

You are having brain with

- Arduino UNO development board
- USB B type Cable
- Bread Board
- ESP8266 WiFi module
- 2 relays
- Red, Green, Blue LEDs
 - 1 Buzzer
- 2 push button switches
- 1 LDR
- 10k Ohm resistor
- 1 IR sensor
- 1 LM35 (temperature sensor)

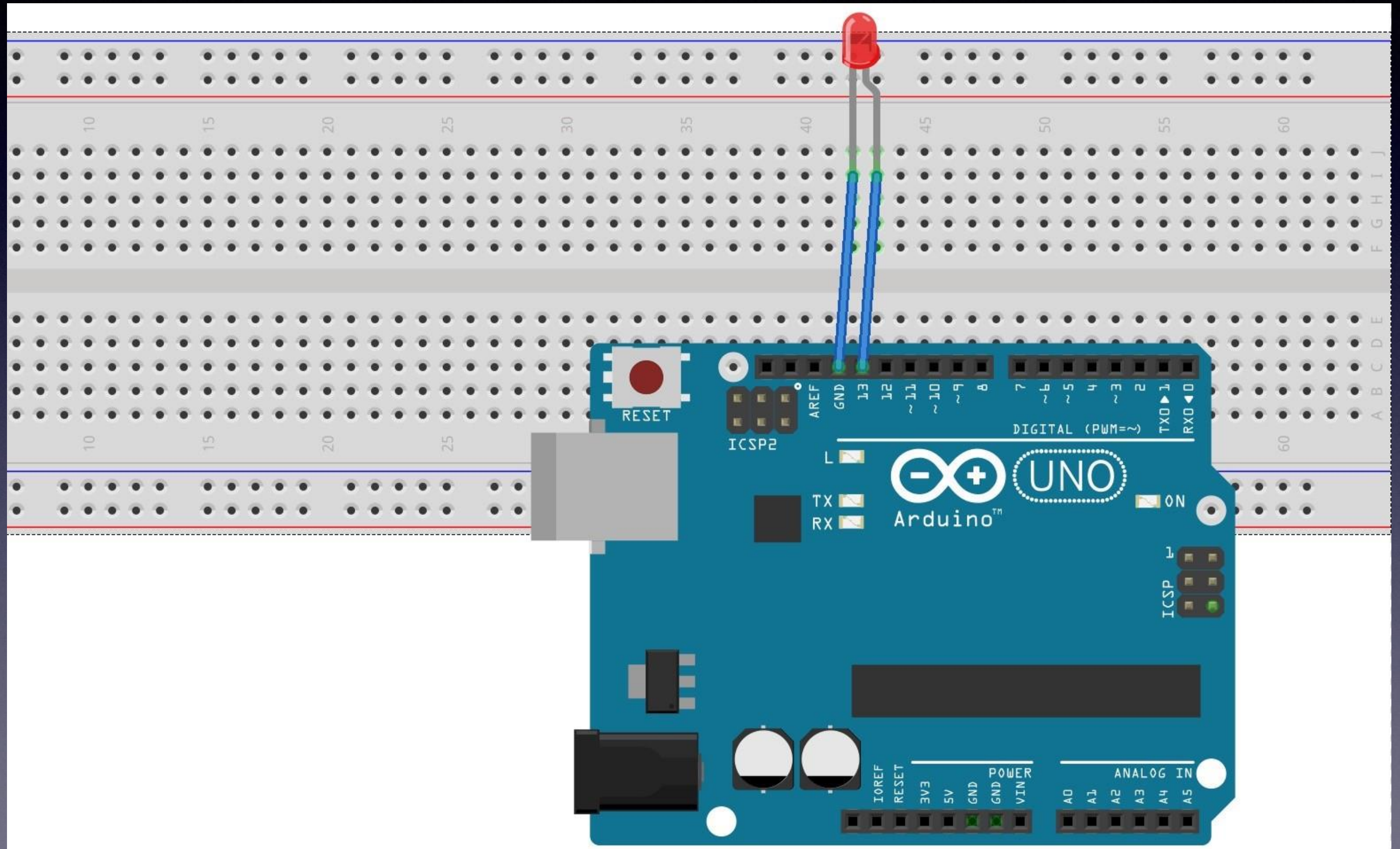
- 5 Male to male connecting wires
- 5 Male to female connecting wires

