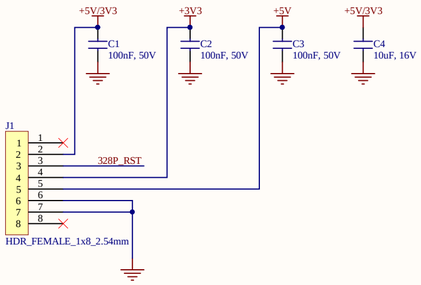
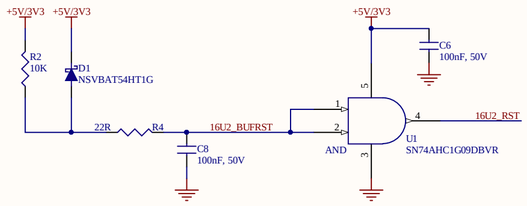
28PINS BOARD

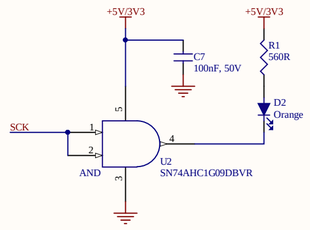
POWER



16U2 RESET



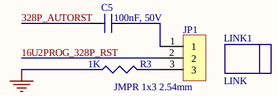
USER LED



JP1 CONFIGURATIONS:
Jumper on pins 1 & 2 - Enables the ATMEGA16U2 to auto-reset the ATMEGA328P when uploading code from
the Arduino IDE.

Jumper on pins 2 & 3 - Enables DFU mode on the ATMEGA16U2 for firmware updates via USB.
During RESET,
the HWB pin is sampled on the rising edge of RESET and, if pulled low, will put the chip in DFU mode.

JP1

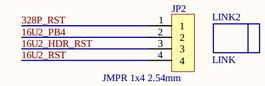


JP2 CONFIGURATIONS:
Jumper on pins 1 & 2 - Enables the ATMEGA16U2 to behave as a DebugWIRE tool
to debug the ATMEGA328P. The correct firmware must be installed on the 16U2 chip
for this to work.

Jumper on pins 2 & 3 - Enables the use of the ATMEGA16U2 as an ISP programmer for the ATMEGA328P.
As with the DebugWire configuration, the correct firmware(AVRISP MKII) must be uploaded to the 16U2 chip.
Connect 'ICSP 16U2' directly to 'ICSP 328P' once this is set up in order to serially program the 328P.

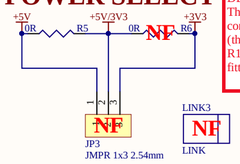
Jumper on pins 3 & 4 - ICSP 16U2 will behave as aregular serial programming interface
to the ATMEGA16U2.

JP2

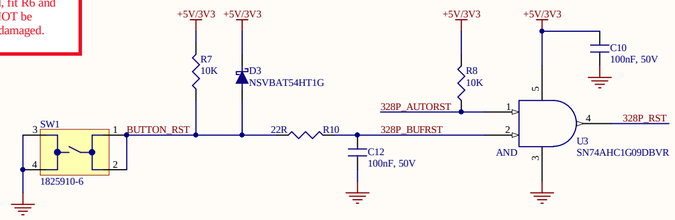


POWER SELECT

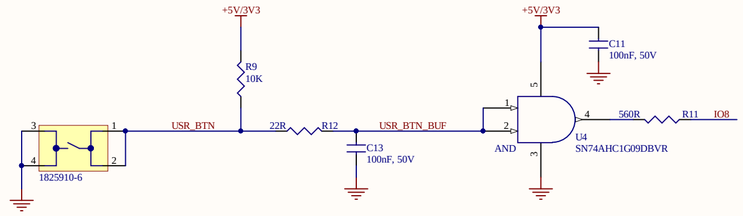
DESIGN NOTE:
This board can be powered from micro USB connector (J7) or a single +3.3V power rail (through J1 pin 4). If +3.3V is used, fit R6 and R18. In this case, JP3 & R5 must NOT be fitted, otherwise the board may be damaged.



