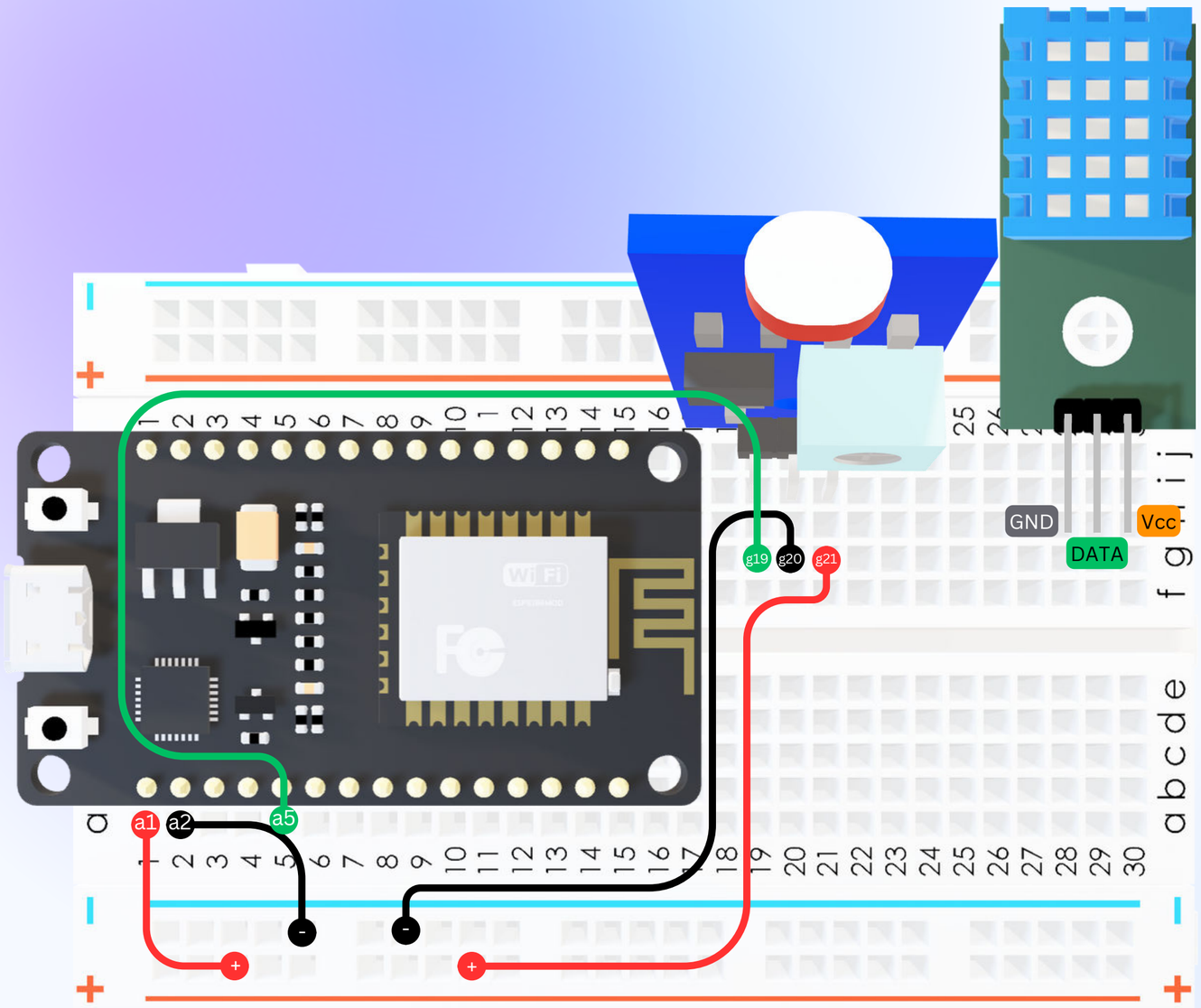




Complete the LDR Sensor Connections

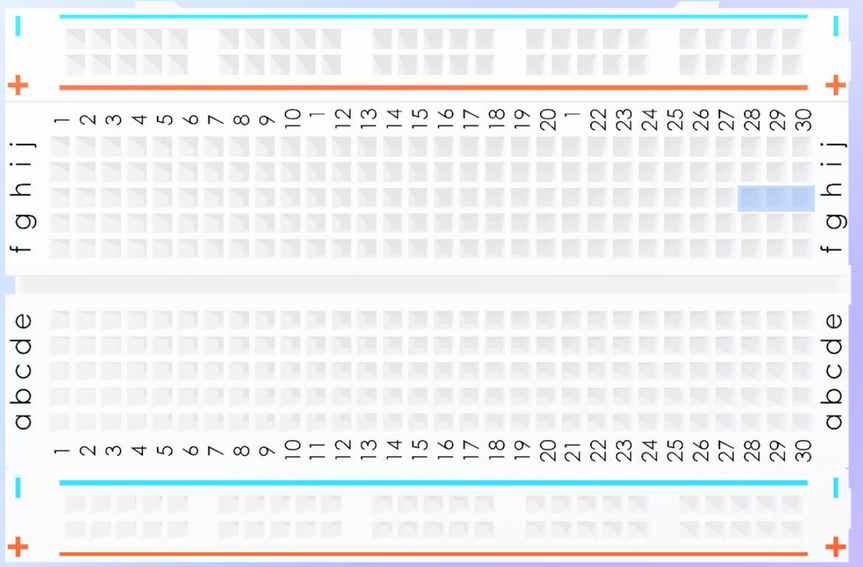
Connect point g19 with the point a5. Also, connect g20 with a point in the negative bus line and connect point g21 with a point in the positive bus line.





