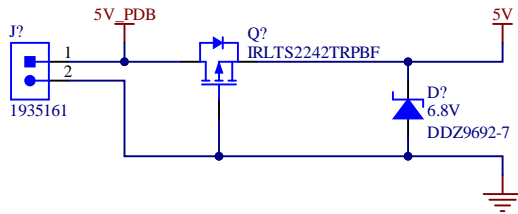
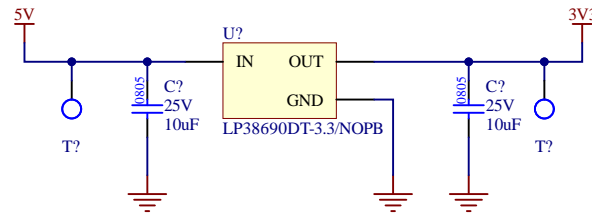


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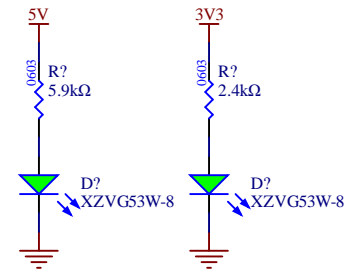
## BMS Connector



## 5V to 3.3V LDO @ 1A Max



## Power LEDs



$$R_{5V} = (5V - 2.1V) / (0.5mA) = 5.8k\Omega$$

$$R_{3V3} = (3.3V - 2.1V) / (0.5mA) = 2.4k\Omega$$

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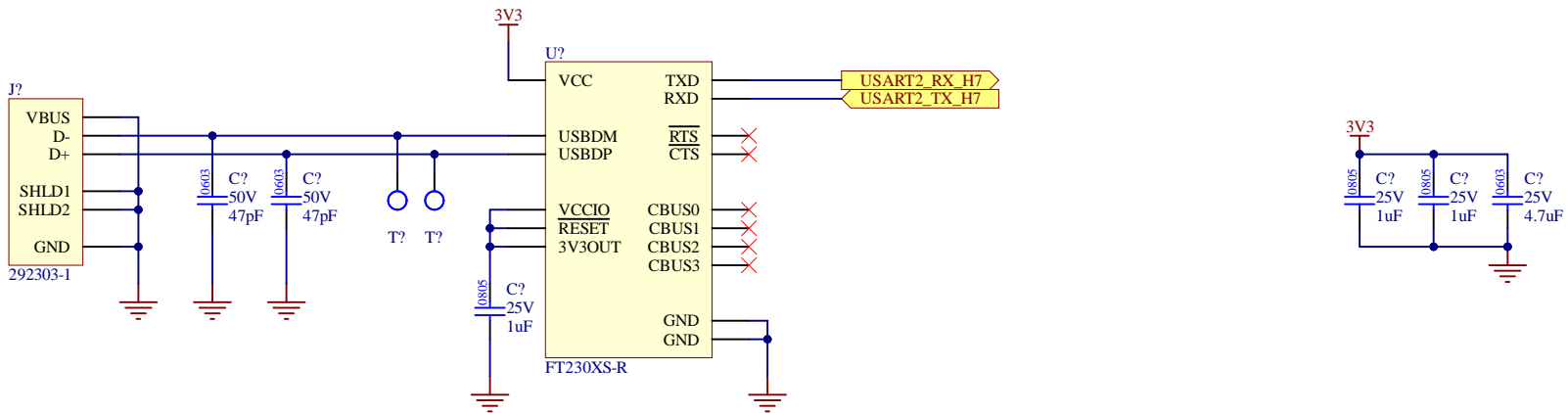
DOCUMENT  
LDO.SchDoc



