

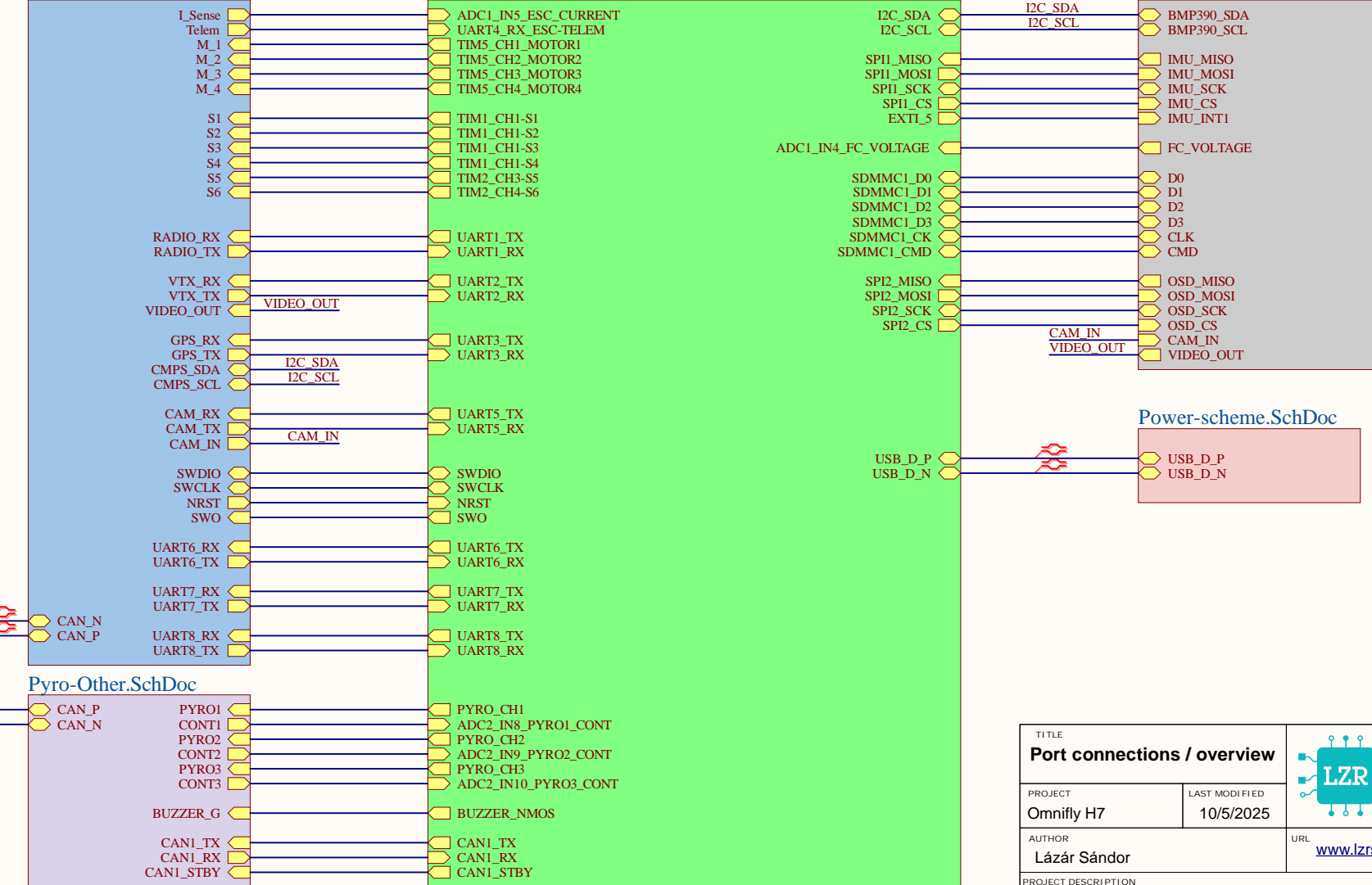
# Overview


Headers-SolderPads.SchDoc

µC-Core.SchDoc

Sensors.SchDoc

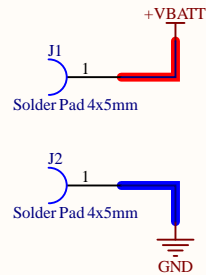
Power-scheme.SchDoc



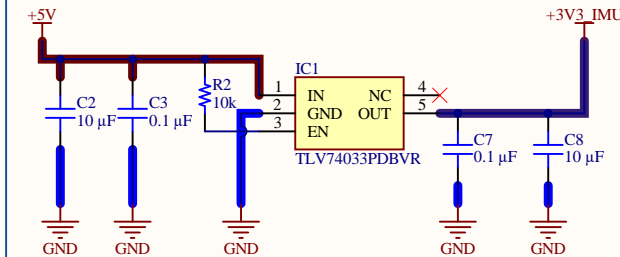
TITLE <b>Port connections / overview</b>			
PROJECT Omnifly H7	LAST MODIFIED 10/5/2025		
