

NOTES:

1. THIS SCHEMATIC REFERENCES PCB VERSION: J

CHANGE LOG:

REV J05:

1. RESISTORS R48 AND R49 CHANGED TO DNI.

REV J04:

- 1. COMPONENTS C65, R51, U8 CHANGED TO DNI.
- 2. RESISTOR R50 NOW LOADED (PREVIOUSLY DNI) WITH 0 OHM 0603 PART.

REV J03:

- 1. CAPACITORS C16, C17, C18, C21, C22, C24, C27, C51, C52, C53, C54, C61 CHANGED TO 1UF 0603 50V PART.
- 2. CAPACITORS C20, C23, C55, C56 CHANGED TO 4.7UF 1206 50V PART.
- 3. COMPONENTS C48, R32 CHANGED TO DNI.
- 4. RESISTOR R33 NOW LOADED (PREVIOUSLY DNI) WITH 0 OHM 0603 PART.
- 5. RESISTOR R11 CHANGED TO 13 MILLIOHM PART FOR LPS COMPLIANCY.
- 6. FUSE F1 CHANGED TO 5A PART.
- 7. RESISTOR R8 CHANGED TO 2.7 OHM 0603 PART.

REV J02:

- 1. REPLACED R12, R14 with R52, R53

REV J01:

- 1. R13 CHANGED TO 1.21K OHMS
- 2. ADDED R52, R53 PADS AS 0603 0.1W PACKAGE ALTERNATIVES TO R12, R14
- 3. ADDED 3mm CLEARANCE AROUND HEATSINK

REV G01:

- 1. CHANGED DESIGN TO USE TO-220 TRANSISTORS AND HEATSINK FOR Q1 AND Q6.

REV F03:

- 1. R13 CHANGED TO 130 OHMS.

REV F02:

- 1. R13 CHANGED TO 820 OHMS.

REV F:

- 1. ADDED IMPORTANT VIA STITCHING AROUND CAPACITORS.

REV E:

- 1. ADDED GATE DRIVE BUFFERS ZXGD3005E6TA FOR BOOST CONVERTER MOSFETS.
- 2. CHANGED CURRENT SENSE AMPLIFIER IC PART.
- 3. SWAPPED VCHARGE_ADC AND CURRENT_ADC INPUTS.

REV D:

- 1. CHANGED BOARD LAYER COUNT TO 4 FOR INCREASED THERMAL CONDUCTIVITY AND BETTER EMI.
- 2. ALLIGNED BOOST CONVERTER MOSFETS FOR HEATSINK.
- 3. CORRECTED ESD DIODE FOOTPRINTS.
- 4. INCREASED TESTPOINT SIZES TO >=0.8MM.

TORTUGA, DOCK BOARD

Designer: J. BEVIS

Number: CE-00036-SCH

File: Tortuga_J_SCH_1.SchDoc

Revision: J05

Size: Letter

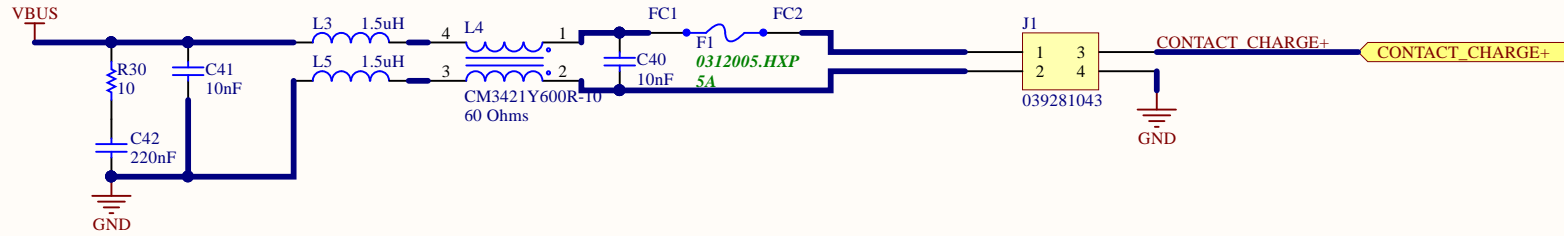
Mayfield Robotics
400 Convention Way
Redwood City, CA, 94063



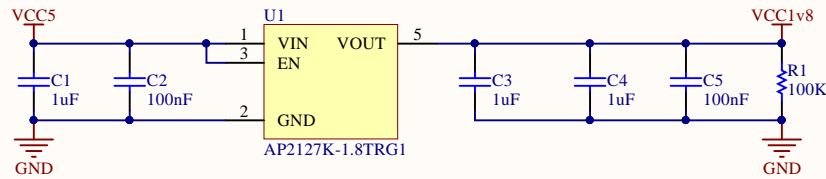
Date: 08-FEB-2018

Sheet 1 of 6

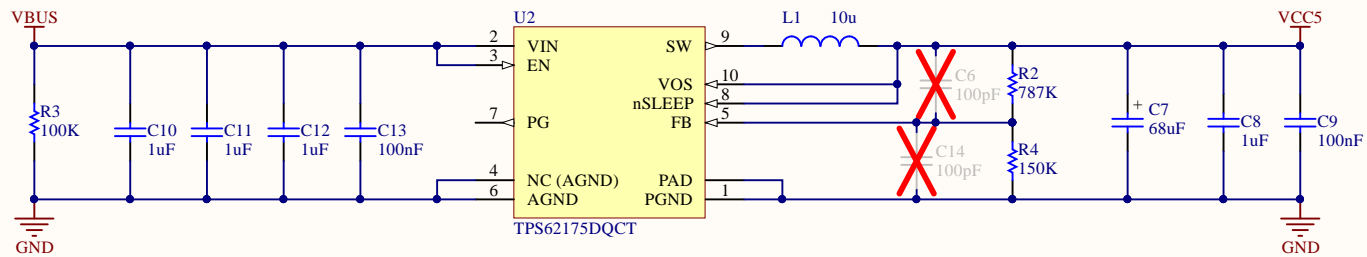
POWER CONNECTOR



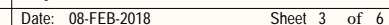
ADC VOLTAGE REFERENCE (+1.8V)



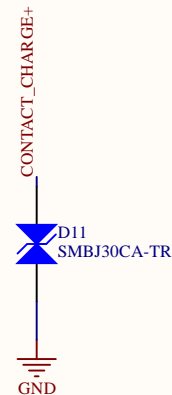
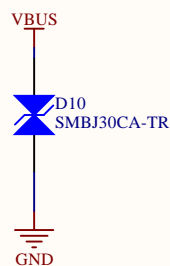
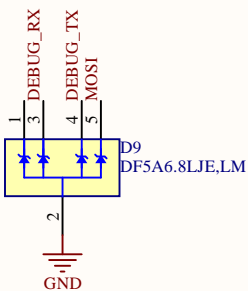
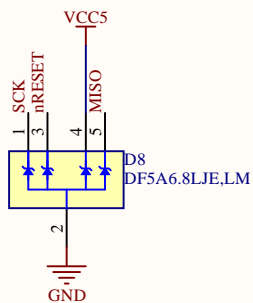
BUCK POWER SUPPLY (+5V)



BOOST POWER SUPPLY (+28V)



TORTUGA, DOCK BOARD		Mayfield Robotics
Number: CE-00036-SCH	Revision: J05	
File: Tortuga_J_SCH_5.SchDoc	Size: Letter	
		Date: 08-FEB-2018
		Sheet 5 of 6



OPTIONAL COOLING FAN