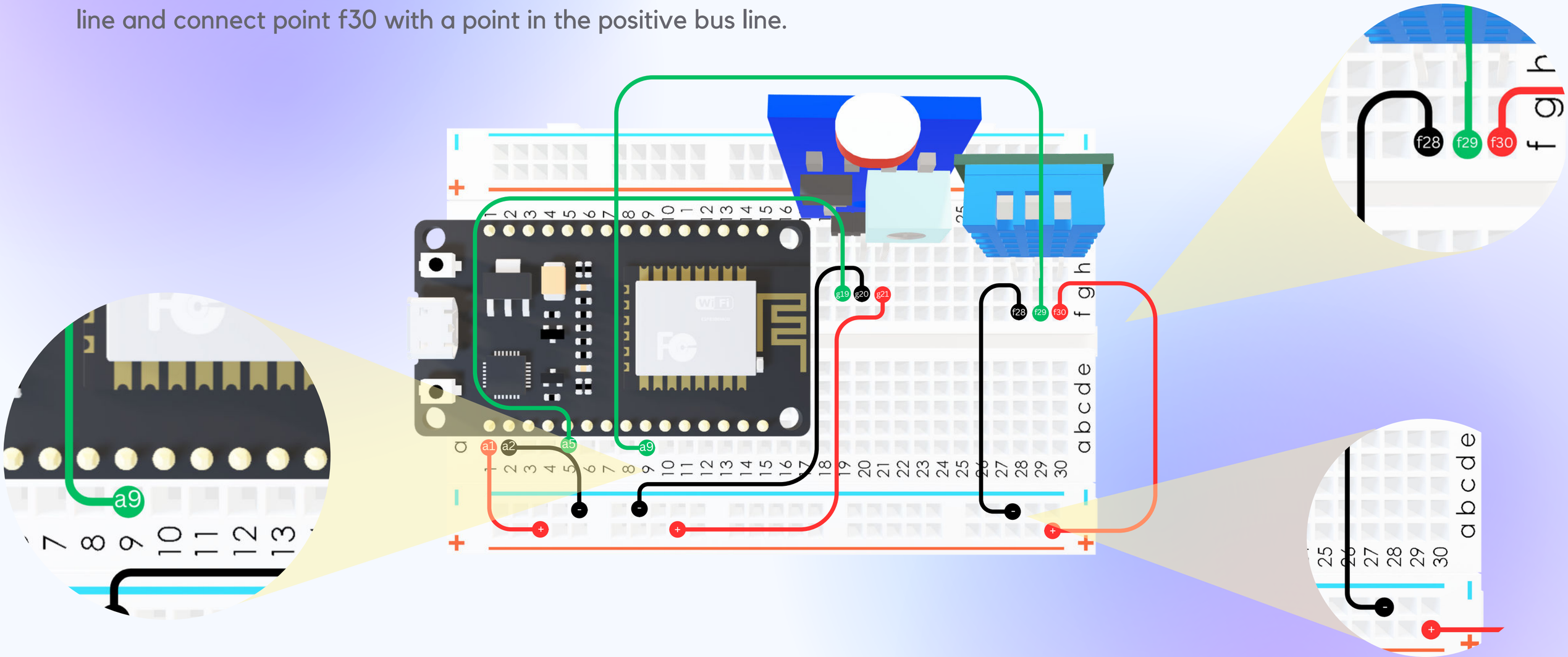
Place the DHT 11 Sensor

Place the DHT11 sensor on the breadboard ensuring that the GND Pin is placed on the point h28, DATA pin is placed on the point h29 and Vcc is placed on the point h30