AUTHOR Lázár Sándor		URL <a href="http://www.lzrsystems.com">www.lzrsystems.com</a>	
PROJECT DESCRIPTION Multi Platform Flight controller			REVISION 1
FILE NAME Overview.SchDoc			SHEET 1 OF 6

# Power Scheme

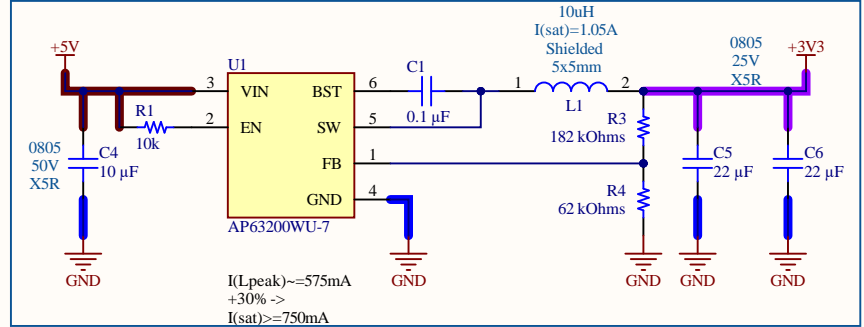
Direct battery voltage(2-6S)



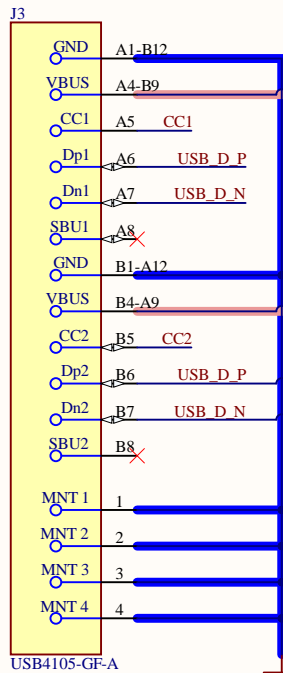
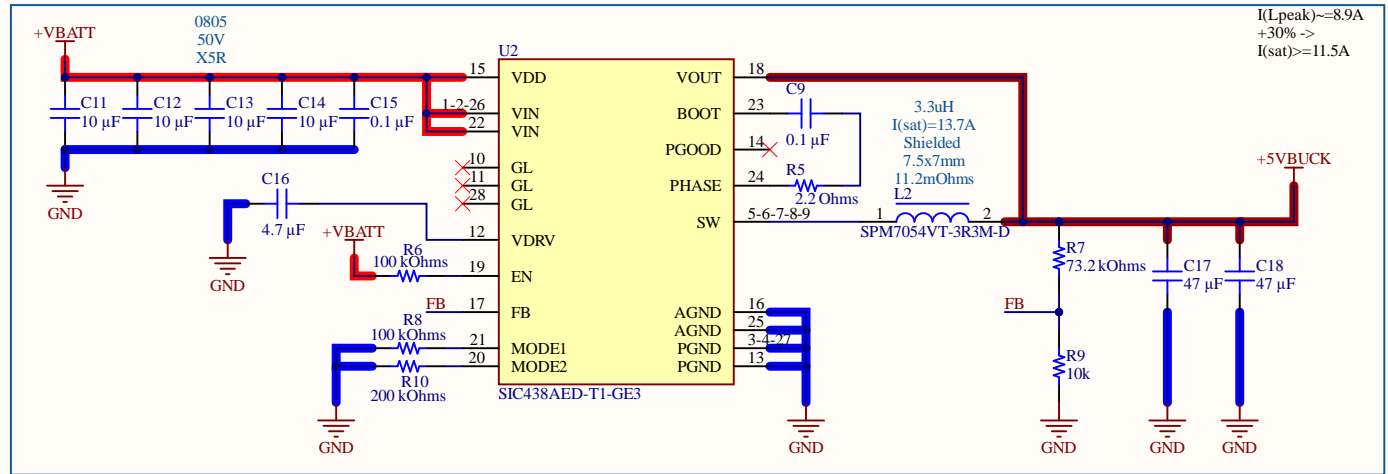
IMU LDO Regulator



