

| Title | | |
|-------|-----------------------|-----------|
| Size | Number | Revision |
| A4 | | |
| Date: | 2019-11-17 | Sheet of |
| File: | SmartSwitch P1.SchDoc | Drawn By: |

SmartSwitch V1
Jonathan Lin 11/02/2019

NodeMCU 1.0

D0

USB

Vin

5V_LINEAR

U1

C2

F2

V_IN

5V_RECT

DC

F1

5V

D1

D2

R4 R5

Q2

PS1

Q1

R1 R2

R3

R6

VD1

VD2

RL

AC/N

AC/L

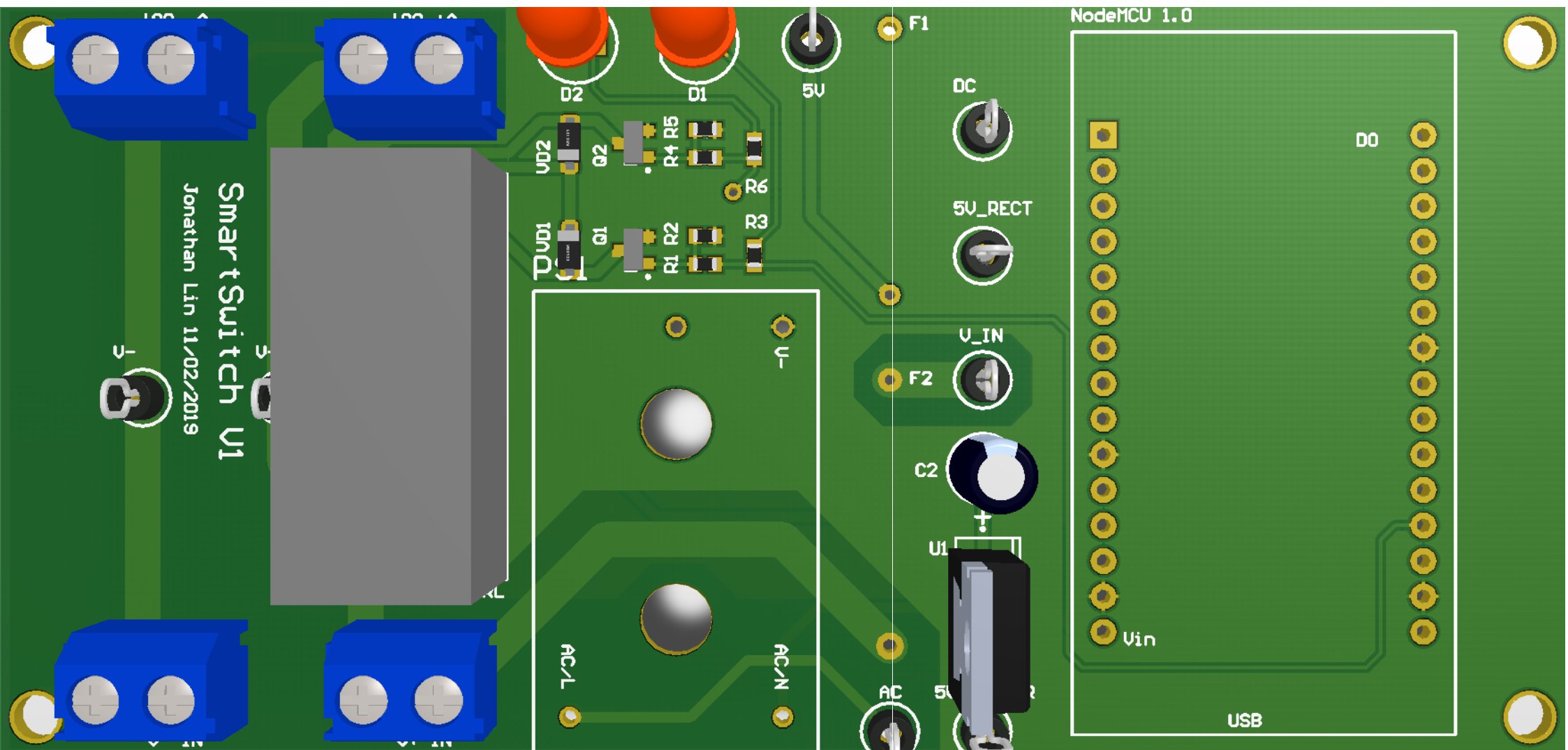
AC

V+ IN

V- IN

V+ IN

V- IN



| Comment | Description | Designator | Manufacturer Part Number | Quantity |
|--------------------------|--|------------------------------|--------------------------|----------|
| 10uF | Cap, Alu Elec, 1uf, 50v, Rad | C2 | ESK105M050AC3A A | 1 |
| RESET | LED Uni-Color Red 645nm 2-Pin T-1 3/4 | D1 | HLMP-D150 | 1 |
| SET | LED Uni-Color Red 645nm 2-Pin T-1 3/4 | D2 | HLMP-D150 | 1 |
| 3JQ 500-R | Fuse Subminiature Fast Acting 0.5A 350V Axial 5 X 15mm Glass CE/CSA/UL/cULus | F1 | 3JQ 500-R | 1 |
| 3JQ 1-R | Fuse Subminiature Fast Acting 1A 350V Axial 5 X 15mm Glass CE/CSA/PSE/UL/cULus | F2 | 3JQ 1-R | 1 |
| NodeMCU 1.0 | Nodemcu V2 Lua Based ESP8266 Dev | NodeMCU 1.0 | 113990105 | 1 |
| IRM-01-5 | AC/DC CONVERTER 5V 1W | PS1 | | 1 |
| DMN65D87 | Trans MOSFET N-CH 60V 0.31A Automotive 3-Pin SOT-23 T/R | Q1, Q2 | | 2 |
| 330 | Precision resistor, SMD [Panasonic Automotive & Industrial Systems] ERJ3EKF3300V Precision resistor, SMD | R1, R3, R4, R6 | | 4 |
| 10k | Resistor Thick Film 0603 10k Ohm 1% 1/10 Watt ± 100ppm °C Surface Mount Punched Carrier Tape and Reel | R2, R5 | ERJ-3EKF1002V | 2 |
| G5RL-K1-E-DC5 | General Purpose Relay, G5rl-K Series, Power, Latching Dual Coil, Spdt, 5 Vdc, 16 A | RL | G5RL-K1-E-DC5 | 1 |
| LM7805CV | Linear voltage regulator [ST micro] LM7805CV Linear voltage regulator 2A THT | U1 | | 1 |
| TE Connectivity 796949-2 | Connector Terminal Blocks 2 Position 5.08mm Solder Straight Thru-Hole 17.5A/Contact | V+ IN, V+ OUT, V- IN, V- OUT | | 4 |
| 1N4148 | Diode: switching; S | VD1, VD2 | 1N4148W | 2 |
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