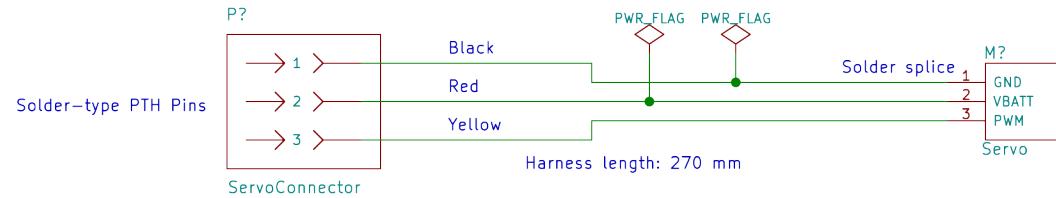
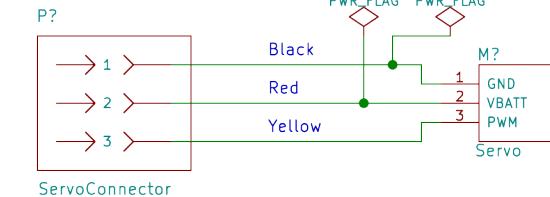


**Connector Housing Detail A (Expanded view of Servo Motor 0 connection):**

 Connector board-side housing: Molex 0705530002  
 Pins: Integrated

 Wiring harness termination housing: Molex 0050579403  
 Sockets: Molex 0016020086

**Turret steering Servo Motor connections:**  
 (Detail A applies)


A

A

B

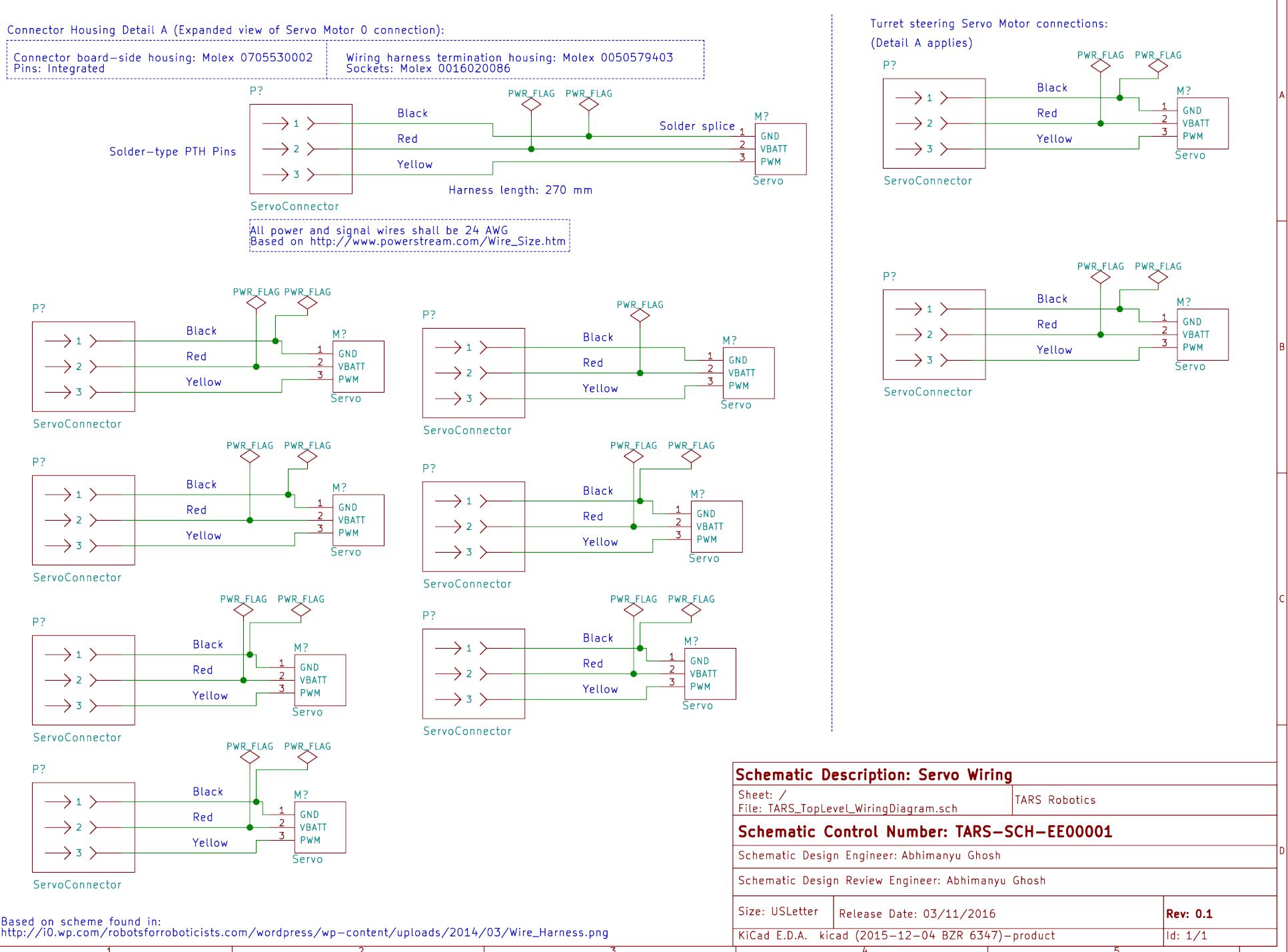
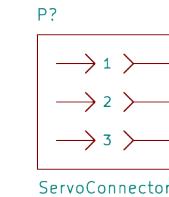
B