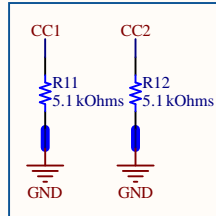
3.3V Buck Converter



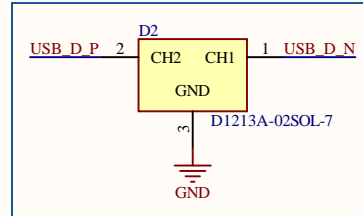
5V Buck Converter



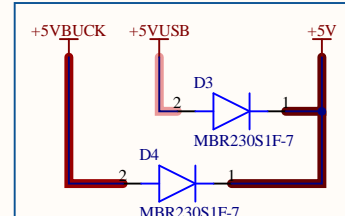
CC1, CC2 Pulldowns




USB D\_P, D\_N ESD Protection

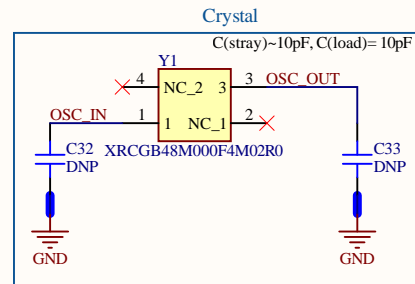
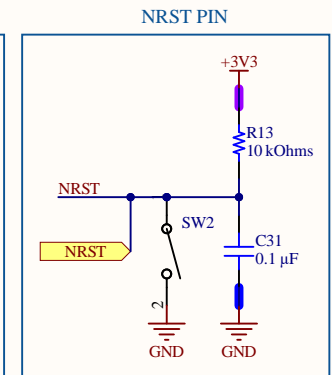
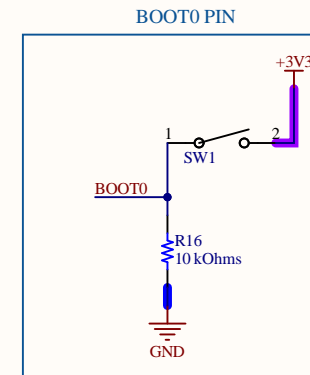
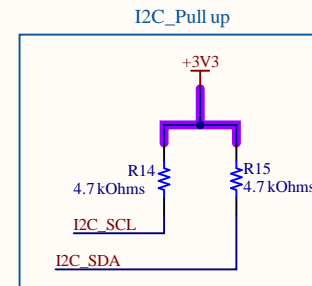
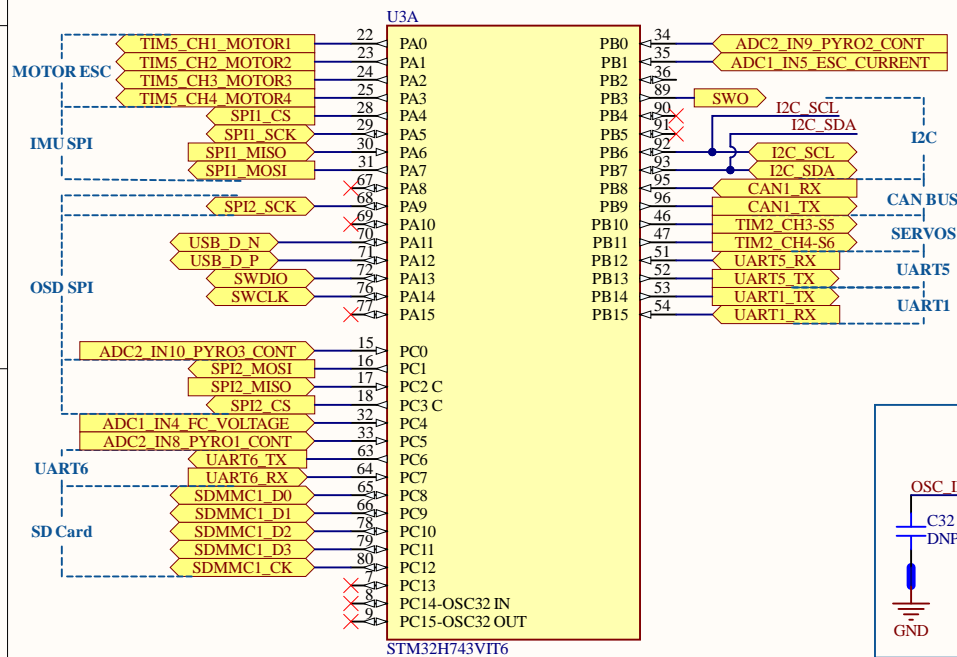
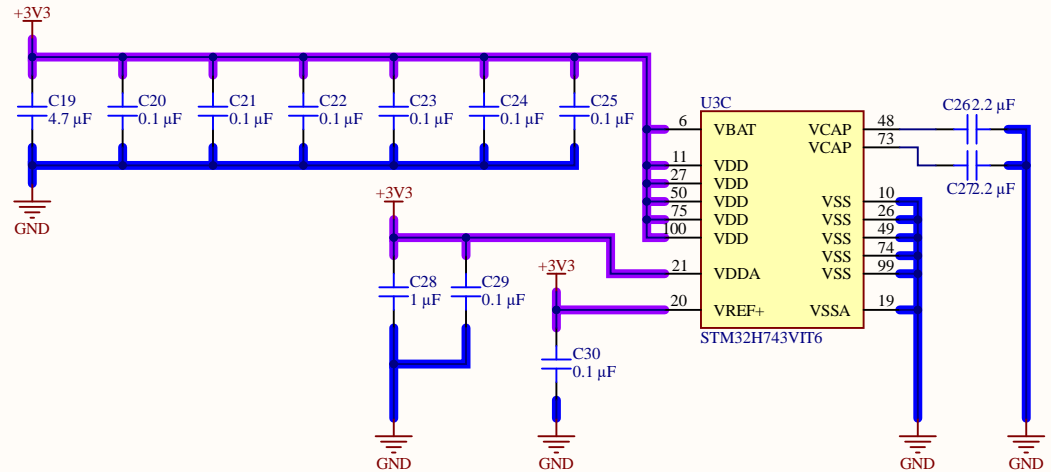
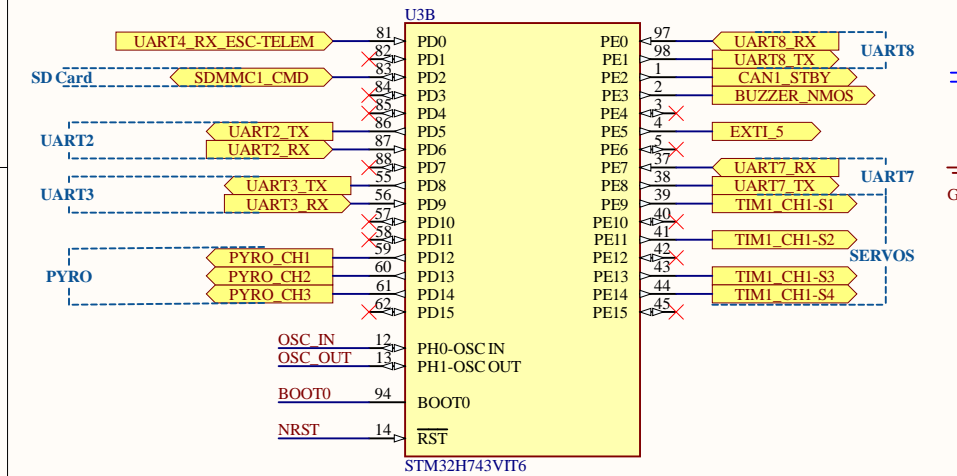