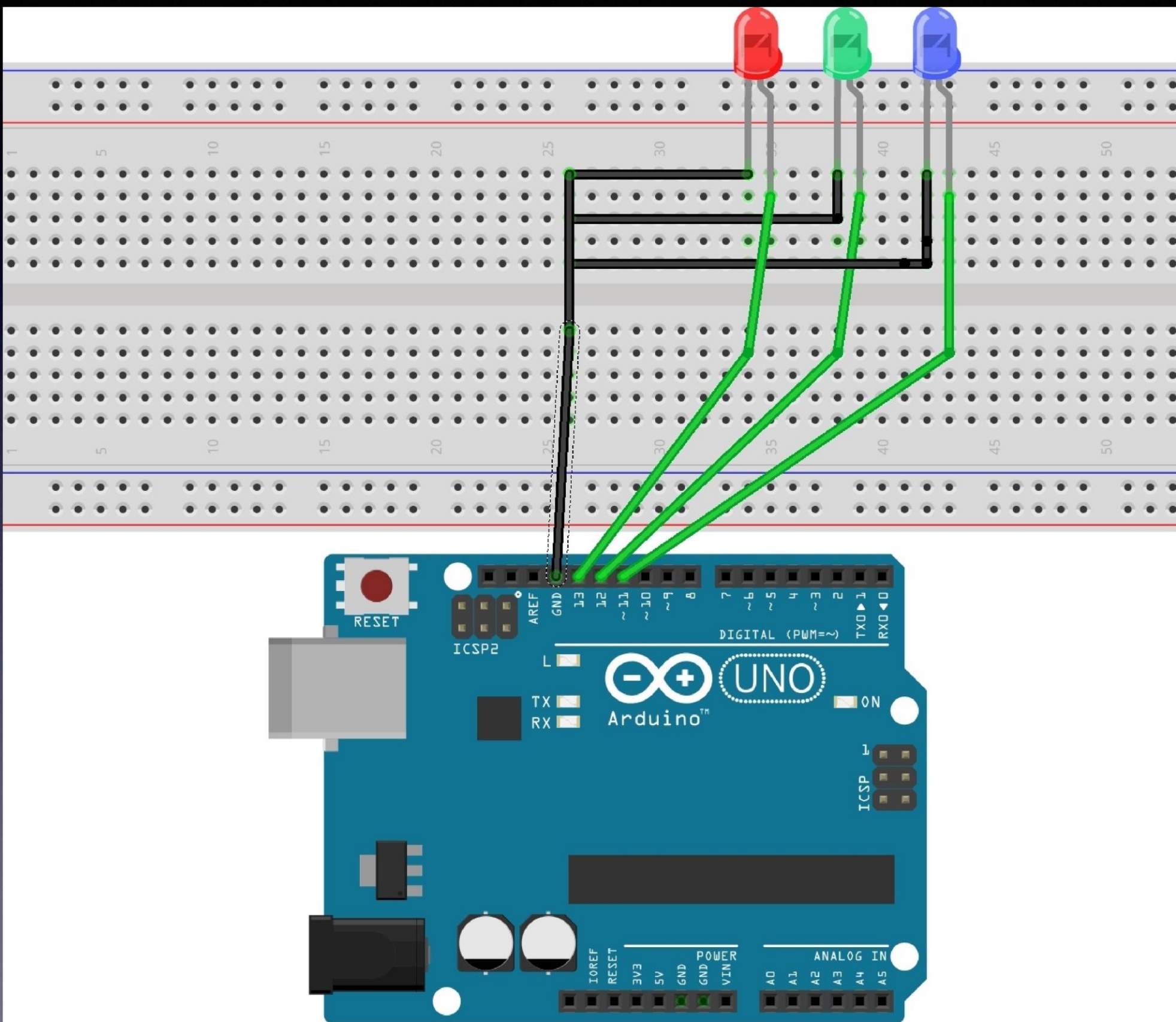
Your software toolkit having

- Arduino Software
- CH34x driver

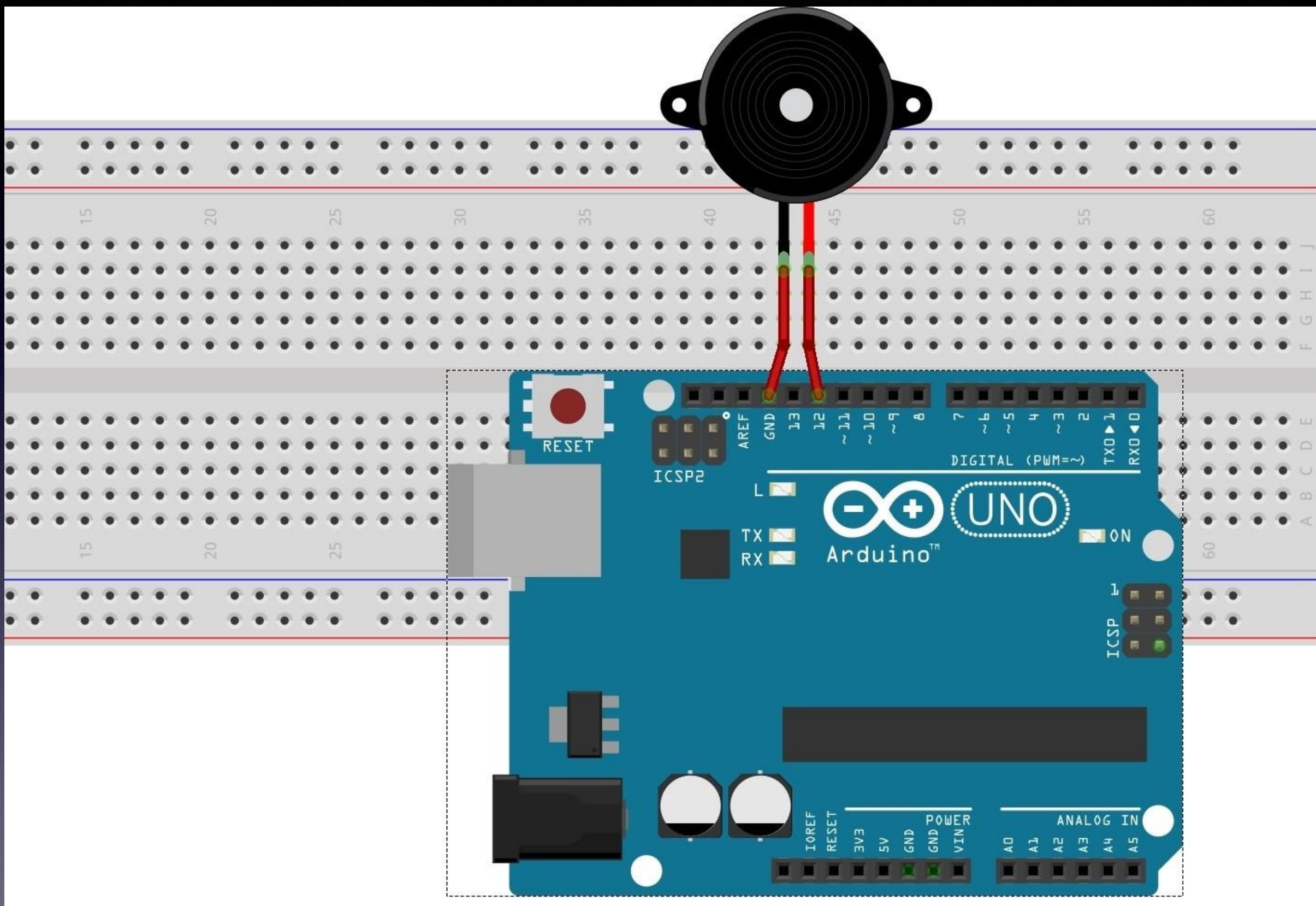
Your first Arduino
Code :-)