C

C

D

D


**Schematic Description: Servo Wiring**

 Sheet: /  
 File: TARS\_TopoLevel\_WiringDiagram.sch | TARS Robotics

**Schematic Control Number: TARS-SCH-EE00001**

Schematic Design Engineer: Abhimanyu Ghosh

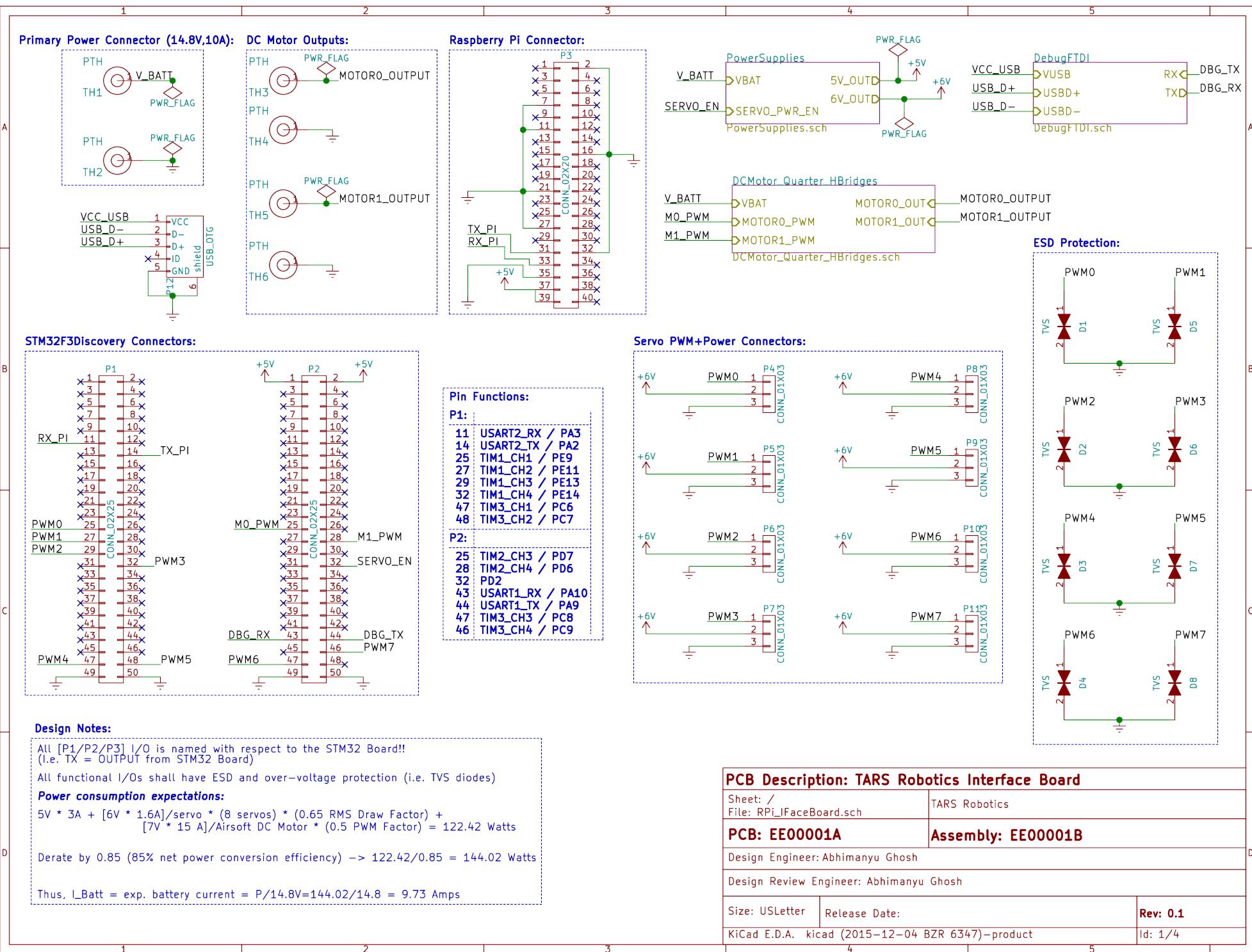
Schematic Design Review Engineer: Abhimanyu Ghosh