5V Rail



TITLE		<b>Power Scheme</b>			
PROJECT		LAST MODIFIED		<a href="http://www.lzrsystems.com">www.lzrsystems.com</a>	
Omnifly H7		10/5/2025			
AUTHOR			URL		
Lázár Sándor					
PROJECT DESCRIPTION				REVISION	
Multi Platform Flight controller				1	
FILE NAME				SHEET 2 OF 6	
Power-scheme.SchDoc					

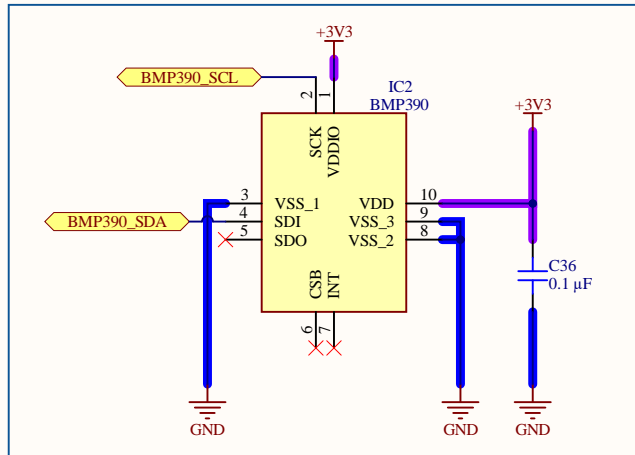
# Microcontroller



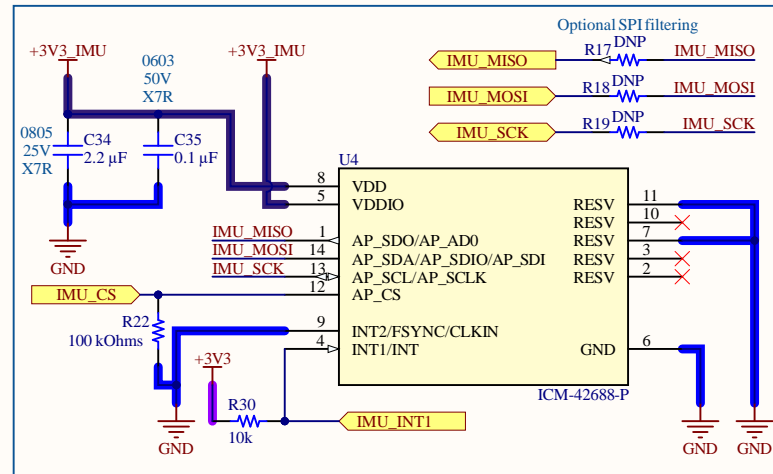
TITLE <b>Microcontroller &amp; Pinout</b>		LZR Systems	
PROJECT Omnify H7	LAST MODIFIED 10/5/2025	URL <a href="http://www.lzrsystems.com">www.lzrsystems.com</a>	
AUTHOR Lázár Sándor		REVISION 1	
PROJECT DESCRIPTION Multi Platform Flight controller			REVISION 1
FILE NAME <b>μC-Core.SchDoc</b>			SHEET 3 OF 6