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ENGINEER  
Daniel Puratich

REVIEWER  
\*

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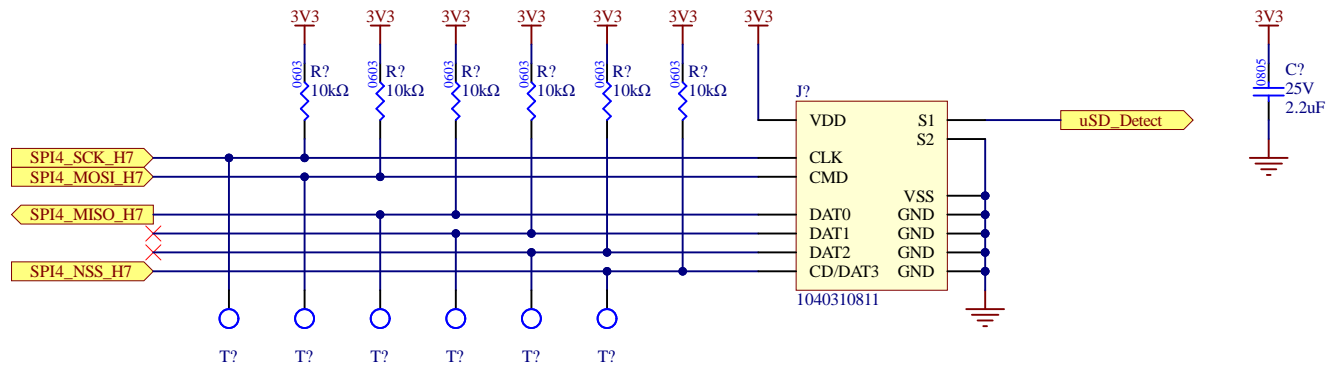


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H7USB.SchDoc				11/8/2021	
ENGINEER		REVIEWER		SHEET	
Kiran Surendran		*		2 OF 9	

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## microSD Connector

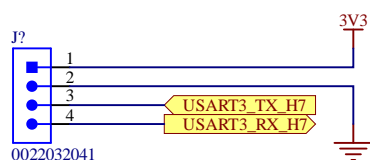
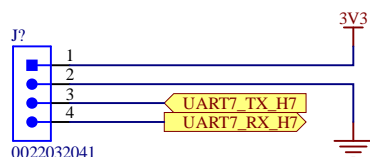
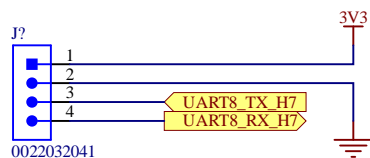
A  
Ground DAT1 &  
DAT2?



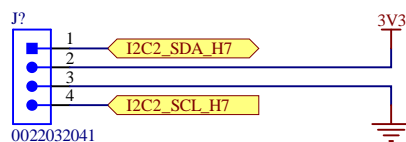
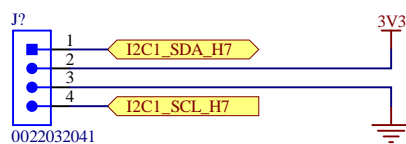
<div>WARG</div>		Waterloo Aerial Robotics Group 200 University Ave W Waterloo, Ontario, Canada N2L 3G1		<div><div></div><div></div><div></div></div>	
PROJECT Zeropilot 2.0.PrjPcb, [No Variations]				REVISION *	
DOCUMENT microSD_Connector.SchDoc				MODIFIED 11/6/2021	
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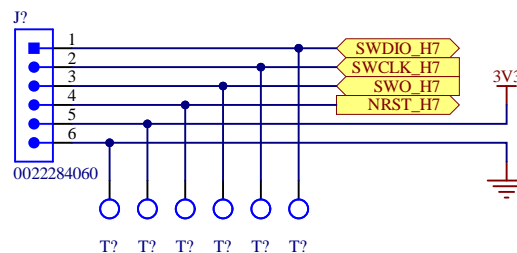
## UART Connectors