Size: USLetter | Release Date: 03/11/2016

KiCad E.D.A. kicad (2015-12-04 BZR 6347)-product

Rev: 0.1

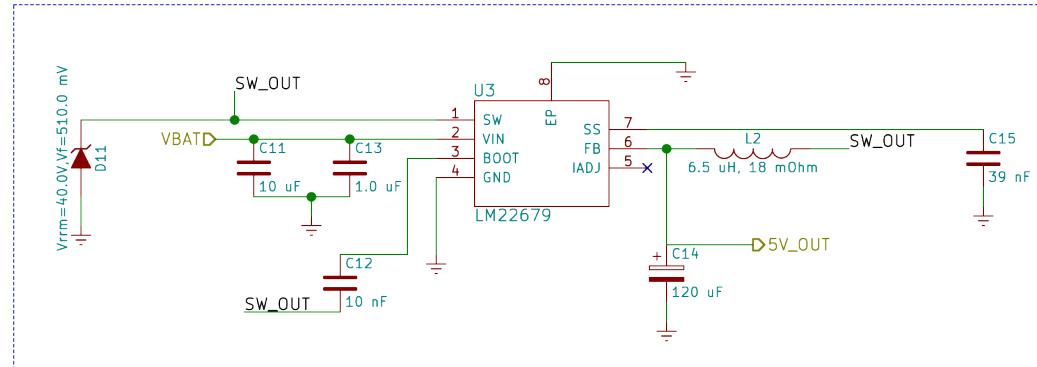
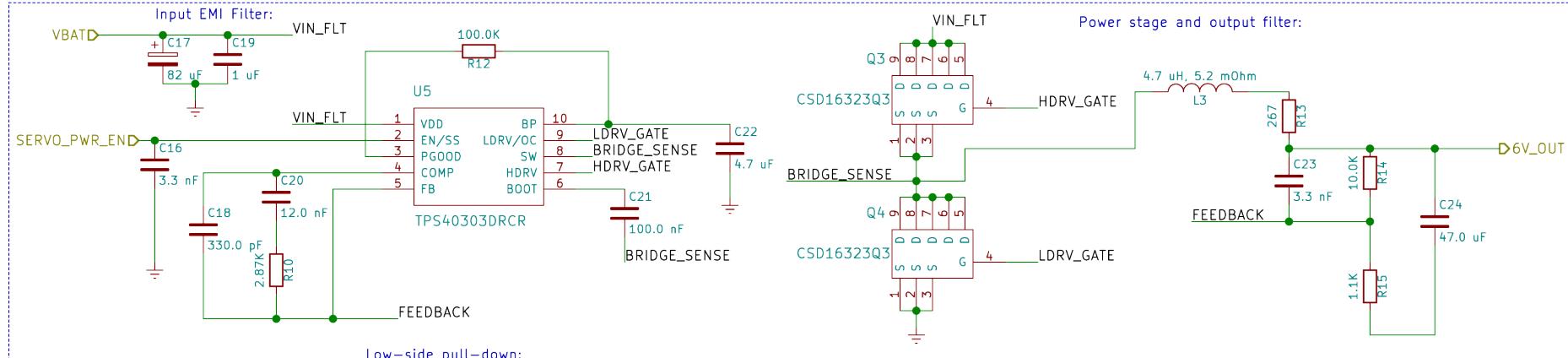
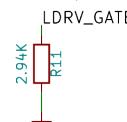
Id: 1/1