# Sensors

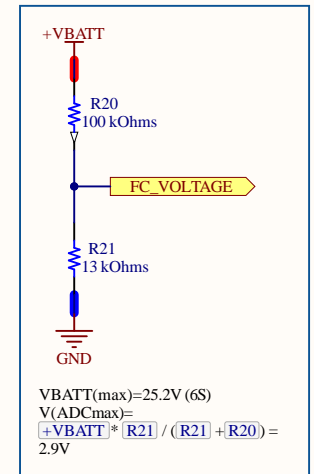
BMP390 - Barometric pressure sensor



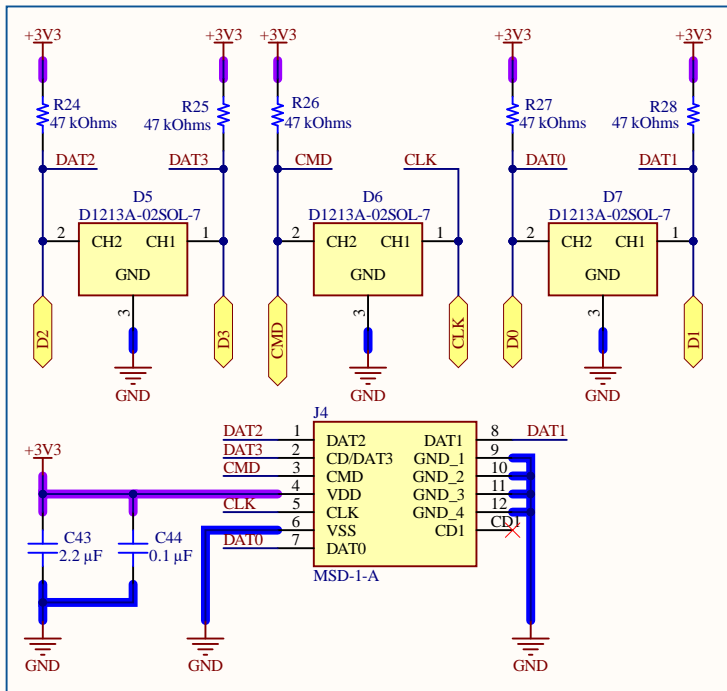
ICM-42688-P - Inertial measurement unit



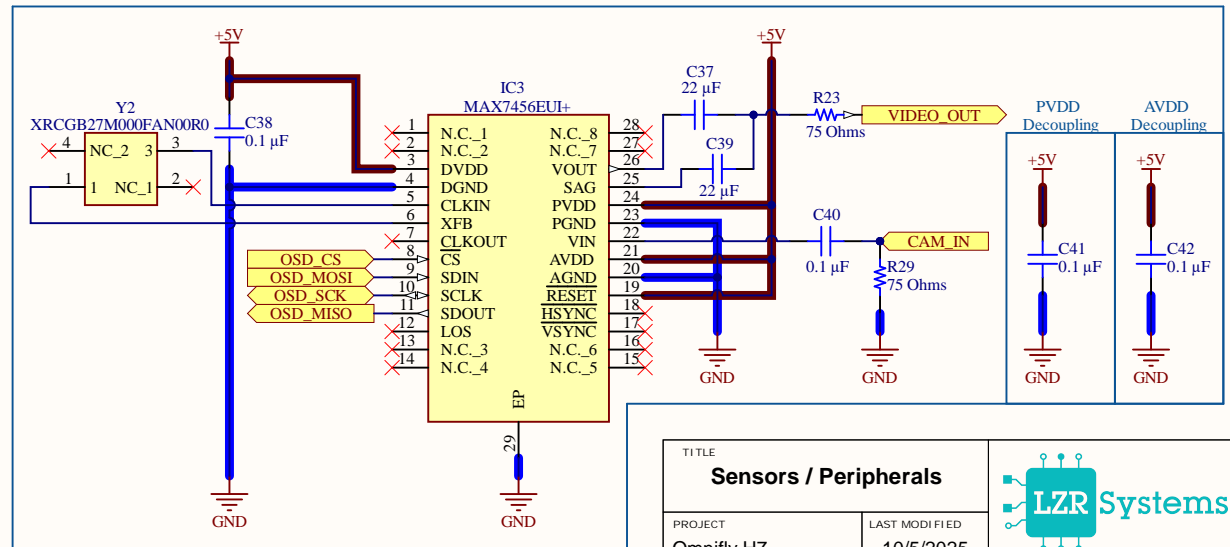
Voltage sense




MSD-1-A - micro SD Card reader



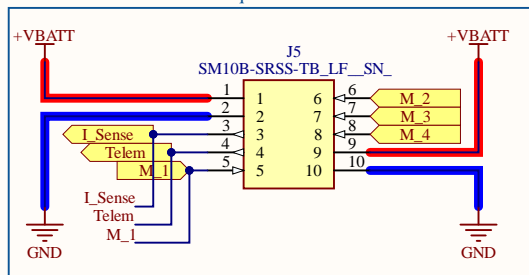
Analog video on screen display interface



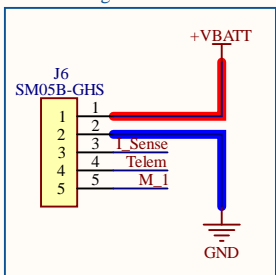
TITLE <b>Sensors / Peripherals</b>			
PROJECT <b>Omnifly H7</b>	LAST MODIFIED <b>10/5/2025</b>		
AUTHOR <b>Lázár Sándor</b>		URL <a href="http://www.lzrsystems.com">www.lzrsystems.com</a>	
PROJECT DESCRIPTION <b>Multi Platform Flight controller</b>			REVISION <b>1</b>
FILE NAME <b>Sensors.SchDoc</b>			SHEET <b>4</b> OF <b>6</b>