LED Connection

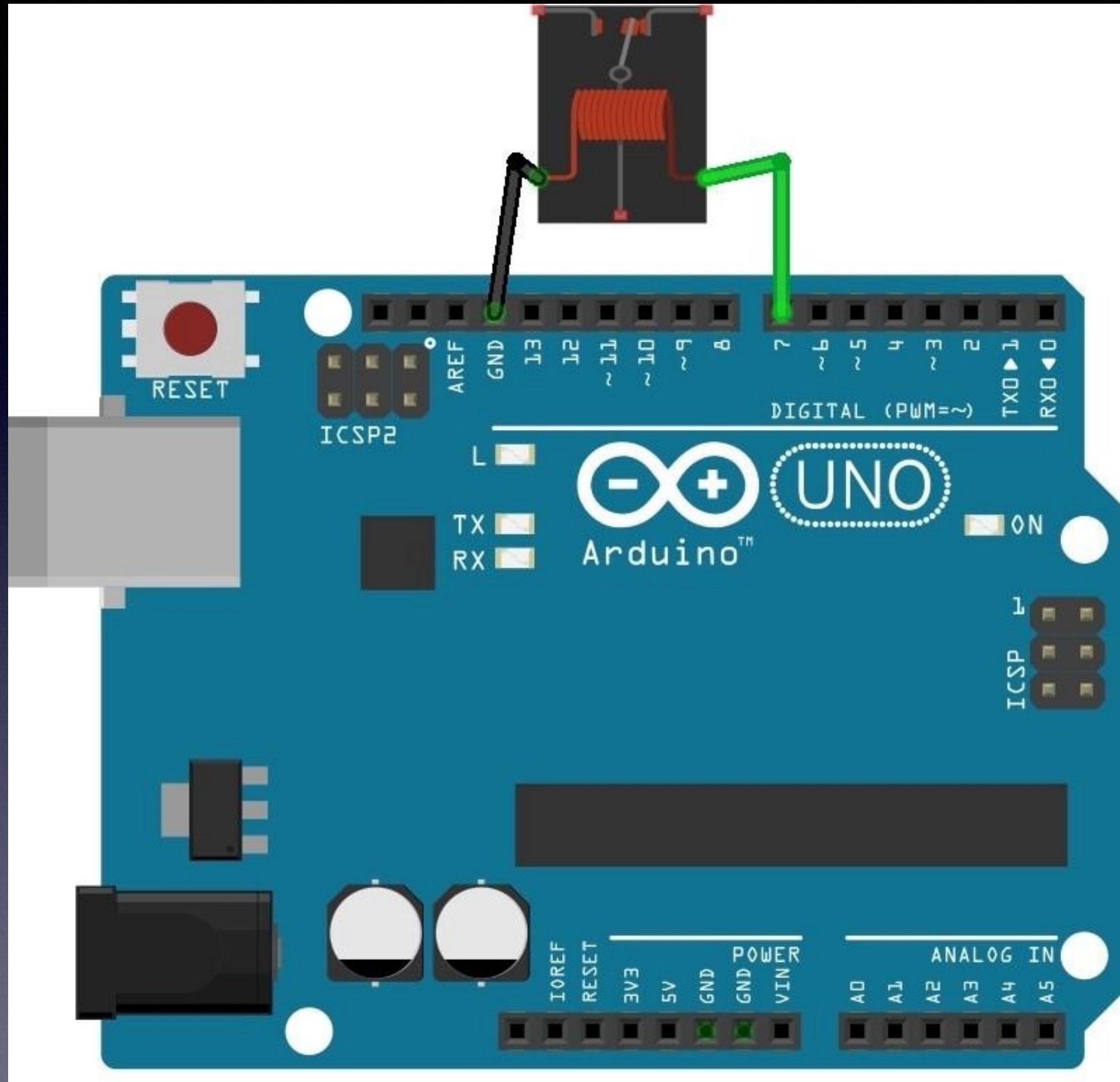




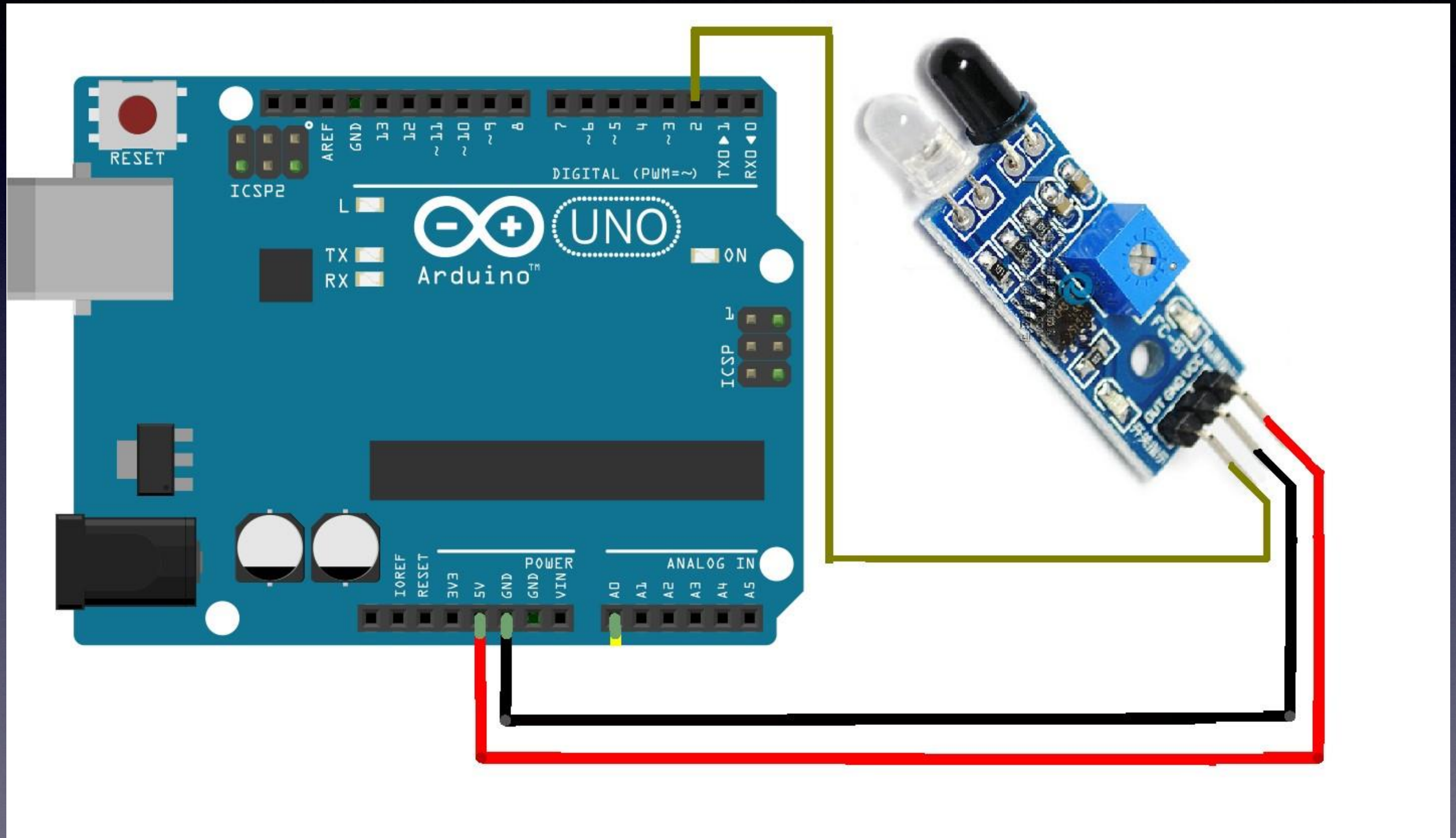
Buzzer interfacing



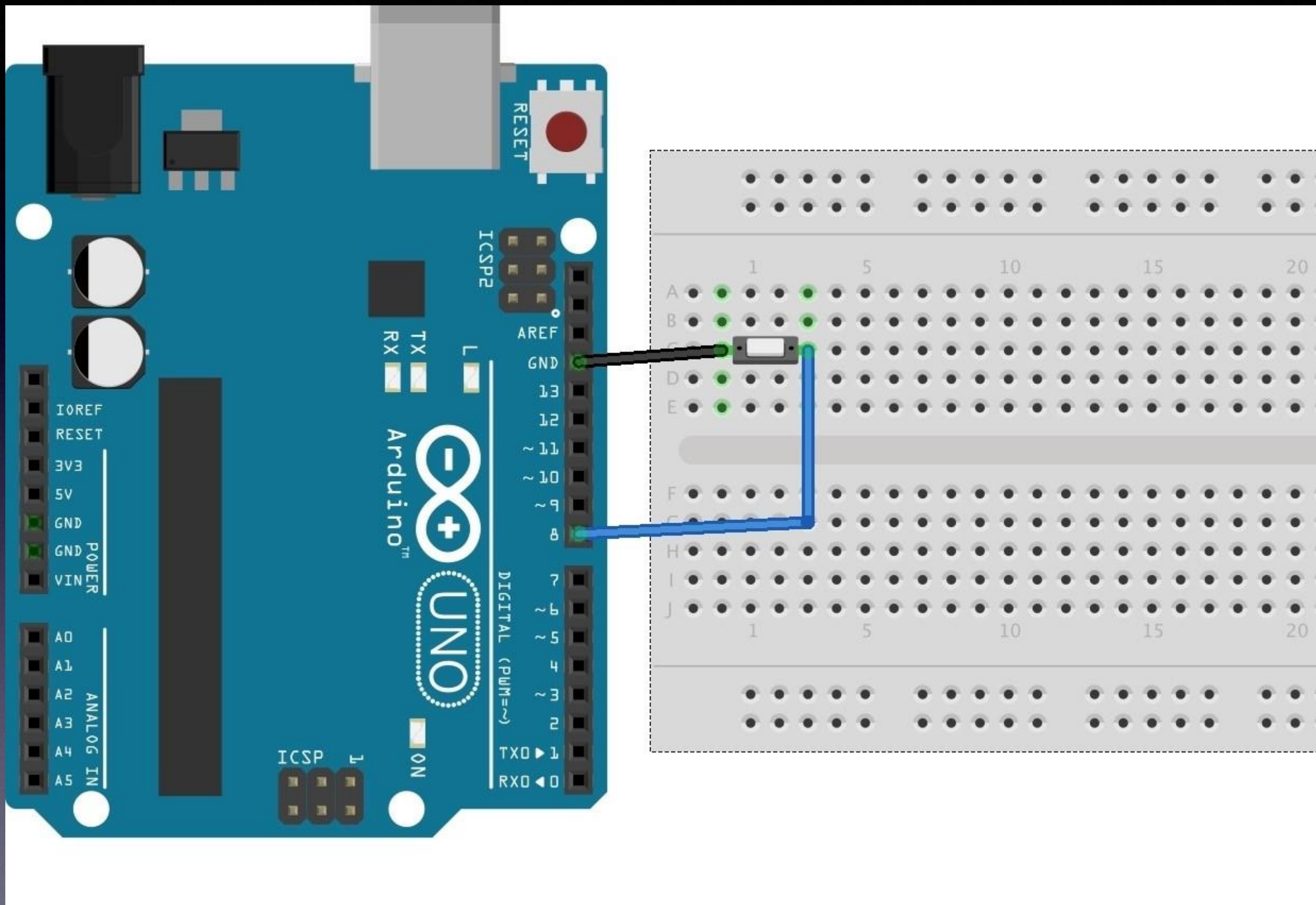
Relay interfacing



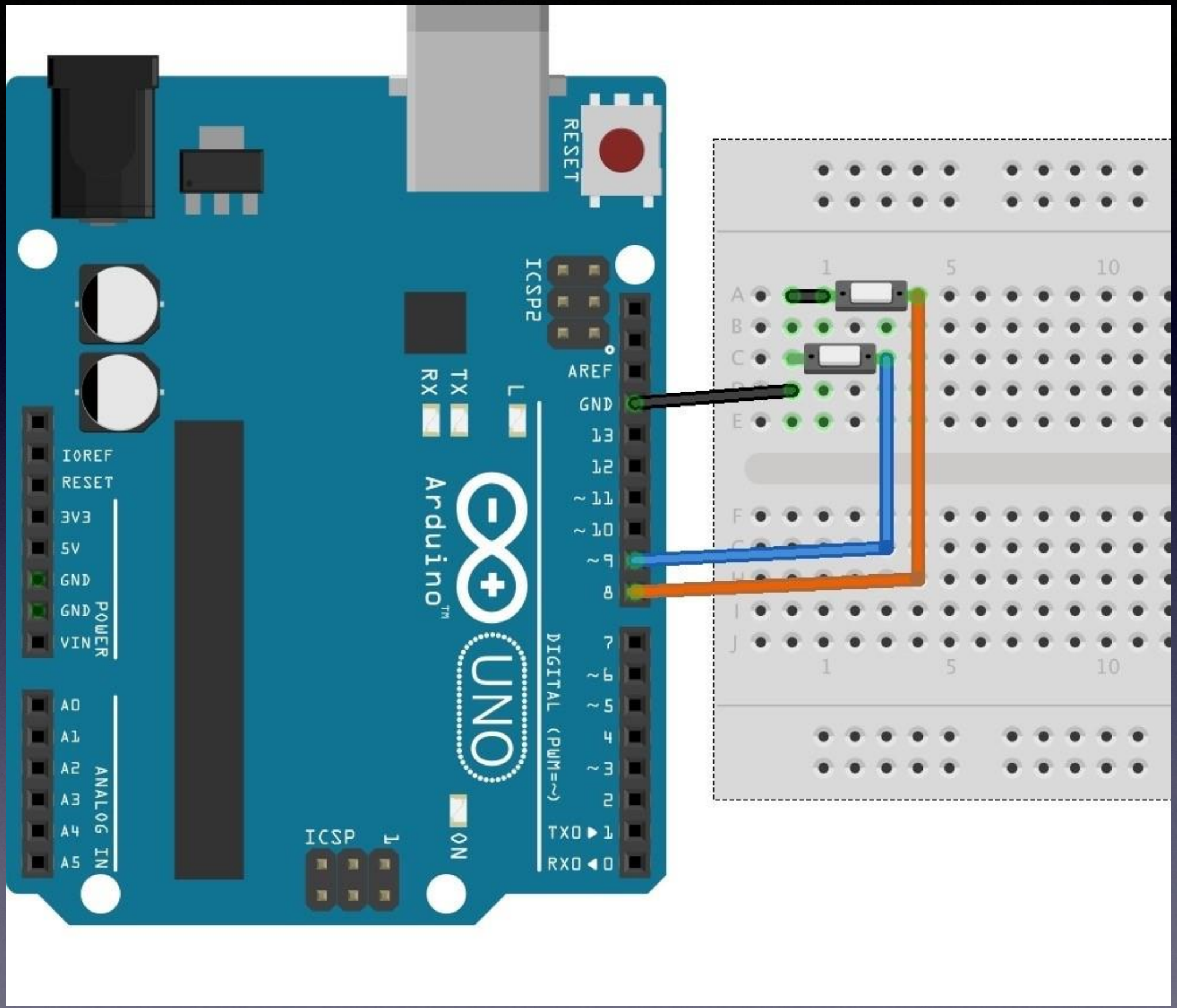
IR sensor interfacing



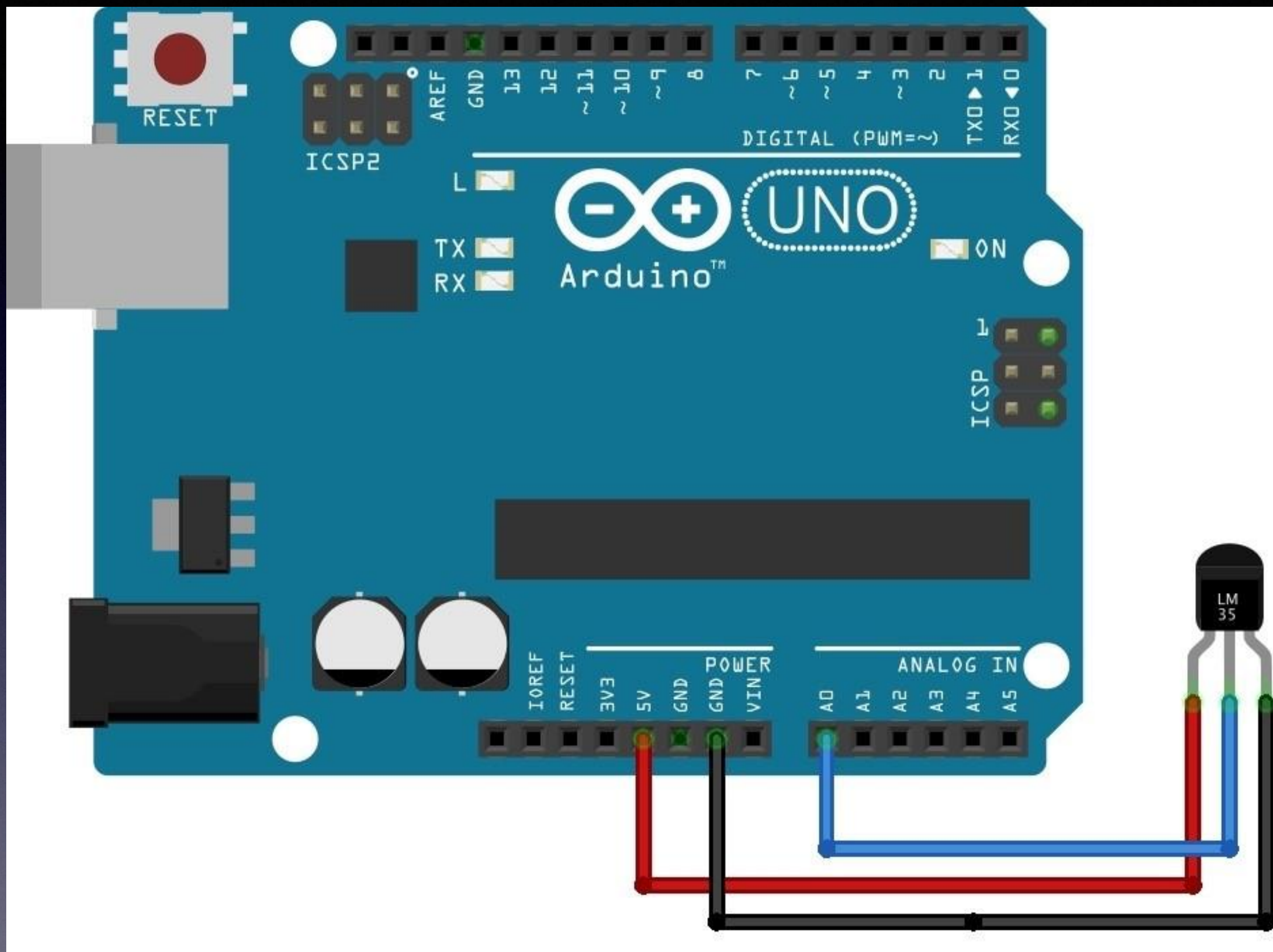
Switch Interfacing

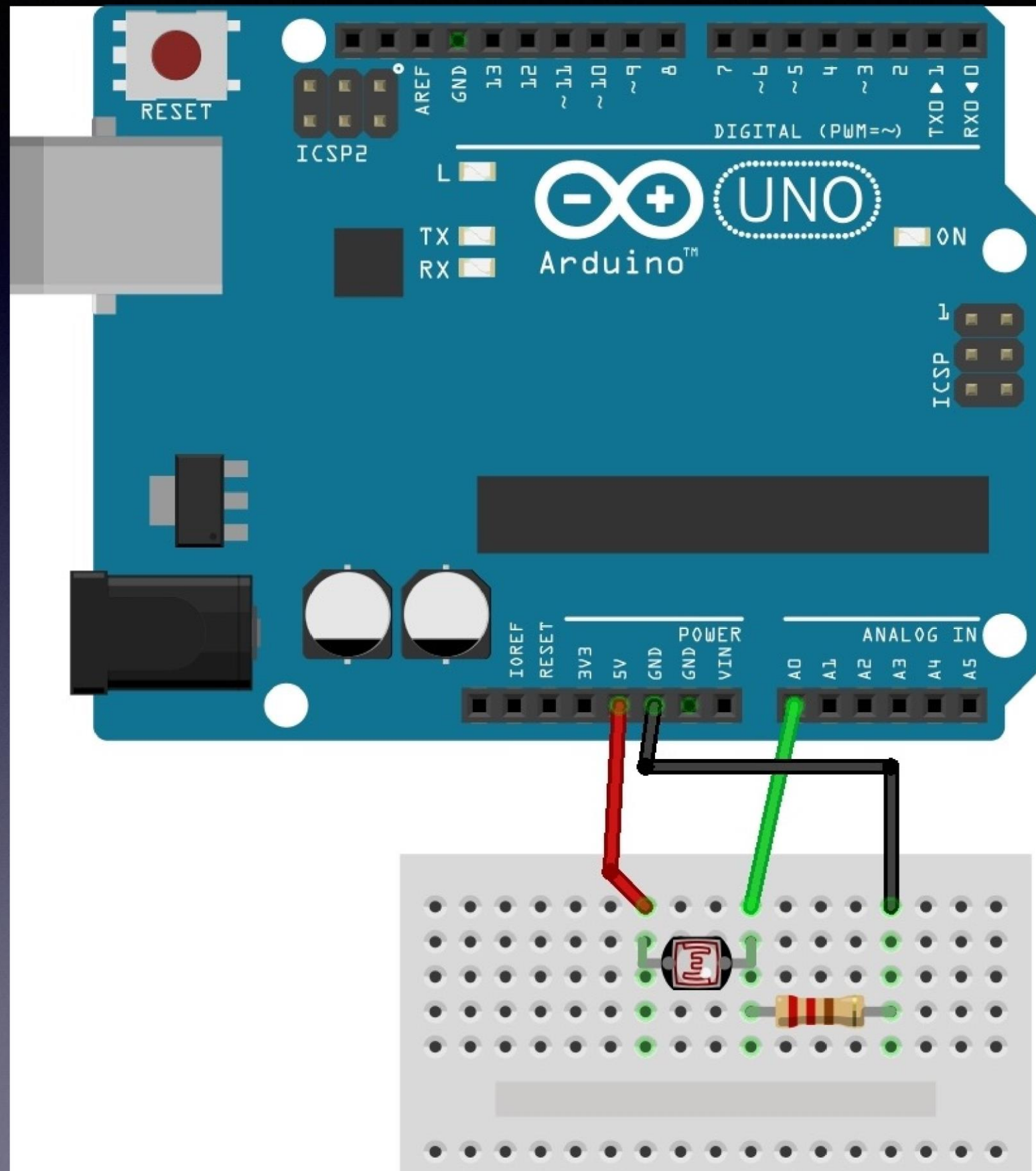


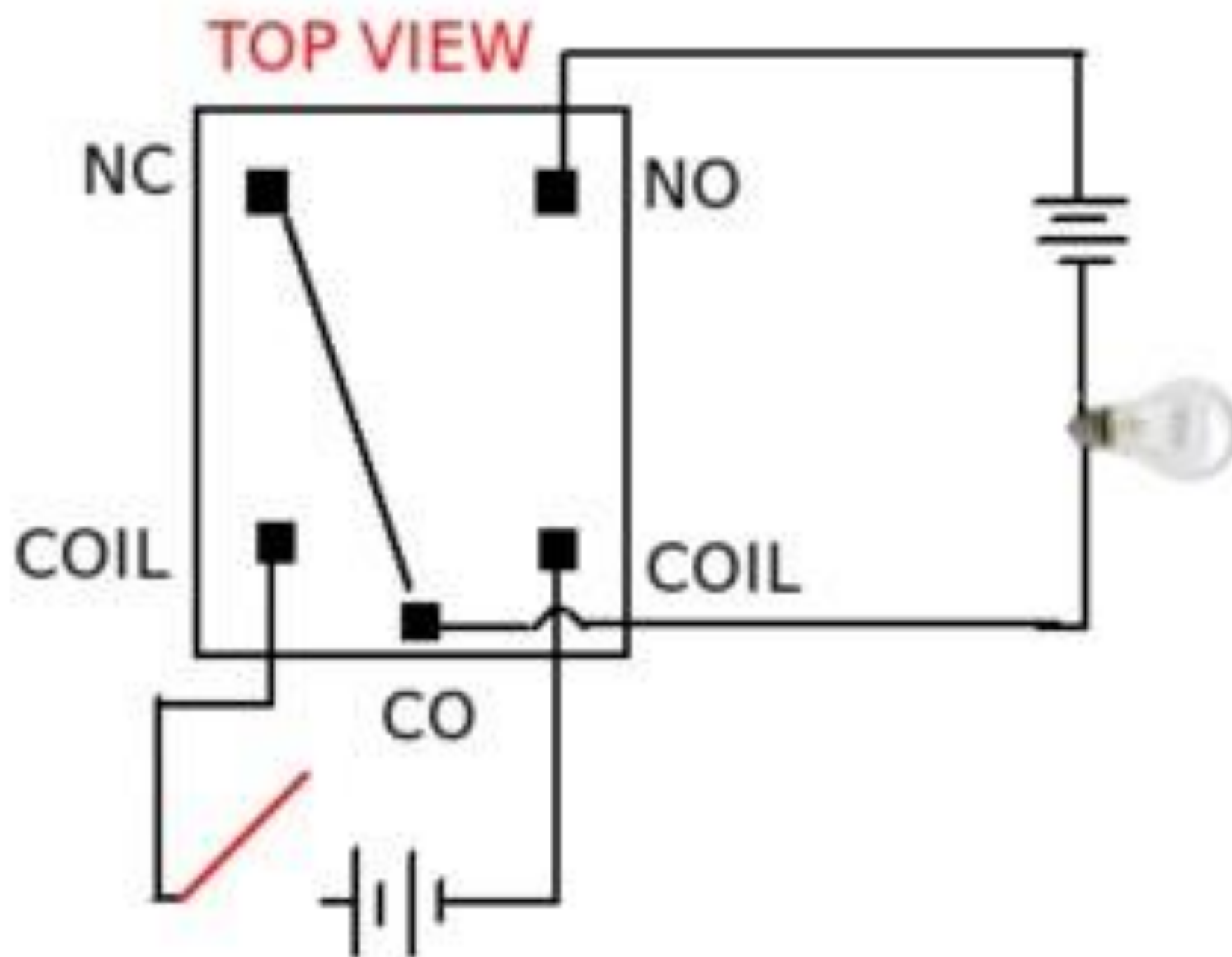
2 Switches Interfacing



LM35 Interfacing



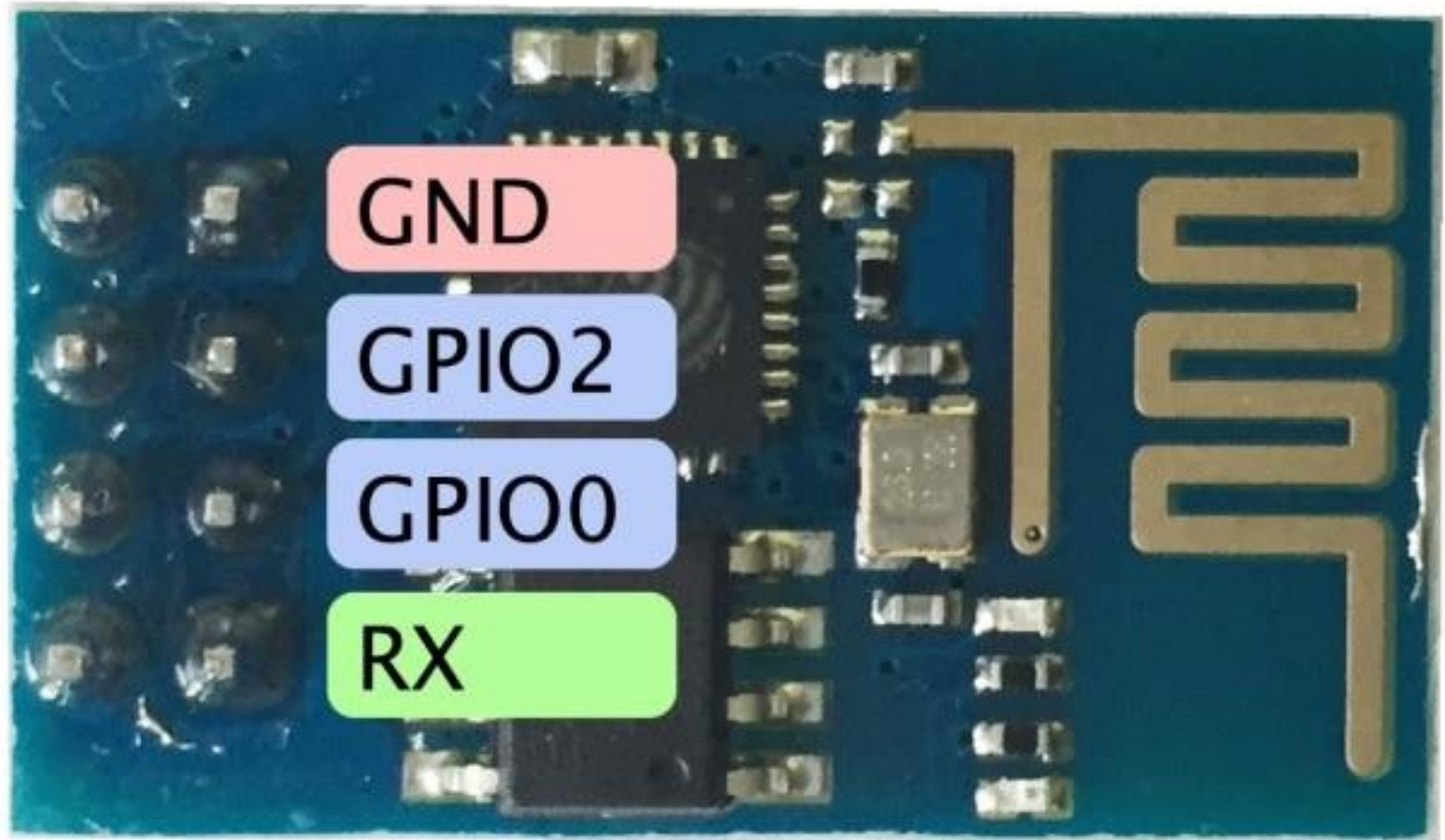




