

Lab Report: Experiment 9

Wireless Connectivity

Group 2

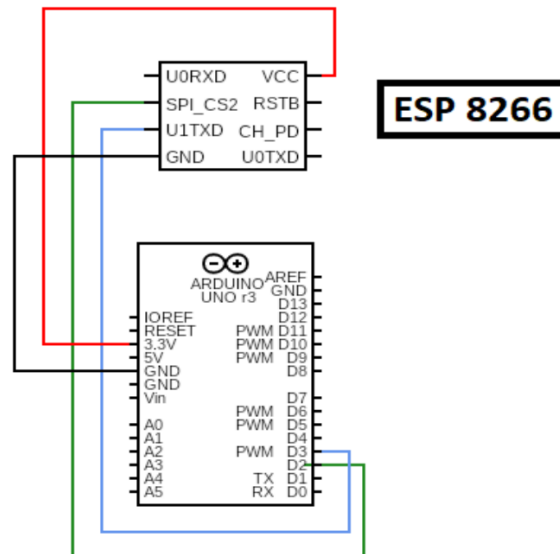
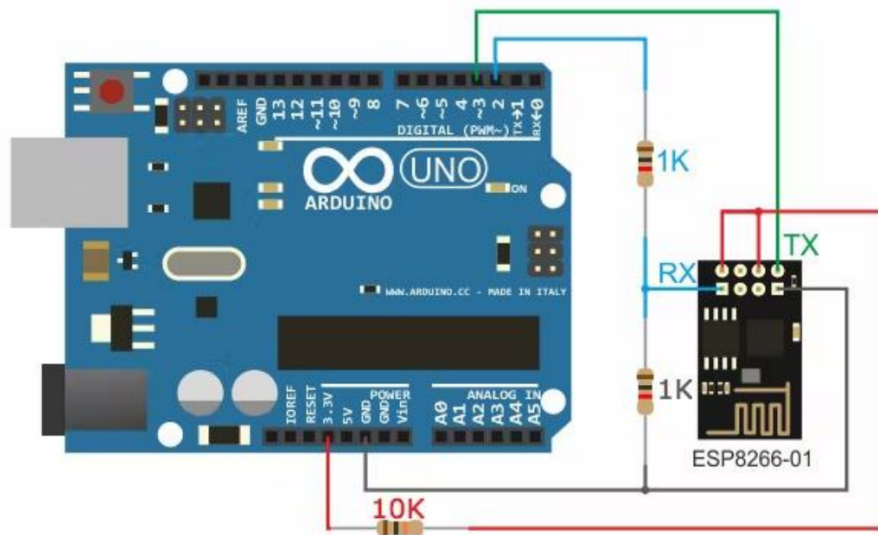
For this experiment, we used an ESP-8266 wireless module to provide an Arduino with wireless connectivity. We used two 1k resistors that connected the wireless module to the pins 2 and ground. The leftmost two pins on the wireless module were connected to the power source. The breakout board is needed so that it can hook up with the voltage provided through the Arduino board.

Assignment 9 Components

ESP8266	Resistor	Arduino Uno
GND		GND
VCC/3.3V/Power	10K	3.3V
CH_EN/Enable	10K	3.3V
TX		PIN 3
RX	1K	PIN 2
RX	1K	GND

Follow these steps.

- connect both ESP's VCC/3.3V/Power Pin and Enable Pin (red wires) to 10K resistor then to Uno's +3.3V power pin.
- connect ESP's Ground/GND Pin (Black Wire) to Uno's Ground/GND Pin.
- connect ESP's TX (green wire) to Uno's Pin 3
- connect ESP's RX (blue wire) to 1K resistor then to Uno's Pin 2.
- connect ESP's RX (blue wire) to 1K resistor then to Uno's GND Pin.



What we learned:

We learned that we can give wireless functions to Arduino by using a specialized wireless module that has its own IP address, able to be connected and send output to the serial monitor on an external monitor. We also learned that the TX and RX pins are used for serial communication with a PC via the USB connection. Not to mention that “AT” is the prefix that informs the wireless breakout board of the start of the command line.