# Headers-SolderPads

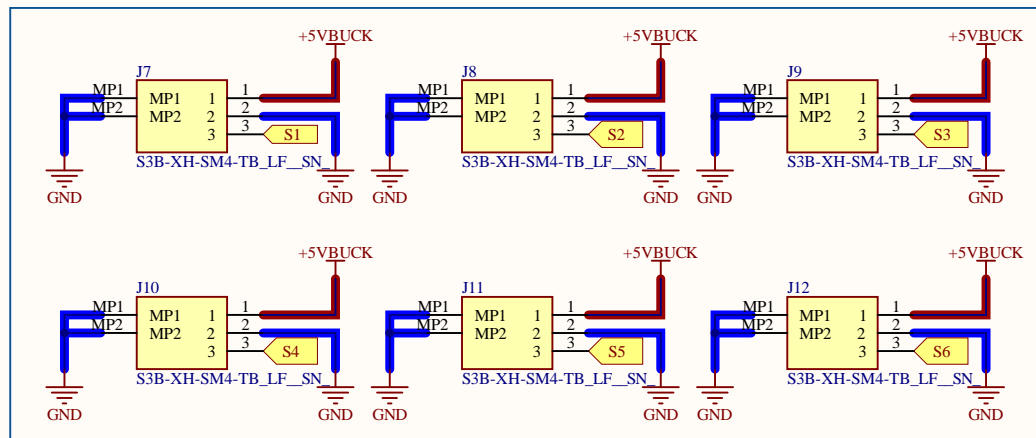
Standard quad motor ESC header



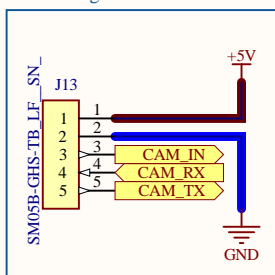
Custom single motor ESC header



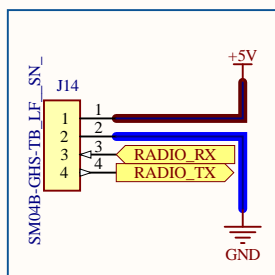
Servo headers



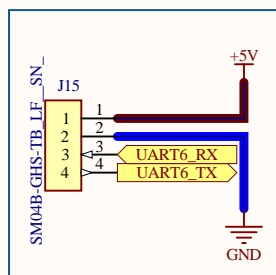
Analog FPV Camera header



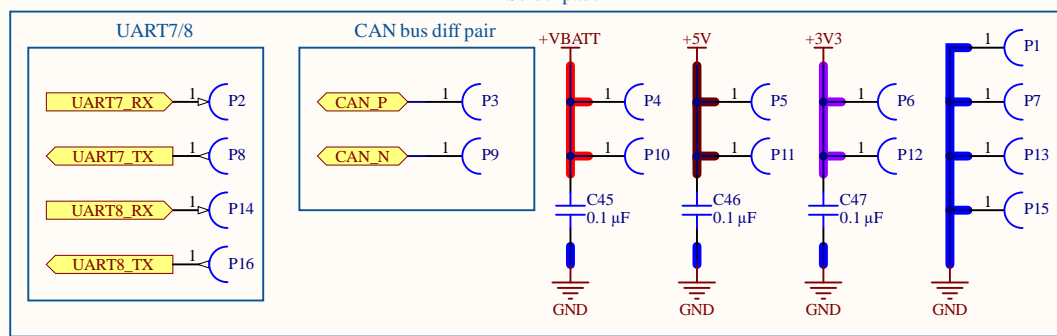
Radio / Remote header



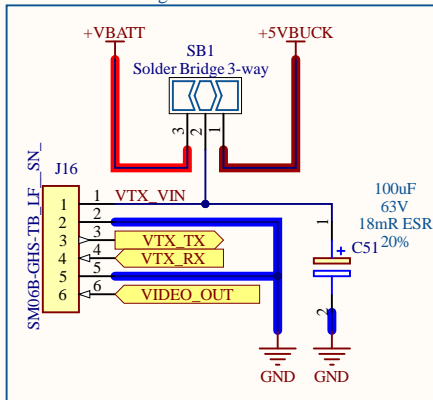
UART6 header



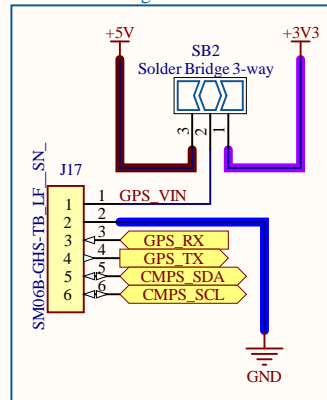
Solder pads



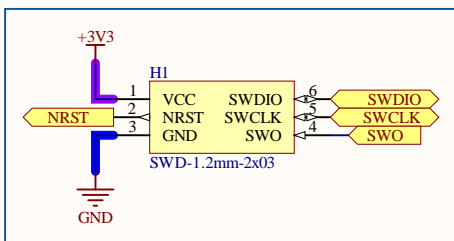
Analog VTX / DJI O4 header



GPS+Magnetometer header



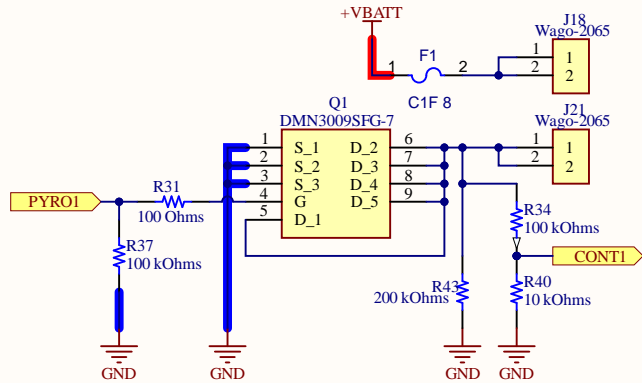
SWD header



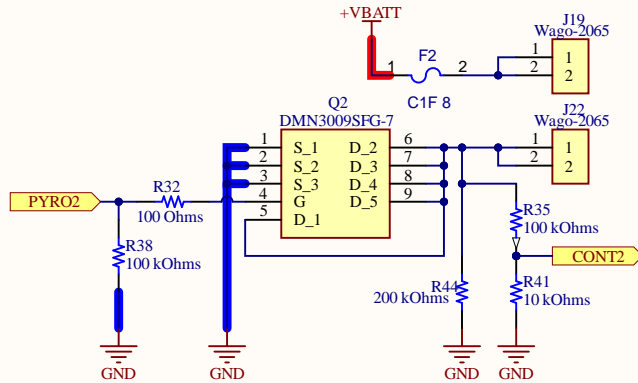
TITLE <b>Headers / Solder pads</b>			
PROJECT <b>Omnifly H7</b>	LAST MODIFIED <b>10/5/2025</b>		