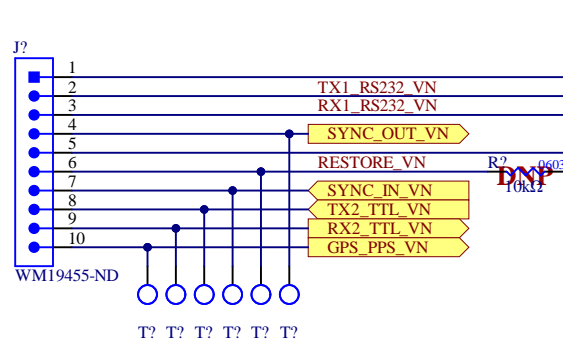
## I2C Connectors



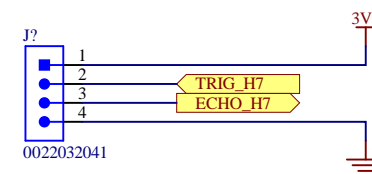
## SWD/SWO Connector



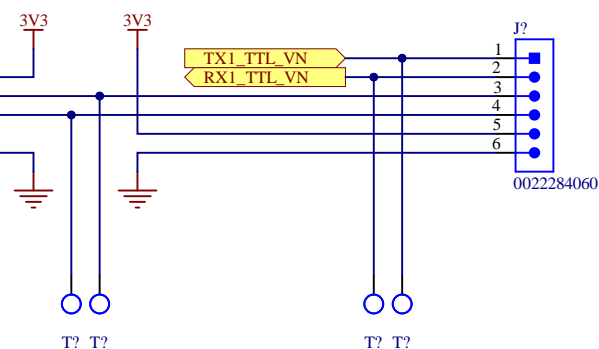
## VN-300 Connector



## Ultrasonic Connector



## MAX3232 Connector



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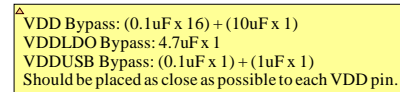
DOCUMENT  
H7Connectors.SchDoc

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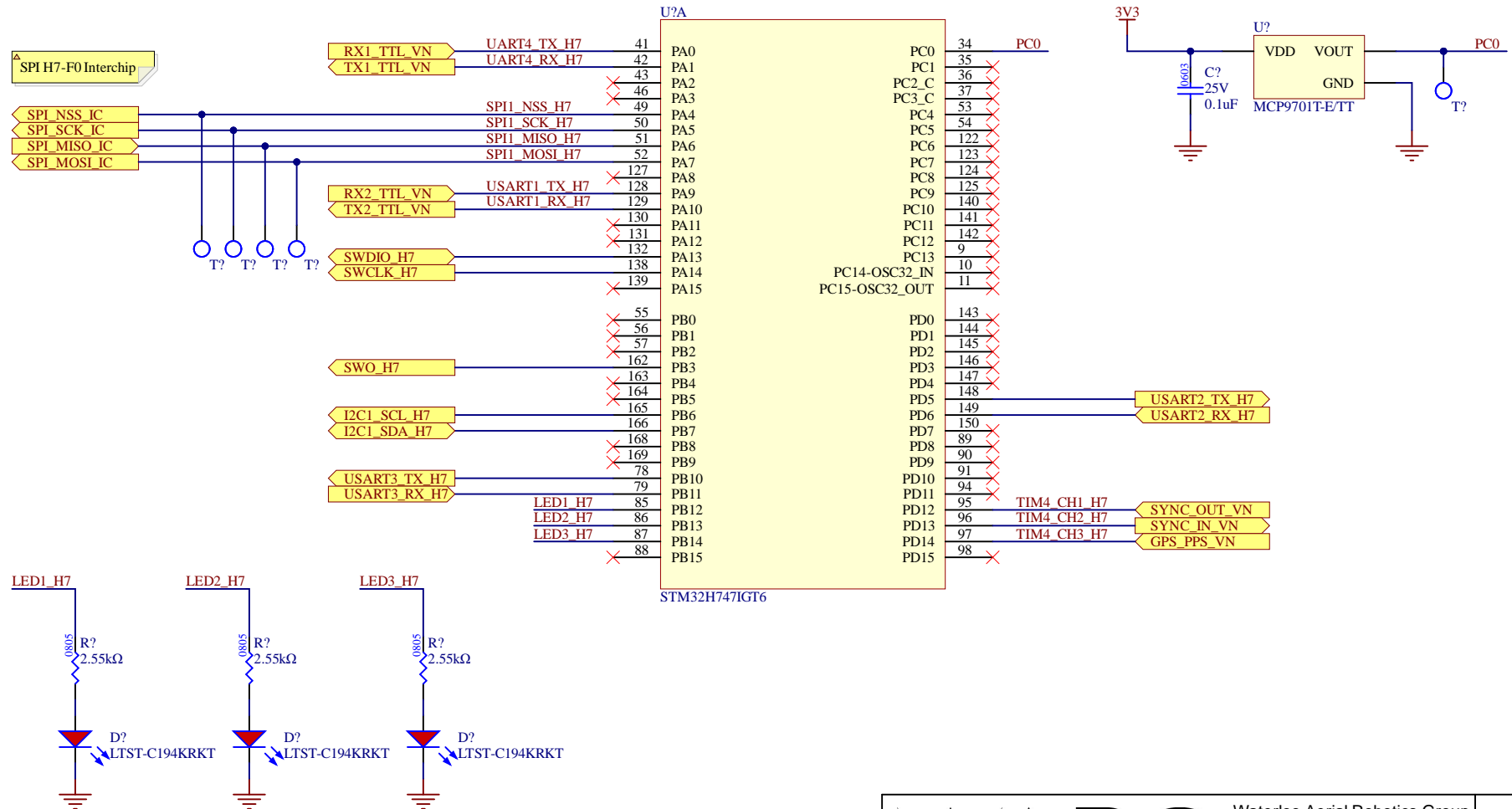
ENGINEER  
Kiran Surendran

