

Functional description:

1.Multicolor LED control: Rainbow from Red(add water) to Blue(full water),
Flashing LED – replace filter.

2.Button:

- Short: manual pump on/off, change LED brightness.
- 2sec resets filter time
- 10sec resets settings

Group Reed by 2 with vertical shift to get reliable reading in magnet transition positions.
Power LED with 5V, and the rest of the circuit with 3.3V from the fountain.

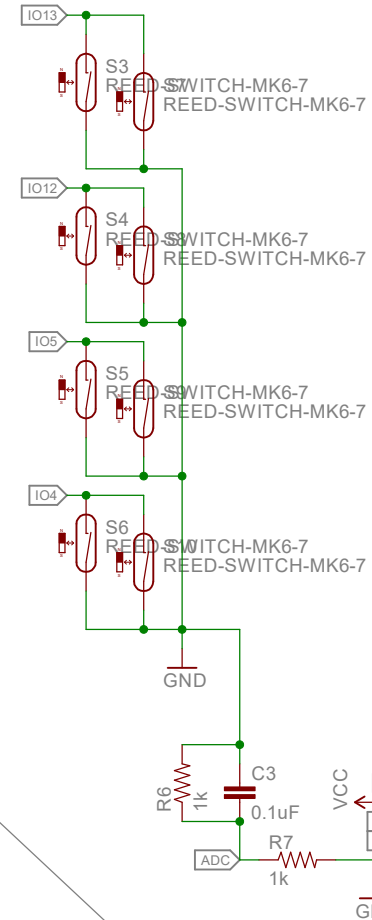
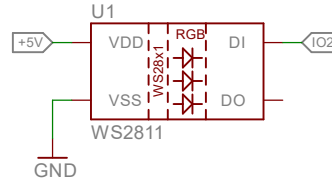
Recommended to remove blue LED from the ESP module:

- reduce distraction;
- reduce power consumption.

OVP of ADC is realized with R6, R7, C3.

R7 + C3 are low pass filter for up to 10kHz.

R7 + R6 are voltage divider.

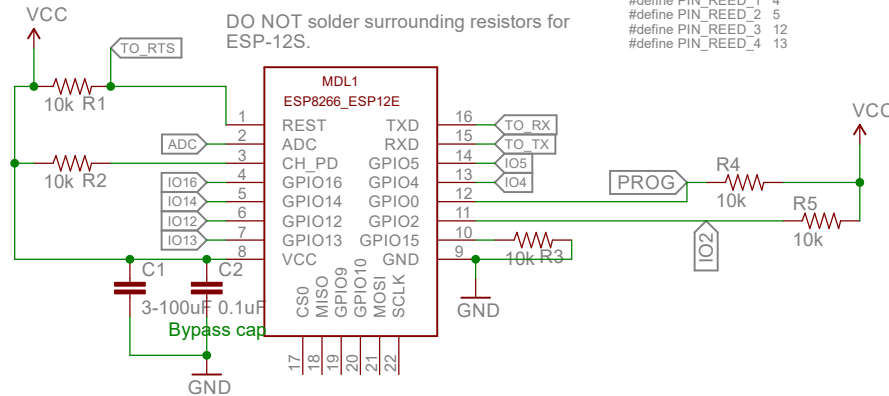


MCU CIRCUIT

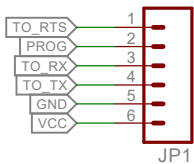
ESP-12E and ESP-7 are pin compatible.
Use 4MB FW image for ESP-12E and
1MB FW image for ESP-7.

DO NOT solder surrounding resistors for
ESP-12S.

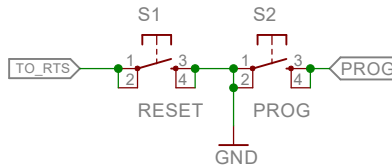
```
#define PIN_LED 2
#define PIN_IR_LED 16
#define PIN_IR_DET A0
#define PIN_PUMP 14
#define PIN_REED_1 4
#define PIN_REED_2 5
#define PIN_REED_3 12
#define PIN_REED_4 13
```



FW burn header



Optional buttons, PROG recommended



Pet fountain

esp12_pet_fountain

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iGrowing

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Rev:1.0