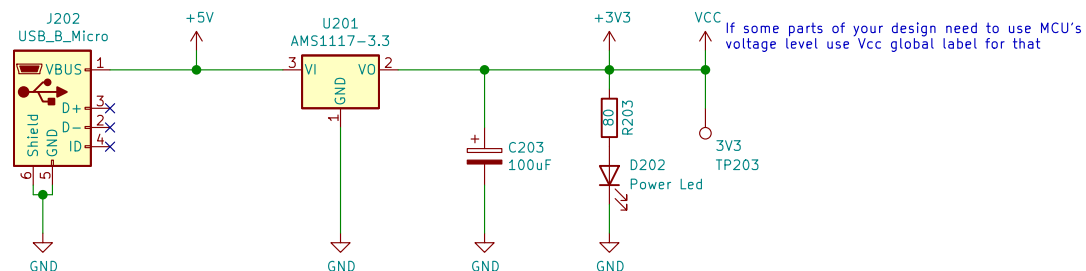
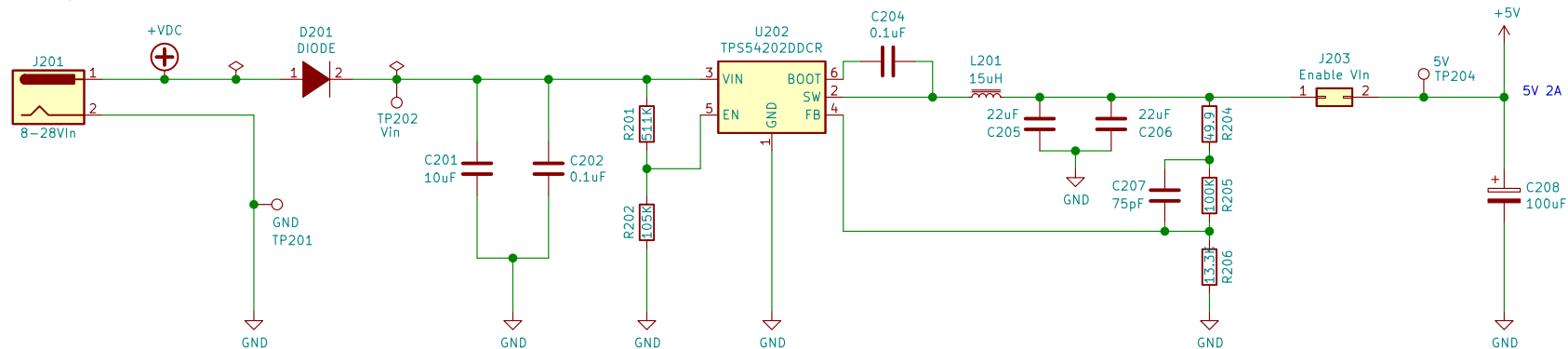


If you want to use input voltage  
in other places (e.g. mosfets)  
use VDC global label for that