REVIEWER  
\*



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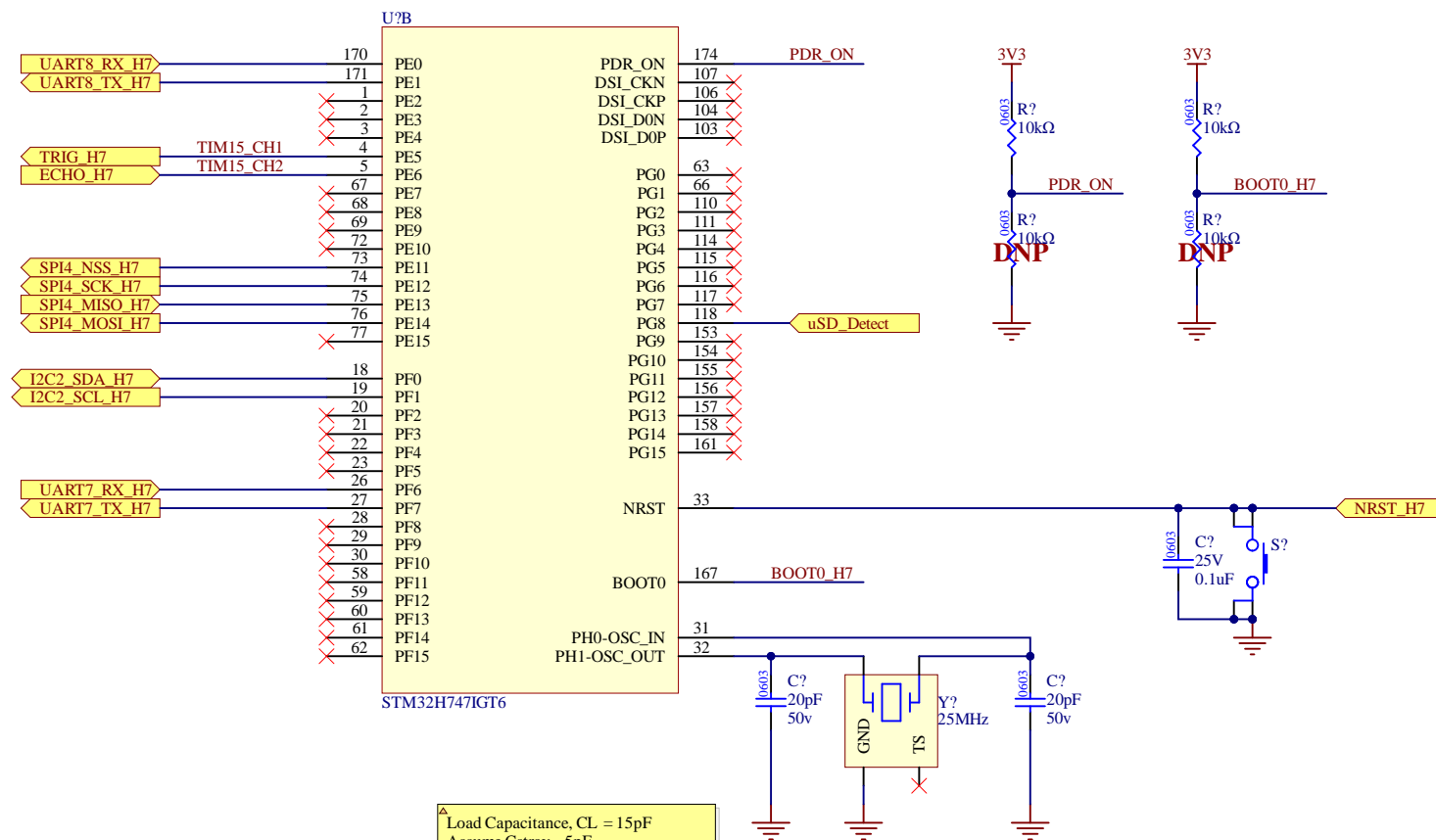


