

1) Minimum 'UNO' + FTDI

Note: to build this separately on a breadboard, connect all instances of 'VCC' with 'VIN' in this sub-schematic.

The schematic shows the ATmega328P-PU microcontroller connected to the FTDI module. The connections are as follows:

- VCC (5V) is connected to RESET/PC6, RXD (TX0), TXD (TX0), GND, XTAL1/PB6, XTAL2/PB7, PD5, PD6, PD7, PB0, PB5, PB4, PB3, PB2, and PB1.
- A 10K resistor (R1) is connected between VCC and RESET/PC6.
- A 0.1uF capacitor (C1) is connected between VCC and GND.
- A crystal (Y1) is connected between XTAL1/PB6 and XTAL2/PB7.
- A 0.1uF capacitor (C3) is connected between VCC and GND.

The FTDI module is labeled FTDI1.

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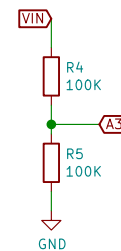
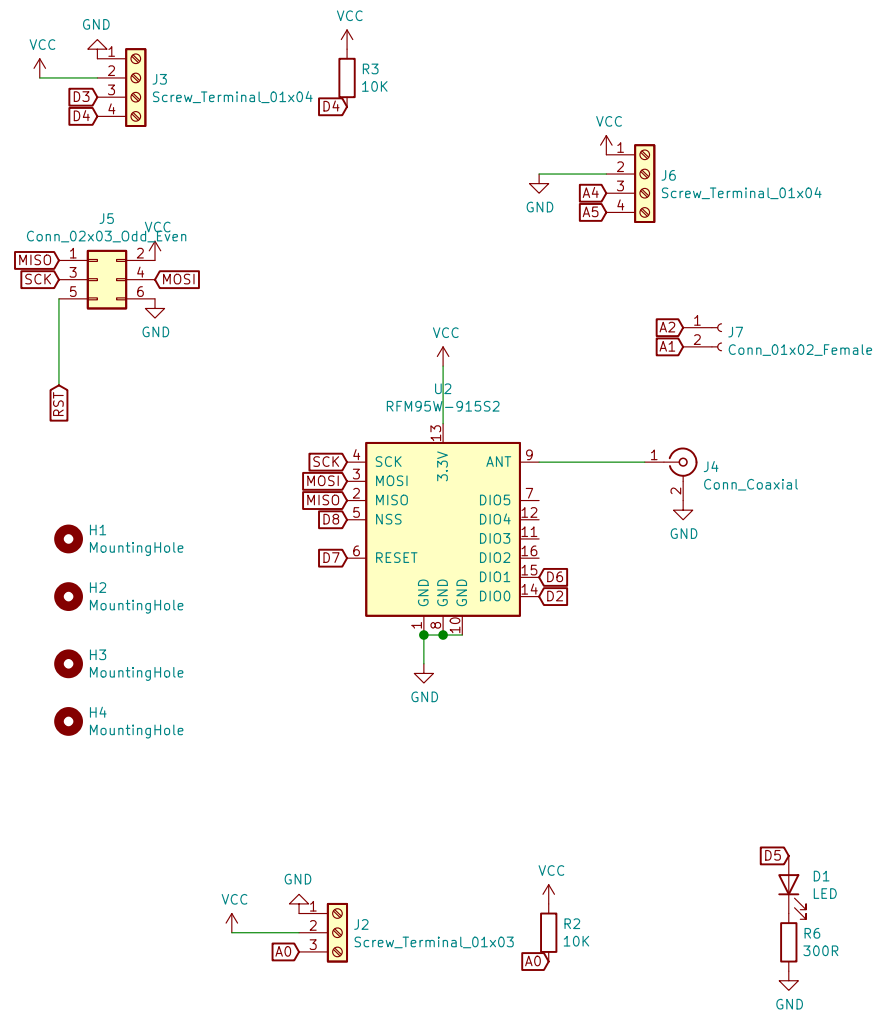
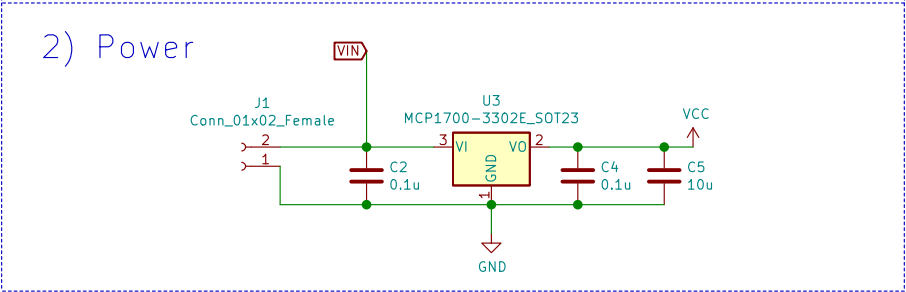
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- A 0.1uF capacitor (C3) is connected between VCC and GND.

The FTDI module is labeled 'FTDI1'.

2) Power

The diagram illustrates the power supply circuit for the MCP1700-3302E-S0T23 voltage regulator. The input voltage (VIN) is connected to the V1 pin. A 0.1uF capacitor (C2) is connected between V1 and GND. The output of the regulator (V0) is connected to the VCC pin, which is also connected to a 0.1uF capacitor (C4) and a 10uF capacitor (C5) connected to GND. A connector J1 (Conn_01x02_Female) is shown with pins 1 and 2. Pin 2 is connected to V1, and pin 1 is connected to GND.



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