Remote Relay Switches  
<https://github.com/Grehasopt/Electra>

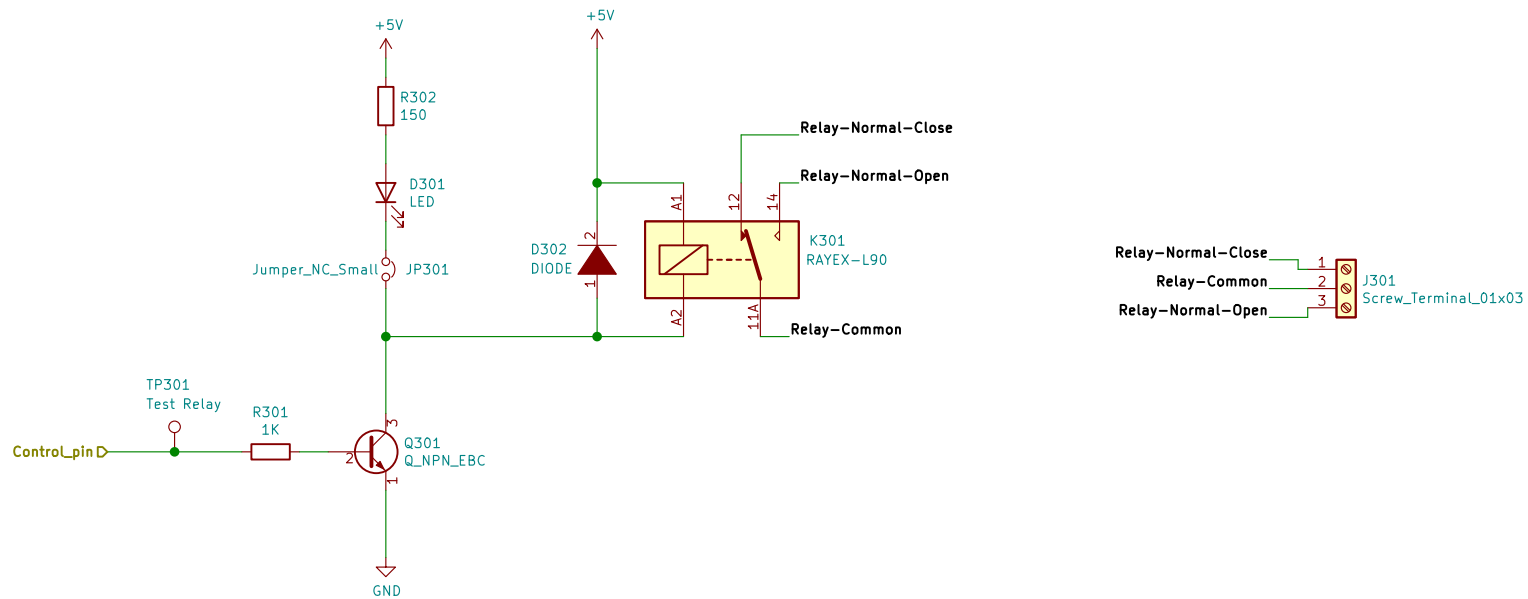
**Grehasopt**

Sheet: /Power/  
File: Power.sch

**Title: Electra Project**

Size: A4 Date: 2021-03-21  
KiCad E.D.A. kicad 5.1.9-73d0e3b20d88ubuntu18.04.1

**Rev: 1**  
Id: 2/7



Remote Relay Switches  
<https://github.com/Grehasopt/Electra>

