NOTES: (UNLESS OTHERWISE SPECIFIED)

1) RS485 BUS TERMINATION: DO NOT INSTALL J2 (BUS OUT) CONNECTOR AND ADD A 120Ω THRU-HOLE RESISTOR ACROSS PINS 4&5 OF J2(BUS OUT) ON LAST ABSIS ALE OF RS485 BUS.

2) FOR ARDUINO PRO MICRO PROGRAMMING VIA USB: MAY BE PROGRAMMED IN-CIRCUIT.

3) THE RAW POWER PIN ON THE PRO MICRO AND +12V_SUPPLY ARE TIED TOGETHER. IF THE PRO MICRO BOARD IS POWERED VIA USB, THE VOLTAGE AT THIS PIN IS ABOUT 4.8V

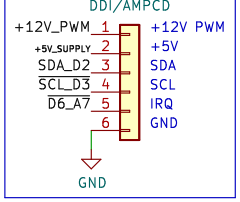
4) THIS PCB IS DESIGNED TO CONTROL BOTH THE DDI AND AMPCD:
   A) FOR CONNECTION TO DDI, CONNECT BRT SW TO J4, CONT TO J5, AND TOP ROTARY TO J6.
   B) FOR CONNECTION TO AMPCD, CONNECT CRS TO J4, HDG TO J5, AND TOP ROTARY TO J7.

5) WARNING: J6 OR J7 MAY ONLY BE USED ONE AT A TIME.

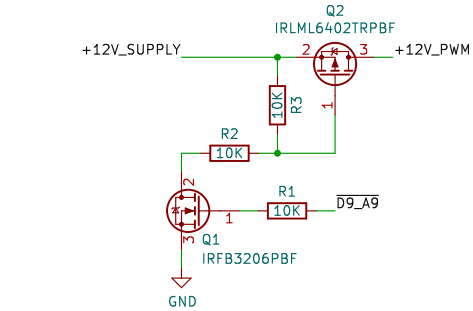
6) IF PCB IS POWERED VIA ABSIS BUS (I.E. PRO-MICRO IS POWERED VIA RAW PIN INSTEAD OF USB) THEN DESOLDER/REMOVE F1 FUSE ON PRO-MICRO AND ENSURE JP1 JUMPER ON PRO-MICRO IS NOT BRIDGED/SOLDERED. FAILURE TO DO SO WILL RESULT IN POWER FROM ON BOARD VOLTAGE REGULATOR BACKFEEDING THE USB POWER LINE.

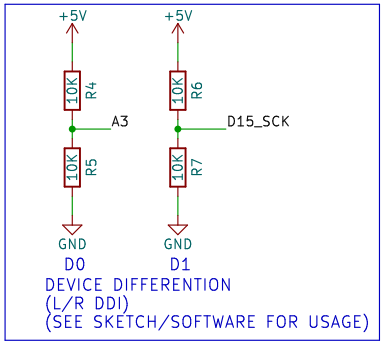
   CAUTION: AFTER THIS MODIFICATION, THE PRO-MICRO CAN ONLY BE POWERED VIA THE RAW PIN. USB POWER WILL NOT BE AVAILABLE TO THE PRO-MICRO.

DDI/AMPCD

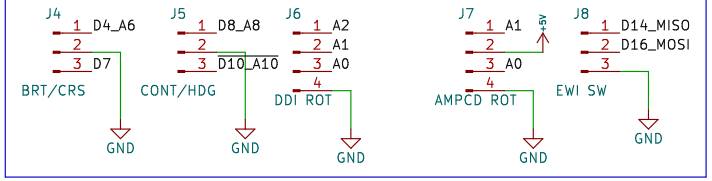


5V PWM -> 12V PWM

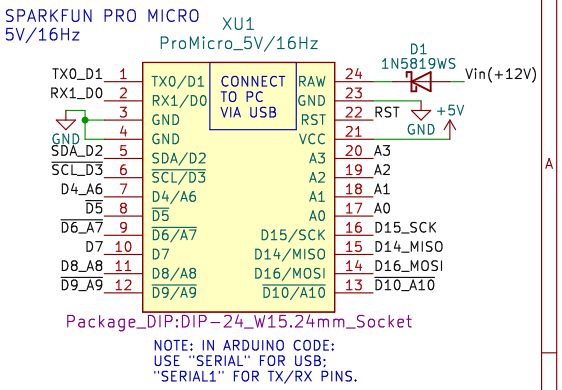




INPUTS



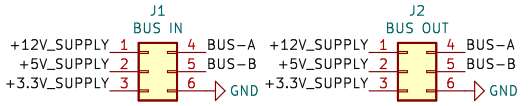
SPARKFUN PRO MICRO 5V/16Hz



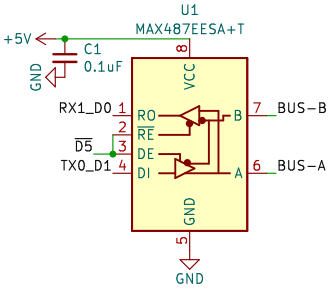
NOTE: IN ARDUINO CODE:
USE "SERIAL" FOR USB;
"SERIAL1" FOR TX/RX PINS.

MOUNTING HOLES	RESET JUMP PAD	PWR FLAGS
	RST1 RST	+12V_SUPPLY Vin(+12V) PWR_FLAG; +5V PWR_FLAG; +3.3V PWR_FLAG; GND PWR_FLAG

ABSIS BUS CONNECTORS



RS485 BUS CONTROLLER



LOGOS/SILKSCREENS

OH LOGO SMALL OH LOGO SMALL

H1 MountingHole H2 MountingHole H3 MountingHole H4 MountingHole

OpenHornet

Sheet: /

File: CONTROLLER_AMPCD DDI.kicad_sch

Title: DDI/AMPCD CONTROLLER

Size: A	Date: 2022-11-05	**Rev: 4**
KiCad E.D.A. eeschema 7.0.8		Id: 1/1