

ESP32-C3-wroom-02

USB to UART programmer

The diagram shows a circuit for a USB to UART programmer. It consists of two NPN transistors, Q1 and Q2, both labeled MMBT2222A. The emitters of both transistors are connected to a common ground line labeled 'EN'. The collector of Q1 is connected to pin 1 of a 2-pin header, and the collector of Q2 is connected to pin 2. The base of Q1 is connected to the DTR signal line through a 10k resistor (R10). The base of Q2 is connected to the RTS signal line through a 10k resistor (R11). The DTR and RTS lines are shown as green traces entering from the left. The output pins 1 and 2 are shown as red traces exiting to the right.

DTR	RTS	-->	EN	IOO
1	1	1	1	
0	0	1	1	
1	0	0	1	
0	1	1	0	

The diagram illustrates the pin connections for two connectors, J1 and J2, which are part of a USB-to-UART bridge circuit. The connectors are labeled J1 (Conn_01x15_Pin) and J2 (Conn_01x15_Pin).

J1 (Conn_01x15_Pin) Connections:


- Pin 1: Connected to GND.
- Pin 2: Connected to +3V3.
- Pin 3: Connected to EN.
- Pin 4: Connected to EN.
- Pin 5: Connected to EN.
- Pin 6: Connected to 104.
- Pin 7: Connected to 105.
- Pin 8: Connected to 106.
- Pin 9: Connected to 107.
- Pin 10: Connected to 108.
- Pin 11: Connected to 108.
- Pin 12: Connected to 109.
- Pin 13: Connected to +5V.
- Pin 14: Connected to +5V.
- Pin 15: Connected to GND.

J2 (Conn_01x15_Pin) Connections:

- Pin 1: Connected to GND.
- Pin 2: Connected to 100.
- Pin 3: Connected to 101.
- Pin 4: Connected to 102.
- Pin 5: Connected to 103.
- Pin 6: Connected to 1010.
- Pin 7: Connected to 1010.
- Pin 8: Connected to 1010.
- Pin 9: Connected to U0RXD.
- Pin 10: Connected to U0TXD.
- Pin 11: Connected to 018.
- Pin 12: Connected to 018.
- Pin 13: Connected to 019.
- Pin 14: Connected to 019.
- Pin 15: Connected to GND.

Reset and Boot buttons

Programmable LED



IO8

R12
22k

D4
LED

GND

Voltage Regulator

The diagram illustrates a voltage regulator circuit. It features a 5V input connected to the VI pin of the AMS1117-3.3 regulator (U4). A 2k resistor (R2) and a 22uF capacitor (C10) are connected in parallel between the input and ground. An LED (D5) is connected in series with the input. The V0 pin of the regulator is connected to the 3V3 output, which is also connected to a 22uF capacitor (C9) to ground. The GND pin of the regulator is connected to the common ground.