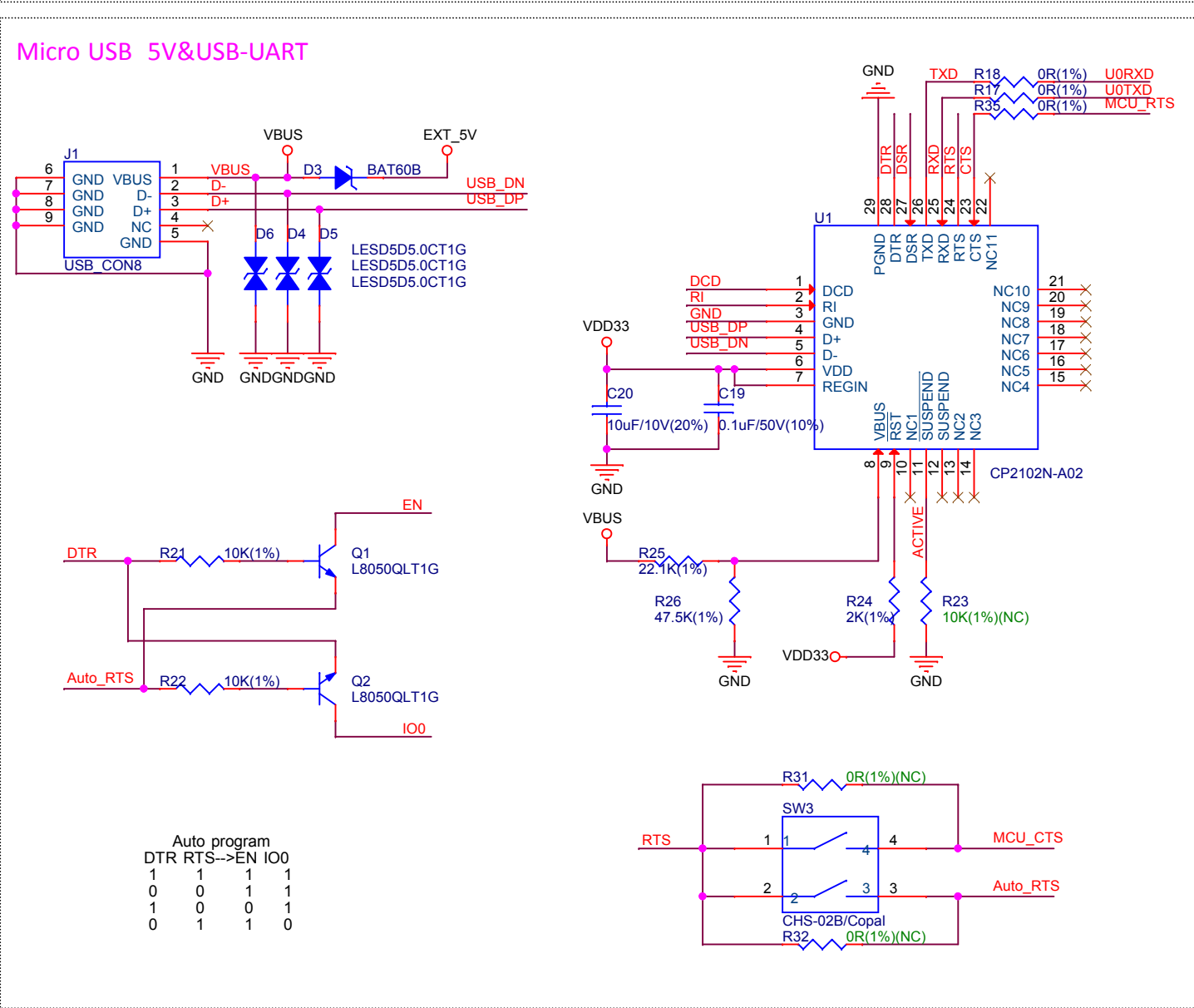


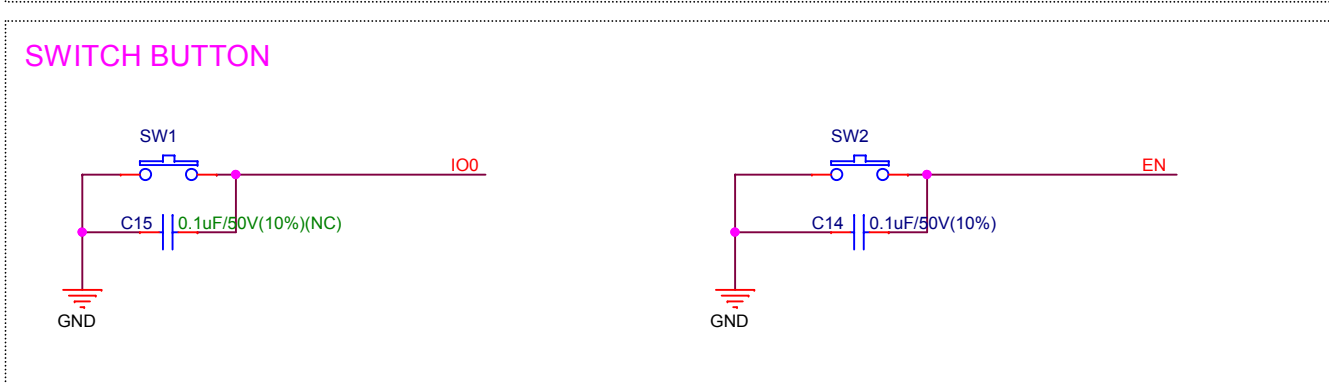
## Power Supply

The diagram illustrates a power supply circuit for a microcontroller. It features an AMS1117 3.3V voltage regulator (U2). The input side includes a 2K resistor (R2) and a 22uF/10V capacitor (C1) connected to the VIN pin. A red LED (D1) is connected between the input line and ground. The regulator's GND/ADJ pin is connected to ground. The output side includes a 22uF/10V capacitor (C3) connected between the P\_VOUT/VOUT pin and ground. The output voltage is labeled VDD3.3.



The schematic diagram illustrates the ESP-WROOM-02D module and its connections. The main component is U3 (CON-SPR-18), which is connected to various pins and components. The connections are as follows:

- Power Supply:** VDD33 is connected to pin 1 (EN) and pin 2 (IO14). GND is connected to pins 3 (EN), 4 (IO14), 5 (IO12), 6 (IO13), 7 (IO15), 8 (IO2), 9 (IO0), 10 (GND1), 11 (TXD), 12 (RXD), 13 (IO4), 14 (GND2), 15 (TOUT), 16 (IO16), 17 (GND3), 18 (IO16).
- Control Signals:** EN is connected to pin 1. IO14 is connected to pin 2. IO12 is connected to pin 4. IO13 is connected to pin 5 (MCU\_CTS). IO15 is connected to pin 6 (MCU\_RTS). IO2 is connected to pin 7. IO0 is connected to pin 8.
