

EDLAVP Weather Station Installation Instructions

To setup your EDLAVP-compatible weather probe, follow the instructions below.

Important Note: EDLAVP and its derivatives such as EDLAVP API, EDLAVP WebView, and EDLAVP Firmware, are all under development. There may be breaking changes, features may not function as intended, and issues are very likely to be present. You can submit bug reports for any of these products either [via email](#) or [by filling out this form](#).

Hardware Assembly

Parts

You will need the following components:

1. Arduino Uno R4 Wi-Fi
2. 1-Wire DS18B20 Temperature Probe (with a 6m cable)
3. A 4.7k Ω resistor
4. Male-to-male Jumper Wires
5. A small breadboard
6. A wire-to-board terminal block **for 3 wires**
7. Three LEDs: A blue, a green, and a red one (Optional)
8. Appropriate resistors for the LEDs (Optional – Required if you use LEDs)
9. A piezoelectric buzzer (Optional)

Circuit

1. Connect the wires from the temperature probe to the terminal block and insert the it into the breadboard.
2. Connect the 4.7k Ω resistor **between the data pin (yellow) and the VCC pin (red) of the sensor**.
3. Connect the sensor data pin (yellow) to Digital Pin 3 on the Arduino, the sensor VCC pin (red) to the 5V output on the Arduino, and the sensor ground pin (black) to the ground pin (GND) on the Arduino.

The following steps are optional

4. Connect the piezoelectric speaker's anode (+) to Digital Pin 5 on the Arduino, and its ground pin to the ground pin on the Arduino (GND).

5. Connect the cathodes from the three LEDs to the ground pin on the Arduino (GND) and wire each LED in series with an appropriate resistor.
6. Connect the resistor that is in series with the red LED to Digital Pin 7 on the Arduino.
7. Connect the resistor that is in series with the green LED to Digital Pin 8 on the Arduino.
8. Connect the resistor that is in series with the blue LED to Digital Pin 9 on the Arduino.

Programming Instructions

1. Connect the Arduino to a computer using a USB cable.
2. Clone the [EDLAVP Firmware git repository](#).
3. Install PlatformIO: <https://platformio.org/platformio-ide>
4. Create a new file, `options.h` in the /src directory, using the `example.options.h` as a template.
5. In a terminal window, `cd` into the repository you cloned and run this command

```
pio run -t upload -e uno_r4_wifi
```

You can also use `--upload-port` to specify a port such as COM4 or /dev/ttyAM0