

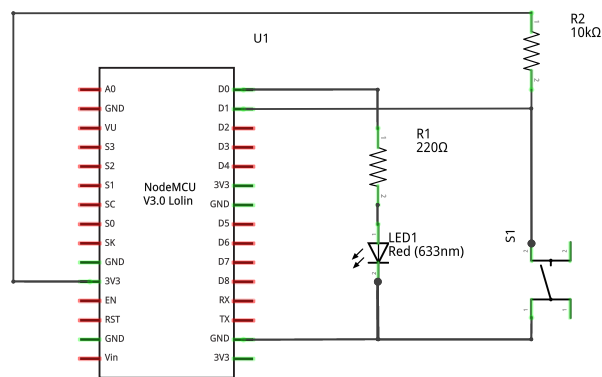
Assignment: MQTT with button and LED

Goals

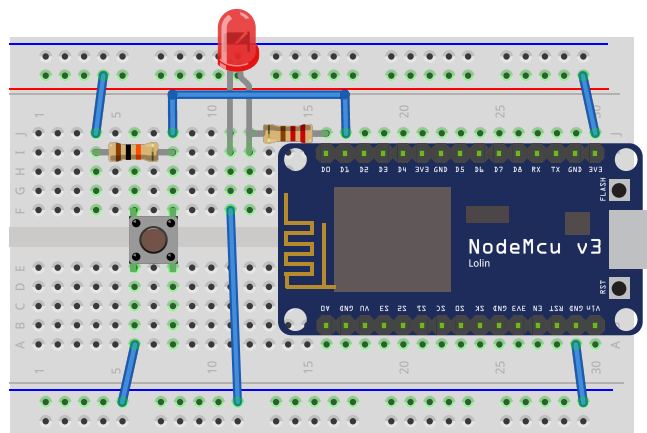
- Get acquainted with MQTT.
- Publish a message when a button is pressed.
- Subscribe to a topic to control the LED

Step 1

Wire up this schematic on the bread board:



fritzing



fritzing

Step 2

- Read button, print message on terminal

Step 3

- Connect to the Wi-Fi network
 - Use `WiFi.localIP()`
- Connect to MQTT broker

Step 4

- Publish a message on button press on the topic `ndc/$device-id/button`

Step 5

- Subscribe to the topic `ndc/$device-id/led` and turn the LED on/off based on the contents of the message.

Tips

To generate a client id make something with `ESP.getChipId()`

Creating a `String` from a number:

- `String(123) => "123"`
- Hex formatted: `String(0x123abc, HEX) => "123abc"`

Some APIs require “plain C strings” aka a `char *`. They can be converted with `String::c_str()`:

```
char *cStr = myString.c_str();
```