AUTHOR <b>Lázár Sándor</b>		URL <a href="http://www.lzrsystems.com">www.lzrsystems.com</a>	
PROJECT DESCRIPTION <b>Multi Platform Flight controller</b>			REVISION <b>1</b>
FILE NAME <b>Headers-SolderPads.SchDoc</b>			SHEET <b>5</b> OF <b>6</b>

# Pyro / Other peripherals

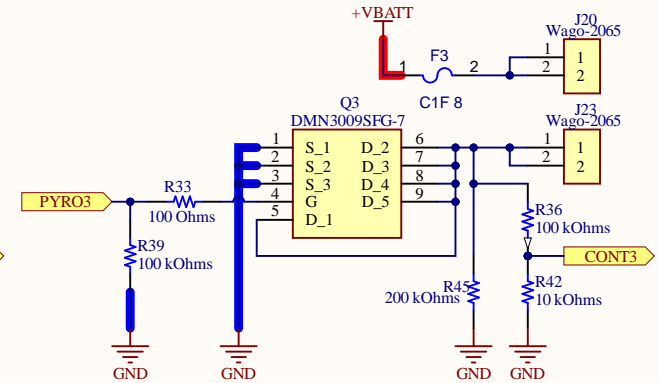
Channel 1



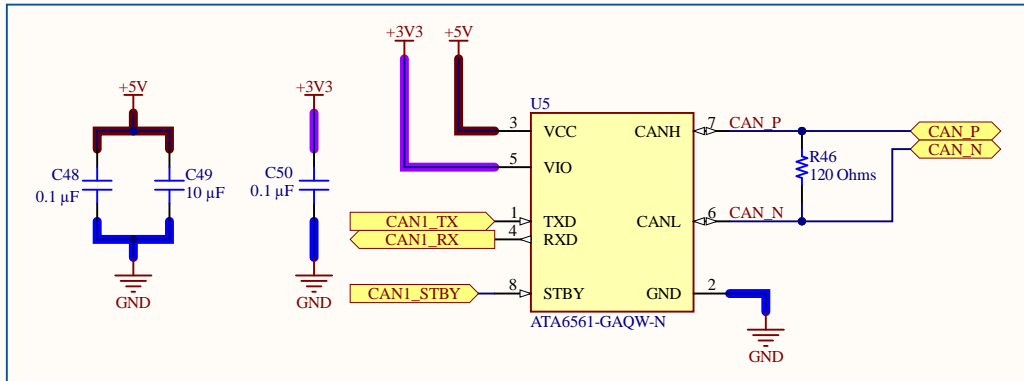
Channel 2



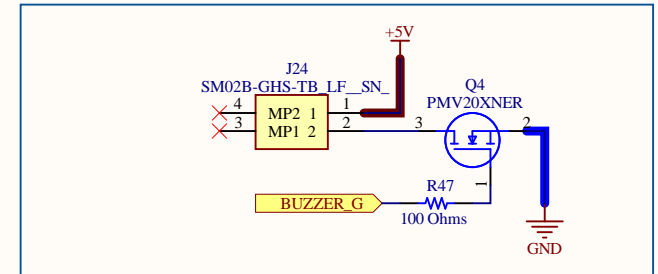
Channel 3




CAN bus transceiver



Buzzer



TITLE <b>Pyro / Buzzer / CAN</b>			
PROJECT Omnify H7	LAST MODIFIED 10/5/2025		
AUTHOR Lázár Sándor	URL <a href="http://www.lzrsystems.com">www.lzrsystems.com</a>	REVISION 1	
PROJECT DESCRIPTION Multi Platform Flight controller			FILE NAME Pyro-Other.SchDoc
SHEET 6 OF 6			