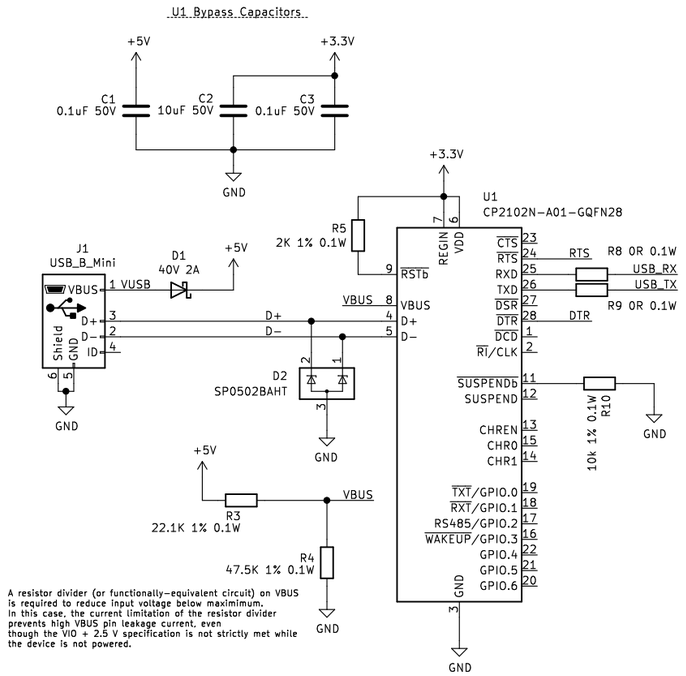
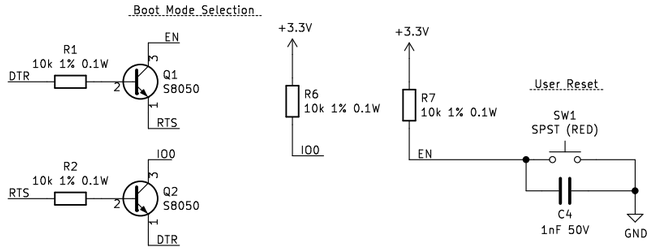
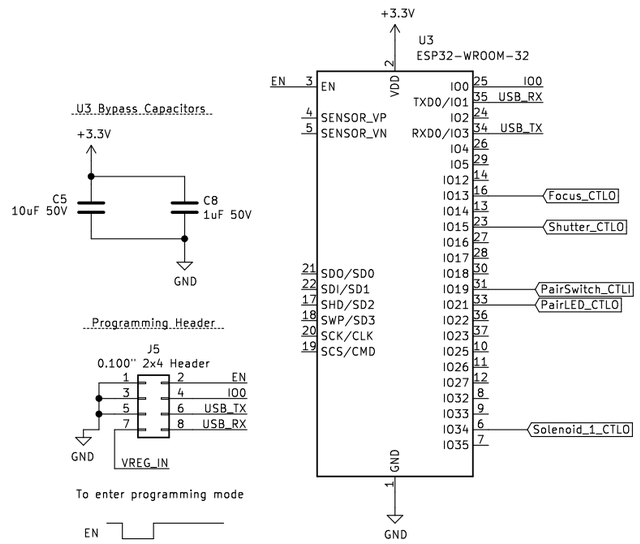
USB to UART





MCU



NOTES

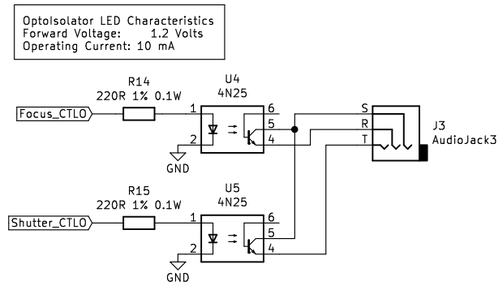
- Theoretical Maximum Power for Solenoid
  - Lowest current rating is for flyback diode, which could see spikes of current equal to the operating current of the coil. 5A at 12V provides maximum of 60 Watts. Typical 12v solenoid is 6.5 Watts.
  - Plan for testing inductive load at 50 Watts for 20% safety margin.
  - Through Hole diodes rated at 100V 20A are available, at marginal incrase in cost.
- Camera Connection
  - Most DSLR cameras have a 2.5mm TRS port on the camera body to allow remote Shutter and Focus control. Different models might have Shutter and Focus switched, so software might require switching pin function.
- USB to UART
  - Testing USB to UART chip as found on ESP32 Dev Kit to allow for automatic programing with the Arduino IDE. If that fails, back up programming header can be used, with jumpers to implement boot selection

ERRATA

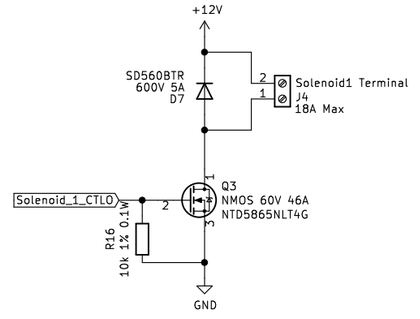
REV A01

D7 must be mounted in reverse. Fixed in Rev A02.

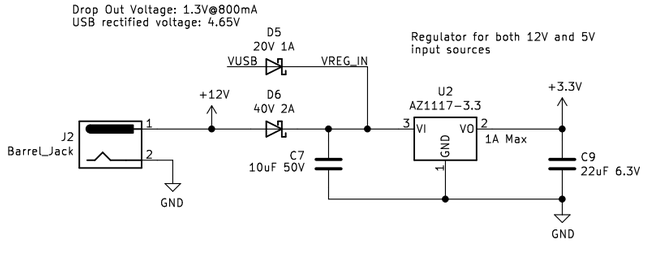
Camera I/O



Solenoid Control



Power Input



ESP32MiniDrop		
Size: A3	Date: 2020-08-24	**Rev: A02**
KiCad E.D.A. eeschema (5.1.6)-1		