Relay with LED interfacing

ESP8266 Pin Outs

TX
CH_PD
RST
VCC

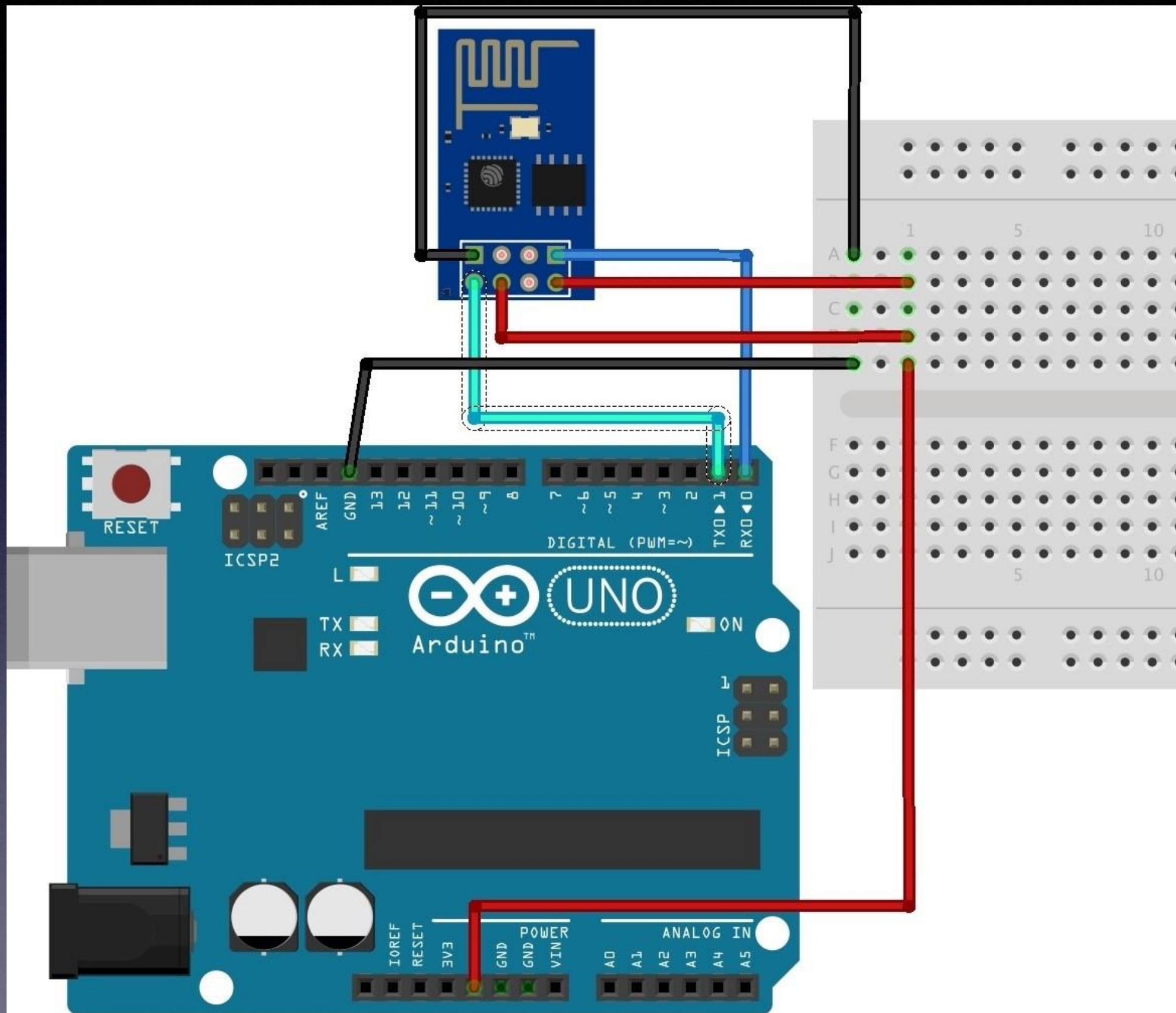


GND

GPIO2

GPIO0

RX



ESP8266 AT Commands

Command	Response	Description
AT	OK	Test AT startup
AT+RST	OK	Restart Module
AT+GMR	OK	View version info
AT+CWMODE=1	OK	Station, hotspot
AT+CWLAP	WiFi connection name	List out available WiFi
AT+CWJAP="SSID","Password"		Connect to WiFi
AT+CWJAP_CUR?		To see connected WiFi
AT+CWQAP	OK	WiFi disconnected
