3D-ROBOTIC MAPPING PLATFORM

CAL STATE LONG BEACH - COMPUTER ENGINEERING

ENGINEER: LIAM GOGLEY
DRAWN BY: LIAM GOGLEY
VERIFIED BY: ROBERT DOMINICK
RELEASED BY:

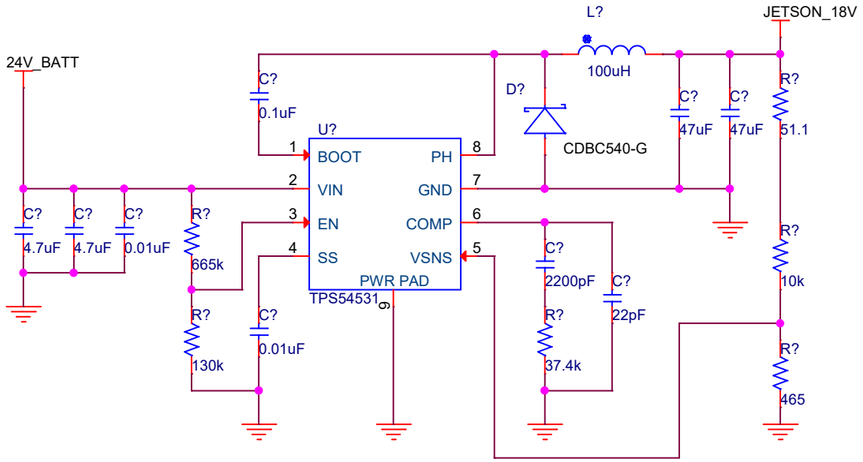
3D-ROMAP Power Supply

SH1 - COVER
SH2 - DIGITAL POWER RAILS
SH3 - MOTOR POWER RAILS

TEAM MEMBERS:

- LIAM GOGLEY
- ROBERT DOMINICK
- MARK MUNOZ
- DANIEL TRAN

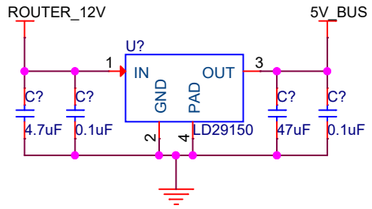
Title: 3D-ROMAP Power Supply		
Size: B	Document Number: 490-PSU	Rev: C
Date: Saturday, July 07, 2018	Sheet 1 of 3	



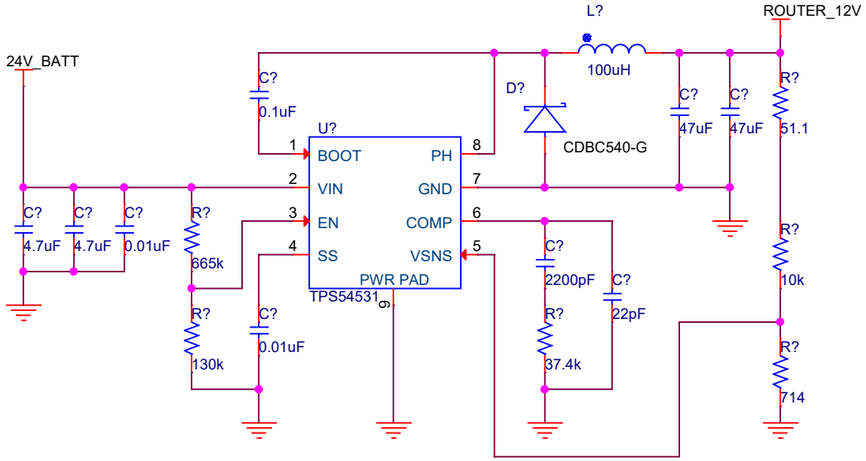
18V Power to Jetson TX1

465 = (10k * 0v8) / (18v - 0v8)

79uH = (18V * (24V - 18V)) / (24V * 0.2 * 0.5A * 570KHz)



5V Power to Tiva C Launchpad VBUS & LiDAR

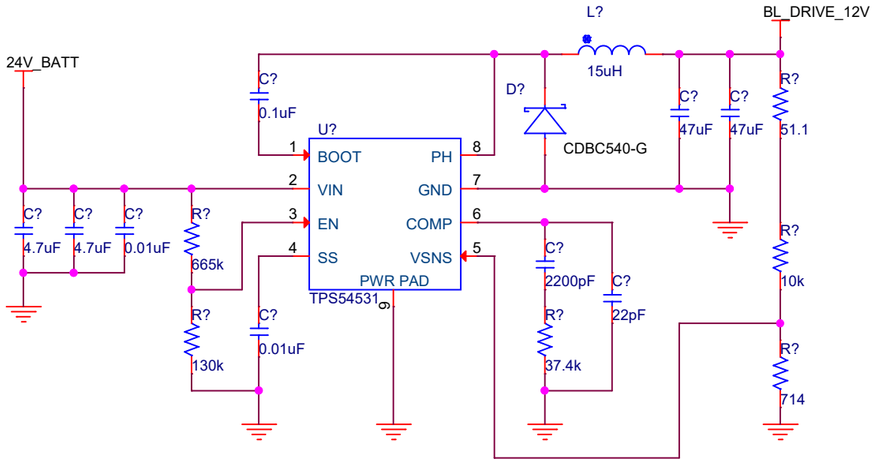


12V Power to WiFi Router

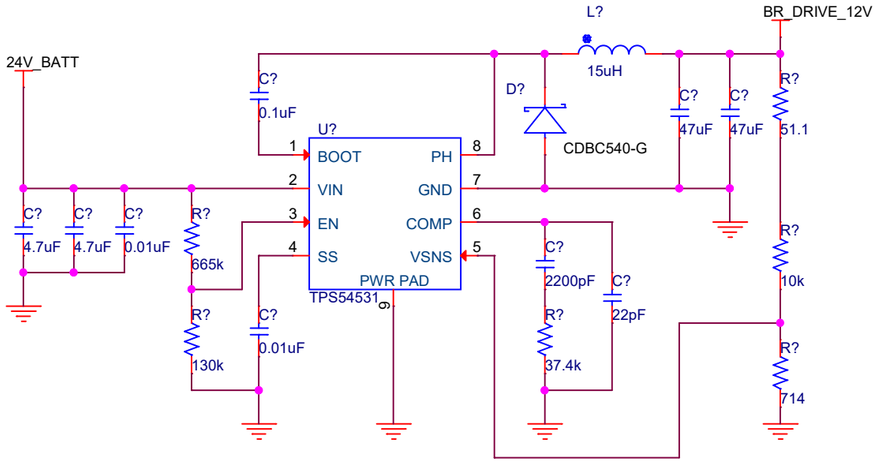
714 = (10k * 0v8) / (12v - 0v8)

88uH = (12V * (24V - 12V)) / (24V * 0.2 * 0.4A * 570KHz)

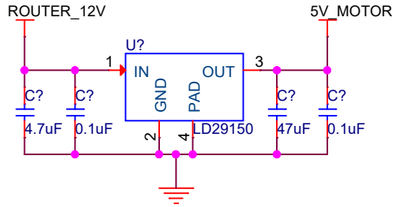
Title: 3D-ROMAP Power Supply		
Size: B	Document Number: 490-PSU	Rev: C
Date: Saturday, July 07, 2018	Sheet 2 of 3	



12V Power to Back Left Drive Motor



12V Power to Back Right Drive Motor



5V Power to LiDAR Stepper Motor

Title	3D-ROMAP Power Supply	
Size B	Document Number 490-PSU	Rev C
Date: Saturday, July 07, 2018	Sheet 3 of 3	