The DS18B20 temperature sensor is attached to pin 5 of the Arduino UNO, while the NPK sensor and the Ph sensor both use the RS-485 model to transfer data to the Arduino UNO. In the end, all of the data is transmitted to the ESP32 Wifi Module, which relays the information to the server. The Arduino's 5V and ground pins are used to connect the Wifi module to the board. For the purposes of communication, the Wifi module is attached to the Arduino nano through the TX and RX pins, which correspond to pins 1 and 0 on the Arduino UNO accordingly. Ph and NPK sensors both have their input voltages connected to an external source, and both the RS-485 and the external adapter are used as grounding points. Both the NPK and the Ph sensors, which are coupled to the RS-485 module, have a modbus A pin and a modbus B pin. The yellow pin is the modbus A pin, while the blue pin is the modbus B pin. The input voltage for the temperature sensor is 3.3V, and the data wire is coupled to a resistor with a 4.7k ohm value.