- Data Signals:** IO16 is connected to pin 17. TOUT is connected to pin 15. RST is connected to pin 14. IO5 is connected to pin 13. U0TXD is connected to pin 12. U0RXD is connected to pin 11. IO4 is connected to pin 10.
- Peripheral Components:**
  - Capacitors C21 (22uF/10V(20%)) and C22 (0.1uF/50V(10%)) are connected between VDD33 and GND.
  - Resistor R11 (10K(1%)) is connected between VDD33 and EN.
  - Resistor R28 (10K(1%)(NC)) is connected between VDD33 and RST.
  - Capacitor C9 (0.1uF/50V(10%)) is connected between EN and GND.
  - Capacitor C4 (0.1uF/16V(10%)(NC)) is connected between RST and GND.
  - Resistor R33 (10K(1%)(NC)) and R34 (10K(1%)(NC)) are connected between VDD33 and IO0 and IO2, respectively.
  - Resistor R30 (10K(1%)) is connected between IO15 and GND.
  - Resistor R29 (220K(1%)) and R12 (82K(1%)) are connected between TOUT\_EX and TOUT, and TOUT and GND, respectively.



## Connector

The diagram shows two 15-pin connectors, J2 and J3, with their pin assignments and connections to ground.

**J2 (CON15X1\_2P54):**

- Pin 1: 1
- Pin 2: 2
- Pin 3: VDD33
- Pin 4: EN
- Pin 5: 5
- Pin 6: IO14
- Pin 7: IO12
- Pin 8: IO13
- Pin 9: IO15
- Pin 10: IO2
- Pin 11: IO0
- Pin 12: 12
- Pin 13: EXT\_5V
- Pin 14: 14
- Pin 15: 15

**J3 (CON15X1\_2P54):**

- Pin 1: 1
- Pin 2: IO16
- Pin 3: 3
- Pin 4: U0TXD
- Pin 5: U0RXD
- Pin 6: 6
- Pin 7: IO4
- Pin 8: RST
- Pin 9: IO5
- Pin 10: TOUT\_EX
- Pin 11: 11
- Pin 12: 12
- Pin 13: 13
- Pin 14: 14
- Pin 15: 15

