

The diagram illustrates a USB to UART converter circuit. A USB connector (CN1) provides VCC, D-, D+, ID, and GND pins. The D+ and D- lines are connected to the TXD and RXD pins of the CH340G chip (U2), respectively. The VCC pin of the chip is connected to a +5V supply through a 0.1μF capacitor (C5). The GND pin of the chip is connected to ground through a 0.1μF capacitor (C6). The TXD pin is also connected to a PC-TX pin through a 0.1μF capacitor (C8). The RXD pin is connected to a PC-RX pin through a 0.1μF capacitor (C7). The DTR pin of the chip is connected to a DTR output pin through a 1μF capacitor (C9). The ID pin of the USB connector is connected to ground.

3.3V VOLTAGE REGULATOR

The diagram illustrates the wiring for four female headers (JP1, JP2, JP3, JP4) connected to various components and power supplies.

- JP1:**
 - Pin 1: IOREF
 - Pin 2: RESET
 - Pin 3: 3.3V
 - Pin 4: 5V
 - Pin 5: GND
 - Pin 6: VIN
 - Pin 7: GND
 - Pin 8: VIN
- JP2:**
 - Pin 1: A0
 - Pin 2: A1
 - Pin 3: A2
 - Pin 4: A3
 - Pin 5: A4
 - Pin 6: A5
- JP3:**
 - Pin 1: A5
 - Pin 2: A4
 - Pin 3: AREF
 - Pin 4: GND
 - Pin 5: D13
 - Pin 6: D12
 - Pin 7: D11
 - Pin 8: D10
 - Pin 9: D9
 - Pin 10: D8
- JP4:**
 - Pin 1: D7
 - Pin 2: D6
 - Pin 3: D5
 - Pin 4: D4
 - Pin 5: D3
 - Pin 6: D2
 - Pin 7: D1(TX)
 - Pin 8: D0(RX)

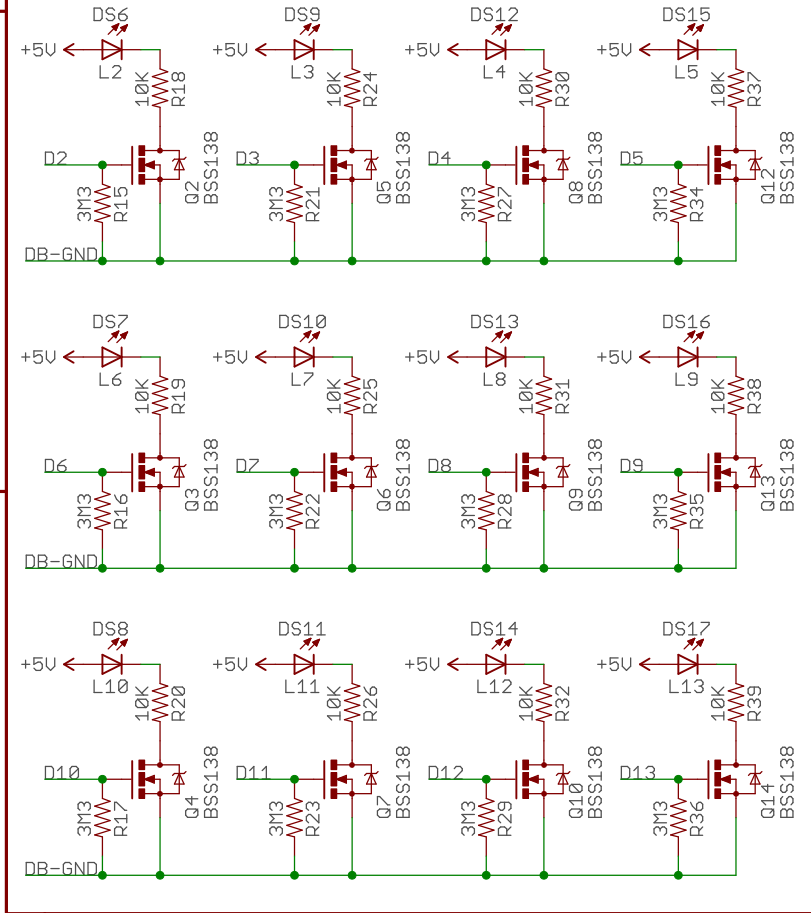
Power supplies and components connected to the headers:

- JP1:** Connected to +5V, +3V3, and a 15MQ40N MOSFET (D1).
- JP2:** Connected to 3V, a 1K resistor (R1), and a DS1 MOSFET.
- JP3:** Connected to +5V, a 1K resistor (R2), and a DS2 MOSFET.
- JP4:** Connected to +5V, a 1K resistor (R3), and a DS3 MOSFET.

POWER BANK KEEP-ALIVE LOAD

[illegible]

The diagram shows two push buttons, S1 and S2, connected to a microcontroller. Button S1 is labeled 'RESET' and button S2 is labeled 'BUTTON'. Both buttons have one terminal connected to ground (GND) and the other terminal connected to a microcontroller pin. Pin RST is connected to S1 and has a pull-up resistor R13 (10K) to +5V. Pin DTR is connected to S2 and has a pull-up resistor R10 (1K) to +5V. There is also a capacitor C14 (0.1uF) connected to DTR.



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