# Zeropilot 2.0



$$R = (3.3V - 2.0V) / (0.5mA) = 2.6k\Omega$$

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Load Capacitance,  $CL = 15\text{pF}$   
 Assume  $C_{\text{stray}} = 5\text{pF}$   
 $CL = ((C1 * C2) / (C1 + C2)) + C_{\text{stray}}$   
 $C1 = C2 = 20\text{pF}$

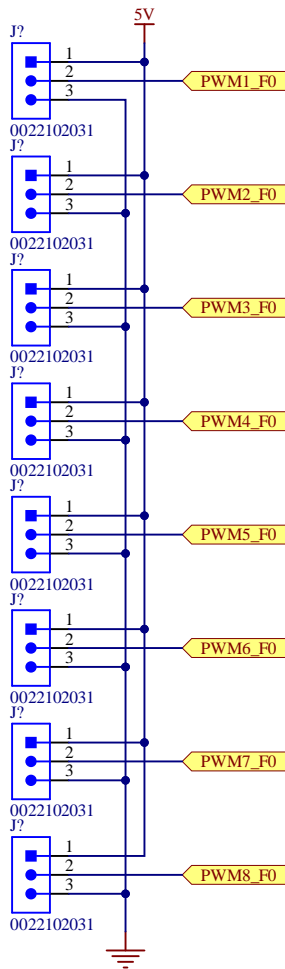


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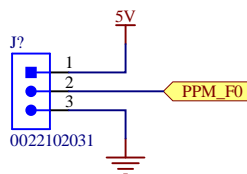


PROJECT Zeropilot 2.0.PrjPcb, [No Variations]		REVISION *	
DOCUMENT H7PartB.SchDoc		MODIFIED 11/8/2021	
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## PWM Connectors

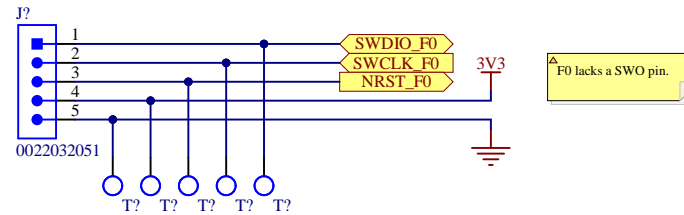


## PPM Connector



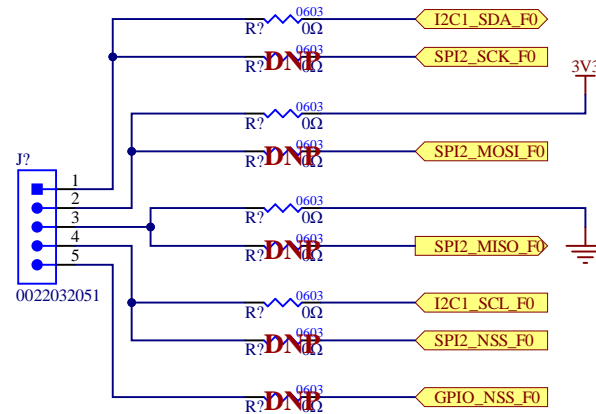
\*

## SWD/SWO Connector





<sup>A</sup> F0 lacks a SWO pin.

## SPI/I2C Connector



<sup>A</sup> F0 SPI2 / I2C1 header can be switched between the two by soldering or unsoldering the 0ohm resistors. Do not place both at the same time as this will cause a short!