1 2 3 4 5

A

A

**5V, 5A Switching Power Supply:****6V, 14A Switching Power Supply:****Low-side pull-down:****PCB Description: TARS Robotics Interface Board**

Sheet: /PowerSupplies/  
File: PowerSupplies.sch

TARS Robotics

PCB: EE00001A

Assembly: EE00001B

Design Engineer: Abhimanyu Ghosh

Design Review Engineer: Abhimanyu Ghosh

Size: USLetter

Release Date:

Rev: 0.1

KiCad E.D.A. kicad (2015-12-04 BZR 6347)-product

Id: 2/4

1 2 3 4 5

A

A

B

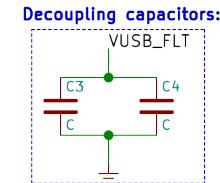
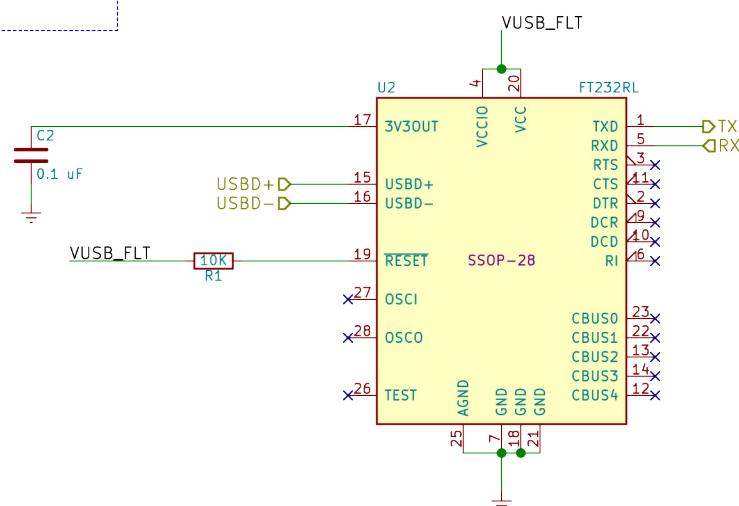
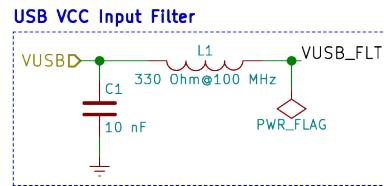
B

C

C

D

D



Layout Note: Place very close to FT232RL IC!!