**Grehasopt**

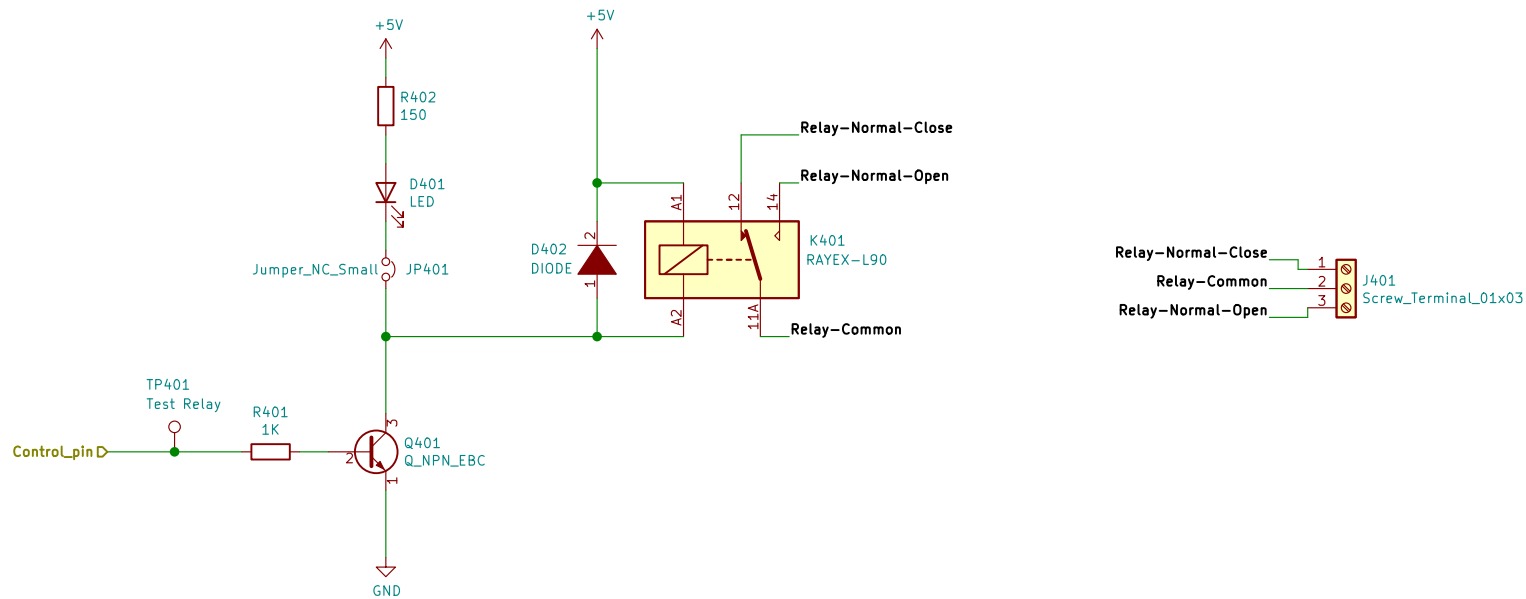
Sheet: /Relay2/

File: Relay2.sch

**Title: Electra Project**

Size: A4 Date: 2021-03-21  
 KiCad E.D.A. kicad 5.1.9-73d0e3b20d88ubuntu18.04.1

**Rev: 1**  
 Id: 3/7



Remote Relay Switches  
<https://github.com/Grehasopt/Electra>

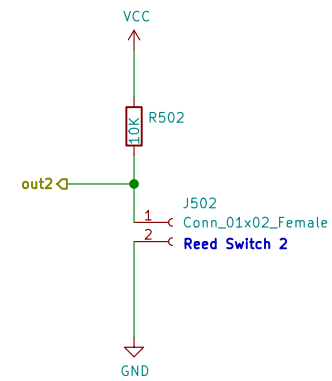
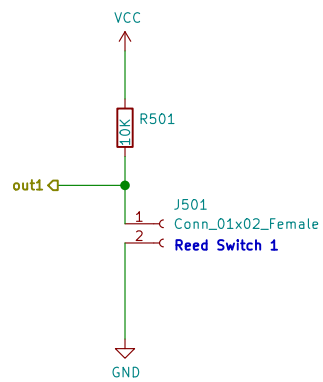
**Grehasopt**