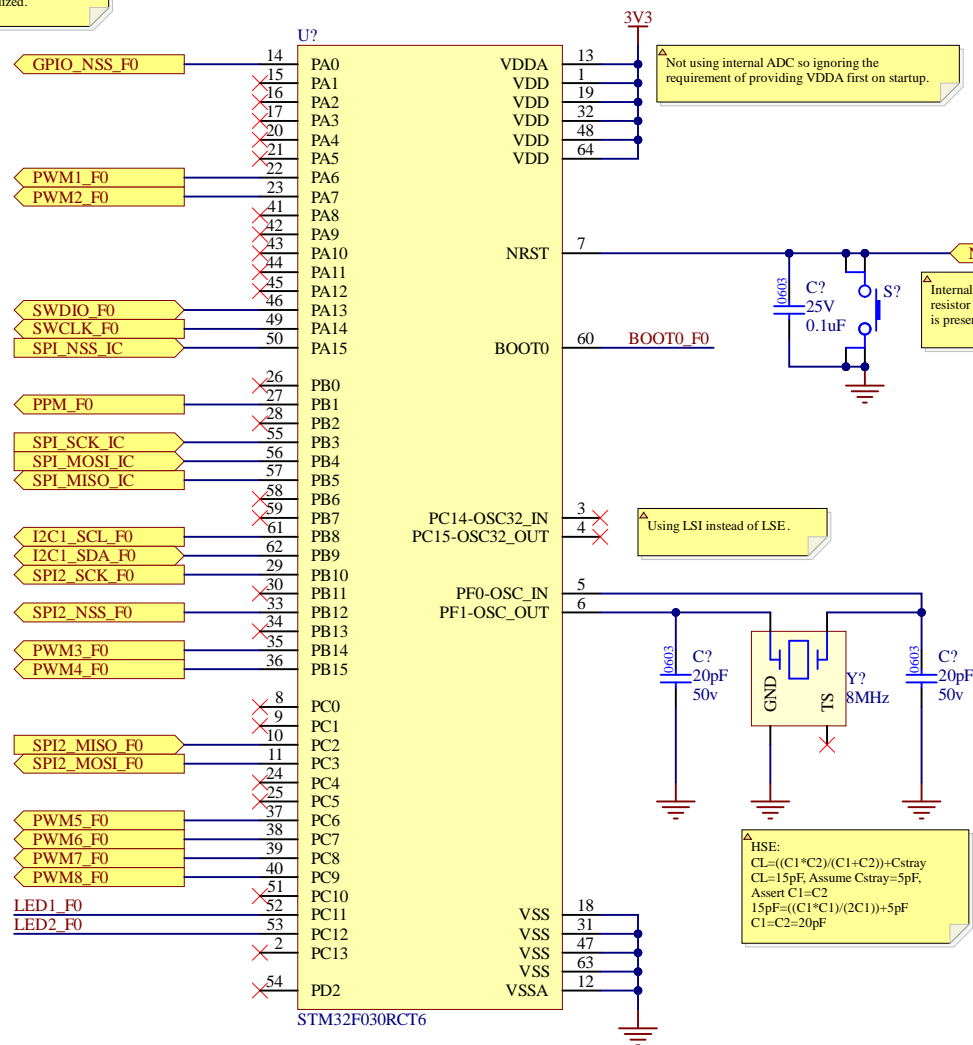
<sup>A</sup> GPIO intended to be used as a 2nd chip select for SPI if needed.

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F0Connectors.SchDoc		11/9/2021		
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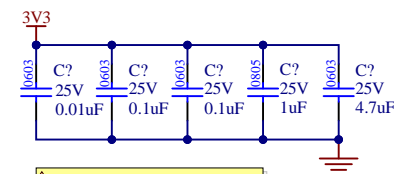




▲ Add notes detailing pinout once finalized.

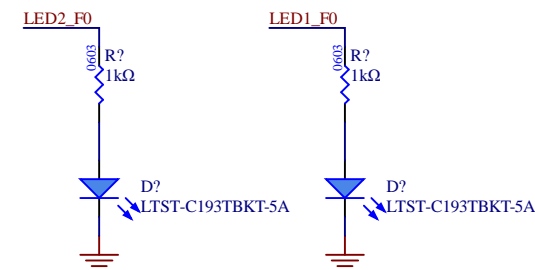


## F0 Bypass Capacitors



▲ Decoupling capacitor placement guide is found in the datasheet on page 42 of the datasheet.

## F0 Debugging LEDs



▲  $R = (3.3V - 2.8V) / (0.5mA) = 1k\Omega$

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