AT+CWSAP="hello","1234567890",5,3		To create HotSpot

AT+CWSAP_CUR?	To see hotspot name
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Send sensor data to the cloud.



Analyze and visualize your data.



Trigger a reaction.

Write Key from

Smartlogic

Channel ID: **103952**
Author: **vishal_barot**
Access: Public

This is my general purpose channel.

[Private View](#)

[Public View](#)

[Channel Settings](#)

[API Keys](#)

[Data Import / Export](#)

Write API Key

Key

CGKKIRGZYQGU4KTI

[Generate New Write API Key](#)

Read API Keys

Key

NXKSRWHL9N40IVEU

Note

[Save Note](#)

[Delete API Key](#)

Help

API keys enable you to write data to a channel or read data from a private channel. API keys are auto-generated when you create a new channel.

API Keys Settings

- **Write API Key:** Use this key to write data to a channel. If you feel your key has been compromised, click **Generate New Write API Key**.
- **Read API Keys:** Use this key to allow other people to view your private channel feeds and charts. Click **Generate New Read API Key** to generate an additional read key for the channel.
- **Note:** Use this field to enter information about channel read keys. For example, add notes to keep track of users with access to your channel.

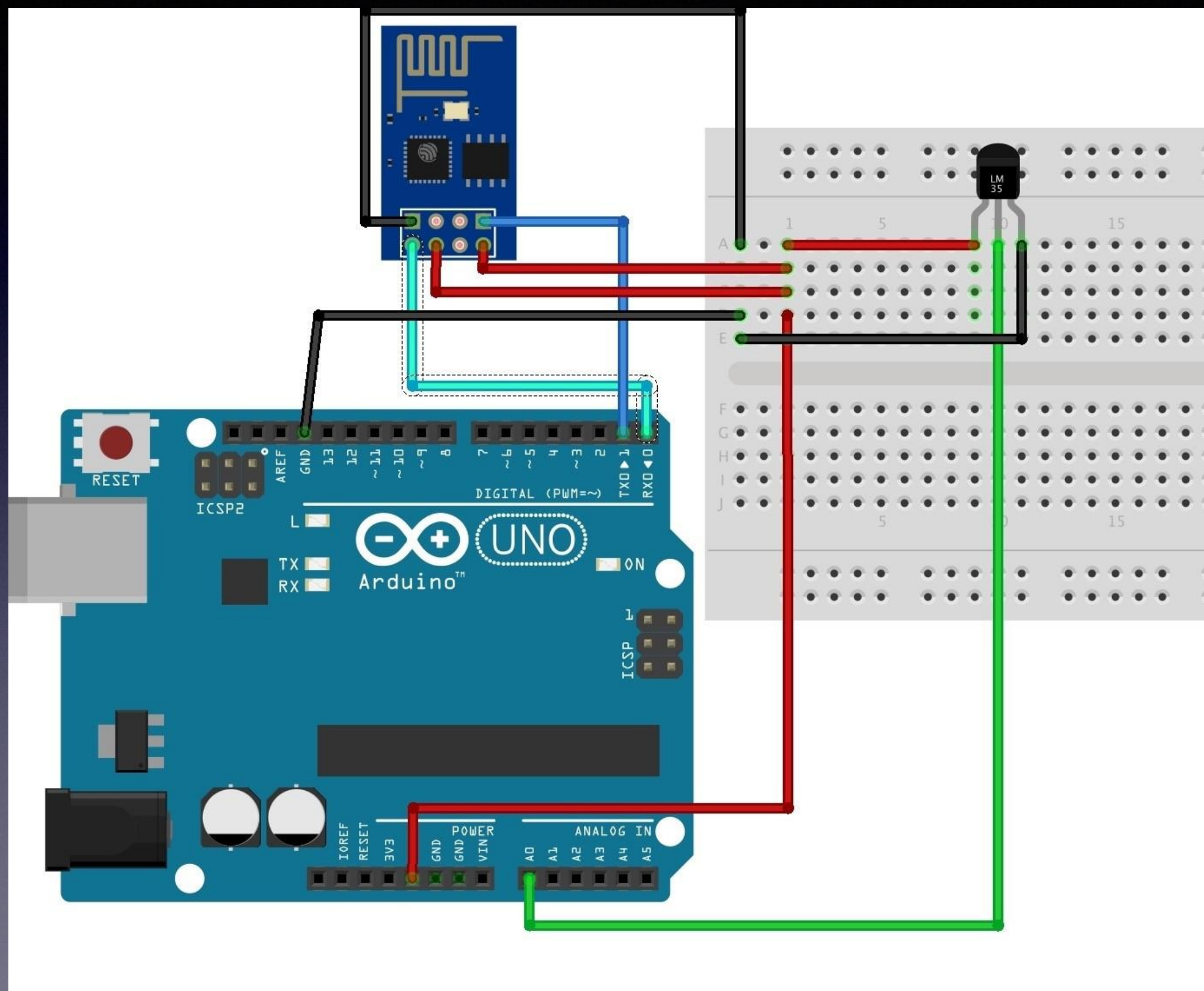
Create a Channel

```
POST https://api.thingSpeak.com/channels.json
api_key=YN7PUG72EC2RMUUD
name=My New Channel
```

Update a Channel

```
PUT https://api.thingSpeak.com/channels/103952
api_key=YN7PUG72EC2RMUUD
name=Updated Channel
```


Thingspeak



Temperature Graph

ThingSpeak™

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+ Add Visualizations

Data Export

MATLAB Analysis

MATLAB Visualization

Channel Stats

Created 4 months ago
Updated 37 minutes ago
Last Entry 37 minutes ago
11 Entries



Thank You :)

- Anurag Bhanbewaal
- Rameel