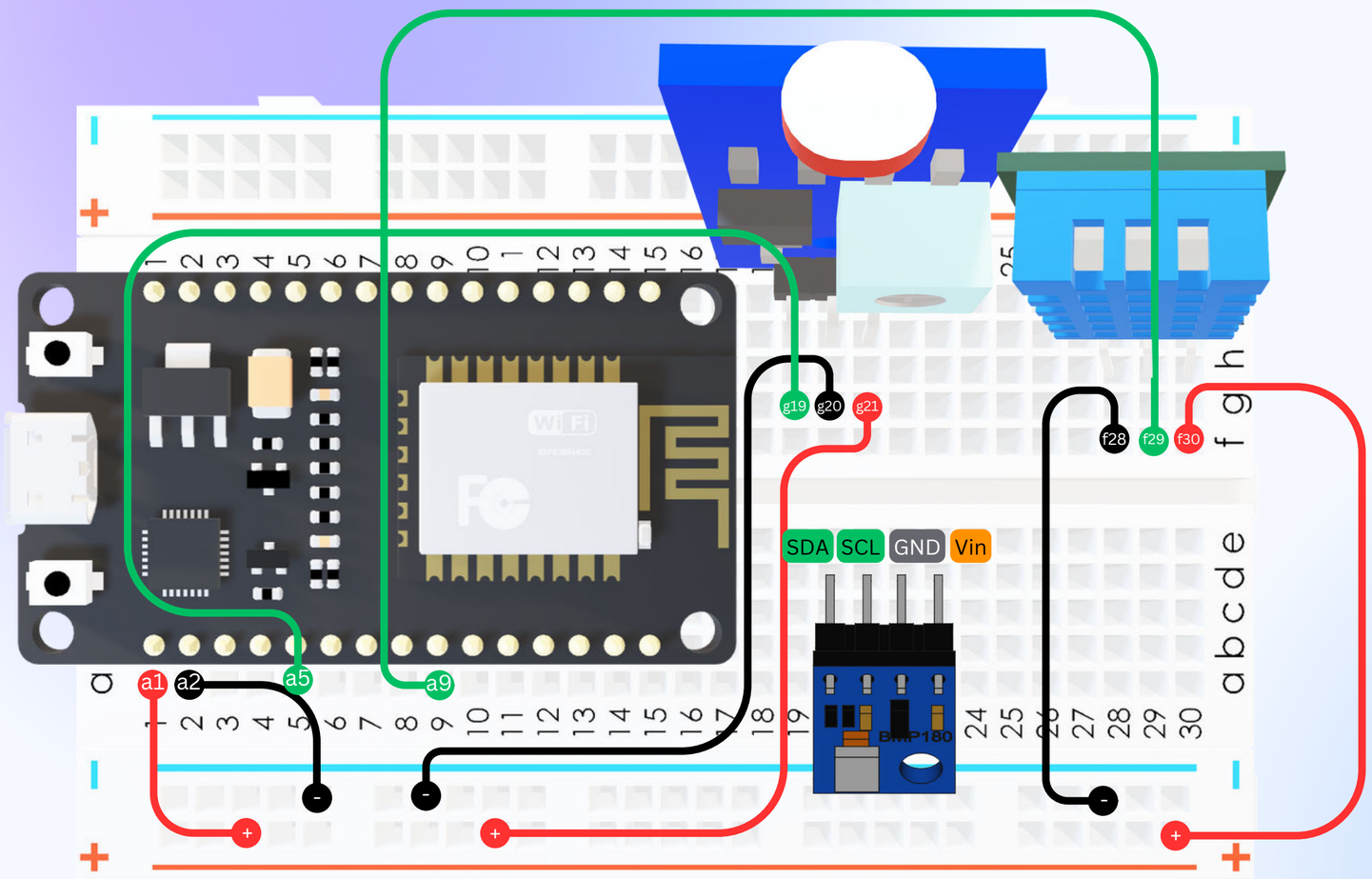
Complete the DHT 11 Sensor Connections

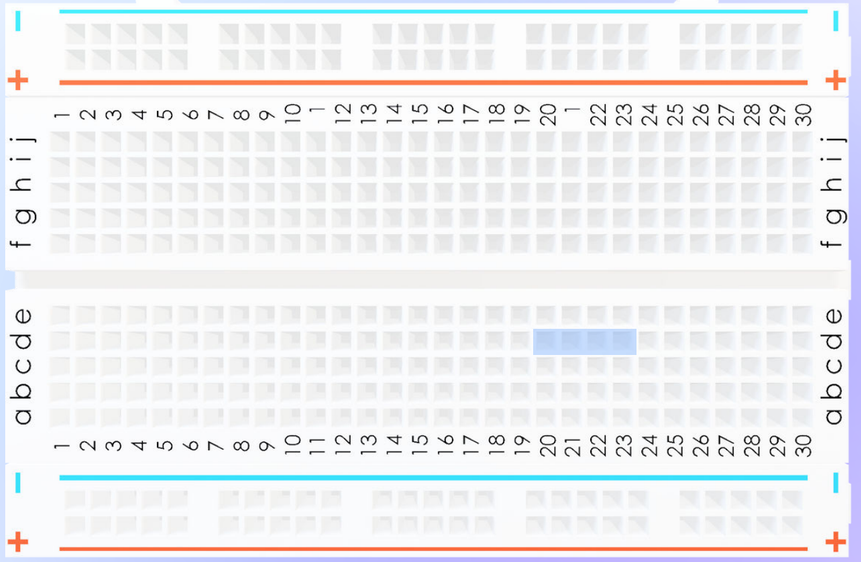
Connect point f29 with the point a9. Also, connect f28 with a point in the negative bus line and connect point f30 with a point in the positive bus line.



Place the BMP 180 Sensor

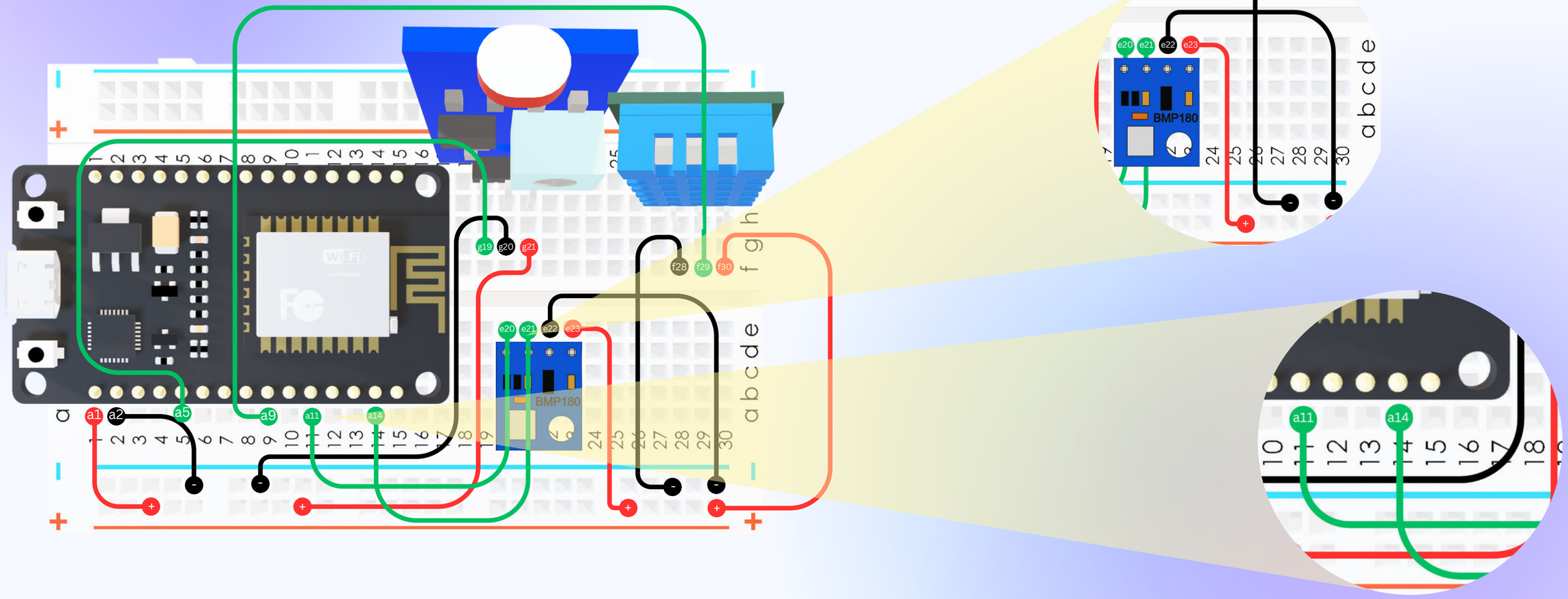
Place the BMP180 sensor on the breadboard ensuring that the SDA Pin is placed on the point d20, SCL pin is placed on the point d21, GND pin is placed on the point d22 and Vin is placed on the point d23





Complete the BMP 180 Sensor Connections

Connect point e20 with the point a11 and point e21 with the point a14. Also, connect e22 with a point in the negative bus line and connect point e23 with a point in the positive bus line.



Final Circuit