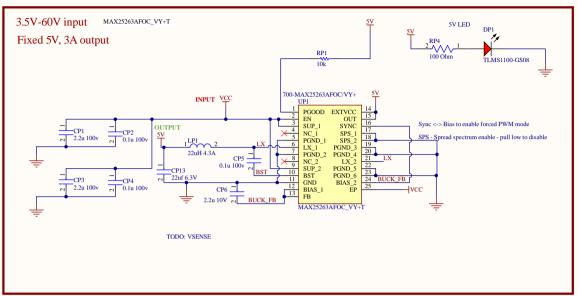
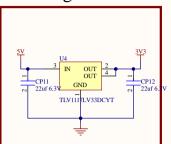
MAXWELL An Open Source, three-phase motor controller for robot actuators Power **MCU Motor Drive FETs** GLA GLB GLC MOTOR\_FAULT CATE\_EN DRIVE\_CAL SPI1\_SCK SPI1\_MOSI SPI1\_MISO SUPPLY SENSE > SUPPLY SENSE Specifications: - Up to 60V input - 70A Continuous current, 150A Peak - PWM, CAN, and USB control - Built in 5V BEC for radio recievers - Sensorless, Sensored and FOC control - Encoder support: - Hall sensors, Rotational encoders, Magnetic encoders (1 built in) Title: Overview Size: A2 Document Number: 1 Revision: 1 Date: 06/09/2023 Sheet 1 **of** 6 File: Overview.SchDoc **ROBOSAM** Drawn By: Sam Scott 2

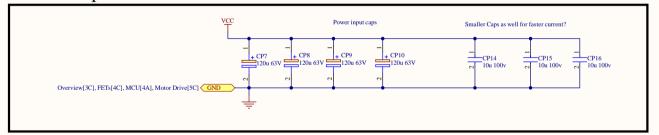
Power (P) **Buck Converter** 



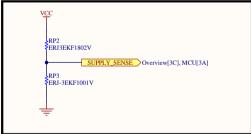
## 3.3V Regulator



## **Power Capacitors**



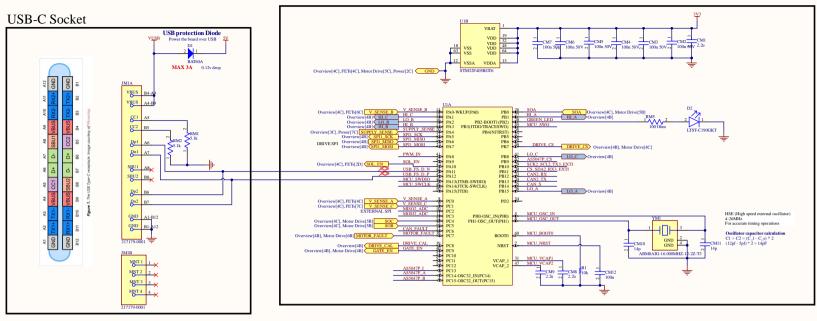
# Supply Sense



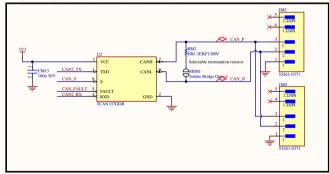
Title: Power Size: A2 Document Number: 2 Revision: 1 Date: 06/09/2023 Sheet \* File: Power.SchDoc ROBOSAM Drawn By: Sam Scott

# [3] MCU - M

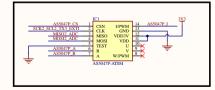
#### STM32F405RGT6 Microcontroller



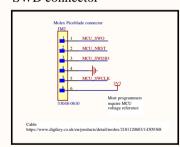
#### CAN Controller and connector



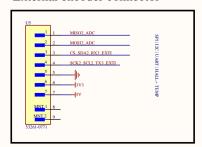
### Absolute position encoder



#### SWD connector



#### External encoder connector



Title:	MCU						
Size:	A2	Document Number: 3				Revision:	1
Date: 06/09/2023			Sheet	*	of *		
File: MCU.SchDoc							
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