Sheet: /Relay1/  
 File: Relay1.sch

**Title: Electra Project**

Size: A4 Date: 2021-03-21  
 KiCad E.D.A. kicad 5.1.9-73d0e3b20d88ubuntu18.04.1

**Rev: 1**  
 Id: 4/7



Remote Relay Switches  
<https://github.com/Grehasopt/Electra>

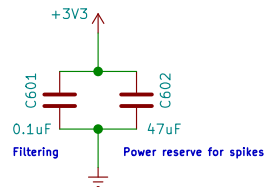
**Grehasopt**

Sheet: /Reed Switches/  
File: Reed Switches.sch

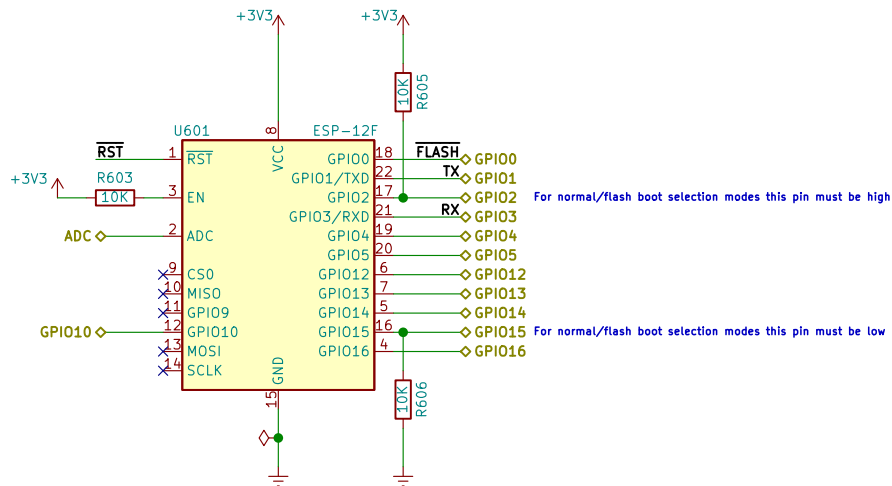
**Title: Electra Project**

Size: A4 Date: 2021-03-21  
KiCad E.D.A. kicad 5.1.9-73d0e3b20d88ubuntu18.04.1

**Rev: 1**  
Id: 5/7

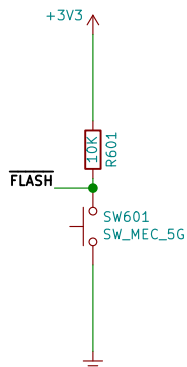


Put those C as close as possible to the MCU

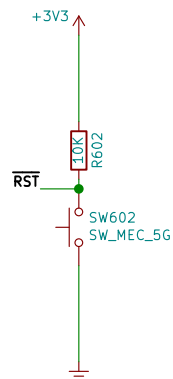


For normal/flash boot selection modes this pin must be high

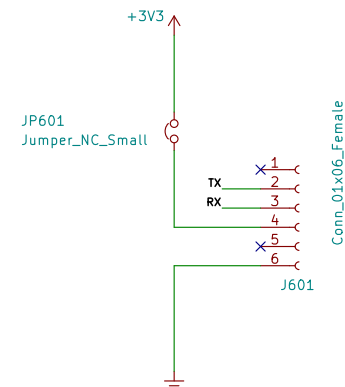
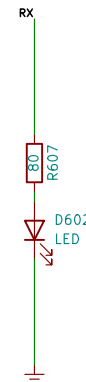
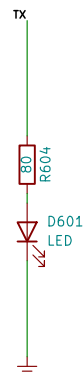
For normal/flash boot selection modes this pin must be low



Pull-Up Flash pin with button  
For flashing this pin must be low



Pull-Up Flash pin with button  
Reset is Active low



ESP8266 "Bare minimum" connection for booting and flashing (resistors, buttons and ftdi connection pins included)

Remote Relay Switches  
<https://github.com/Grehasopt/Electra>

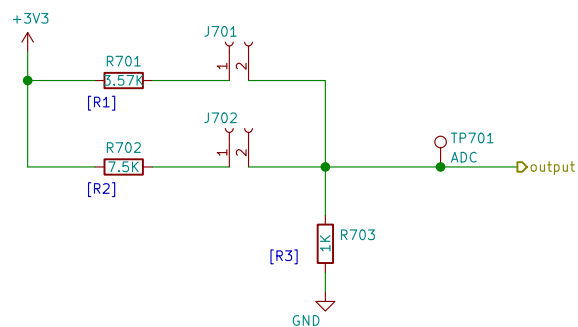
**Grehasopt**

Sheet: /ESP8266/  
File: ESP8266.sch

**Title: Electra Project**

Size: A4 Date: 2021-03-21  
KiCad E.D.A. kicad 5.1.9-73d0e3b20d88ubuntu18.04.1

Rev: 1  
Id: 6/7



- \* Condition A (Pressed Button 1): Say  $R1/R3=n1 \Rightarrow Vo1 = 3.3/(n1+1)$
- \* Condition B (Pressed Button 2): Say  $R2/R3=n2 \Rightarrow Vo2 = 3.3/(n2+1)$

\* Condition C (Both buttons pressed!  $Vo$  MUST be less than 1V!):  
 So .. if  $K=(n1*n2)/(n1+n2)$  [parallel connection] then:  
 $Vo = 3.3/(K+1)$

Based on that, for  $R3 = 1K$ ,  $R1 = 7.5R3$  and  $R2=3.5R3$   
 $Vo1 \sim= 0.39V$   
 $Vo2 \sim= 0.73V$   
 $Vo \sim= 0.97V$

Use ADC with voltage divider trick to add extra two input button. If you change values of these resistors you are able to still use it as an analog pin.

Remote Relay Switches  
<https://github.com/Grehasopt/Electra>

**Grehasopt**

Sheet: /ADC-logic/  
 File: ADC-logic.sch

**Title: Electra Project**

Size: A4 Date: 2021-03-21  
 KiCad E.D.A. kicad 5.1.9-73d0e3b20d88ubuntu18.04.1

**Rev: 1**  
 Id: 7/7