### PCB Description: TARS Robotics Interface Board

Sheet: /DebugFTDI/  
File: DebugFTDI.sch TARS Robotics

**PCB: EE00001A** **Assembly: EE00001B**

Design Engineer: Abhimanyu Ghosh

Design Review Engineer: Abhimanyu Ghosh

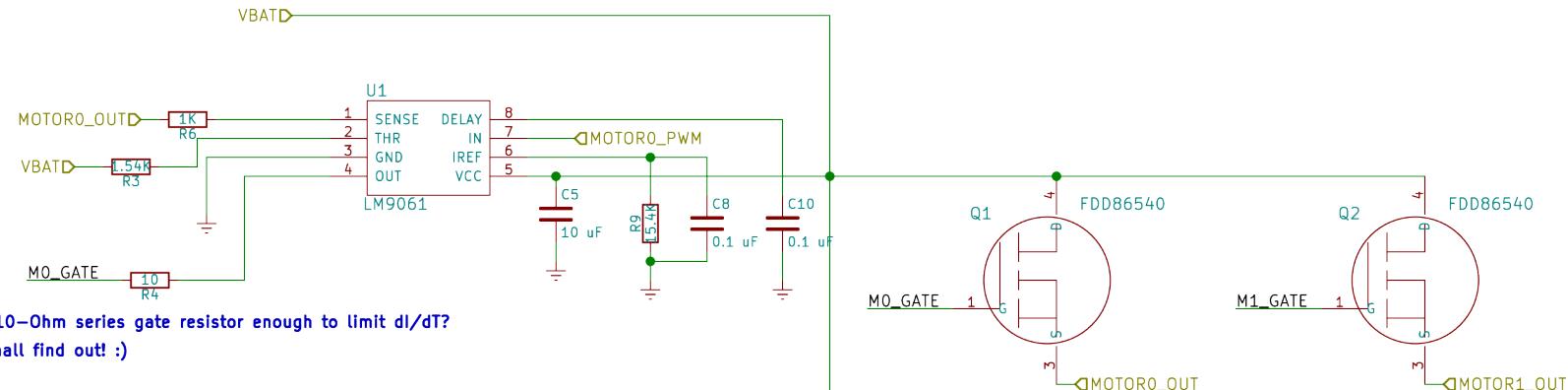
Size: USLetter Release Date: **Rev: 0.1**

KiCad E.D.A. kicad (2015-12-04 BZR 6347)-product

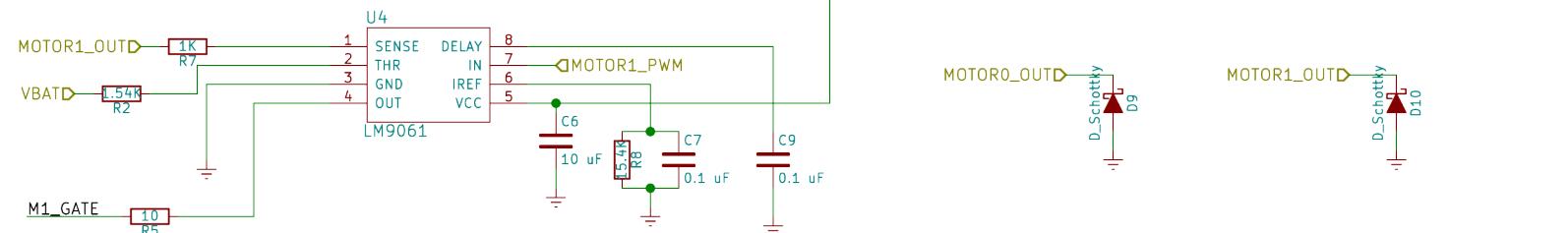
Id: 3/4

A

A



Is a 10-Ohm series gate resistor enough to limit  $di/dt$ ?  
We shall find out! :)



Layout note: Place ALL decoupling capacitors as close to relevant IC as possible. Place Schottky diodes close to motor outputs!!

#### PCB Description: TARS Robotics Interface Board

Sheet: /DCMotor\_Quarter\_HBridges/ | TARS Robotics  
File: DCMotor\_Quarter\_HBridges.sch

**PCB:** EE00001A      **Assembly:** EE00001B

Design Engineer: Abhimanyu Ghosh

Design Review Engineer: Abhimanyu Ghosh

|                |               |          |
|----------------|---------------|----------|
| Size: USLetter | Release Date: | Rev: 0.1 |
|----------------|---------------|----------|

KiCad E.D.A. kicad (2015-12-04 BZR 6347)-product

Id: 4/4