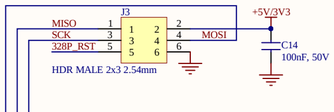
328P RESET



USER BUTTON

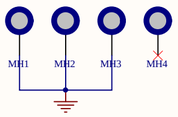


ICSP 328P



POWER LED

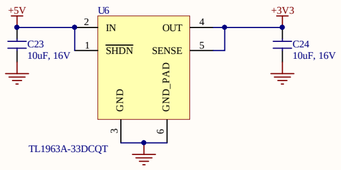
MOUNTING HOLES



POWER PADS

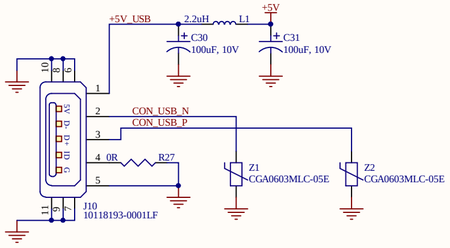
FIDUCIALS

3V3 LDO

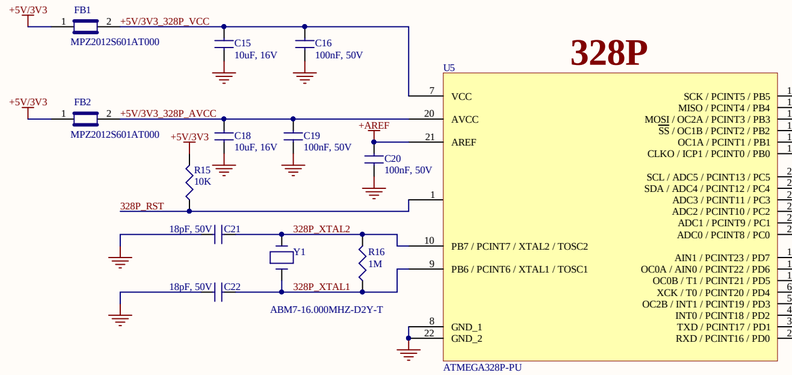


28-DIP SOCKET
SCKT1

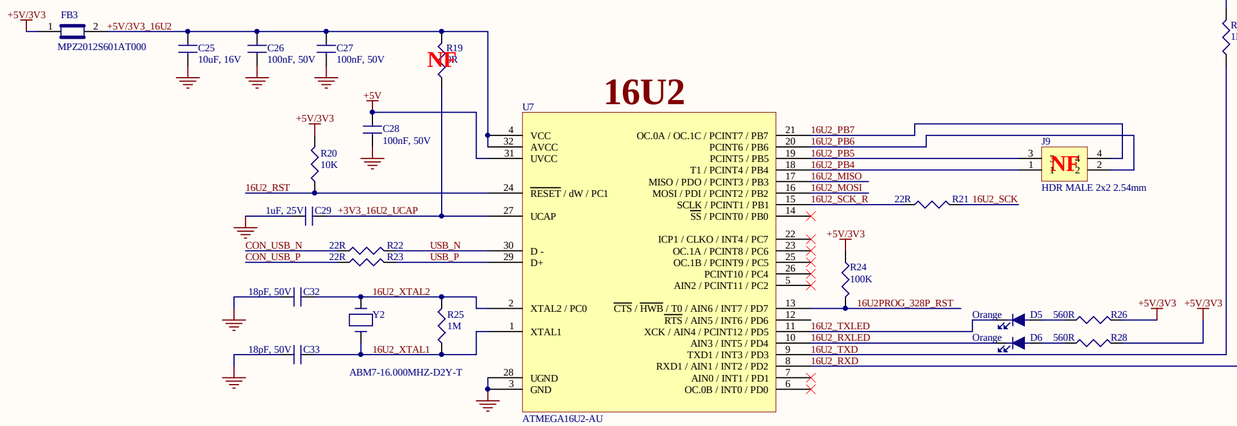
MICRO USB



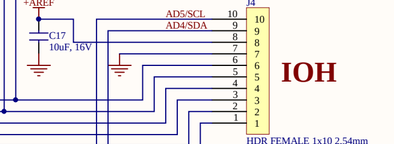
328P



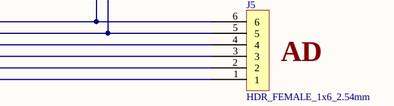
16U2



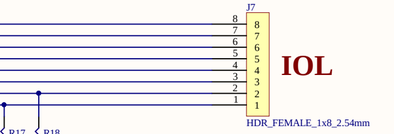
IOH



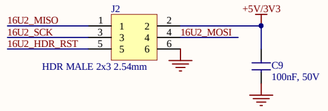
AD



IOL



ICSP 16U2



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Date: 6/16/2020		Sheet 1 of 1
File: C:\Users\..\28Pins Schematic.SchDoc		Drawn By: James Morar