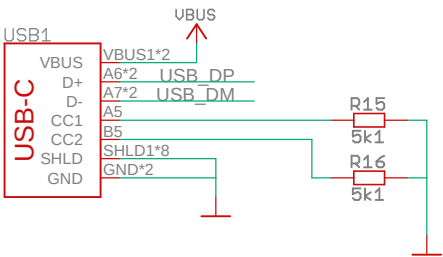


Pimoroni Explorer (PIM720)

USB-C Connector



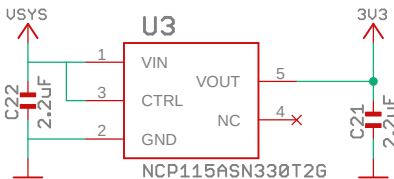
RP2350B MCU

MCU2

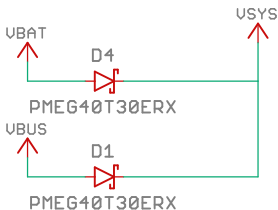
RP2350B
IOVDD&VREG: 1.8-3.3V
USB&ADC: 3.3V
DVDD: 1.1V

ADC_IOVDD	GPIO0	77	GP0
	GPIO1	78	GP1
	GPIO2	79	GP2
	GPIO3	80	GP3
	GPIO4	1	GP4
	GPIO5	2	GP5
IOVDD	GPIO6	3	SERVO1
USB_OTP_IOVDD	GPIO7	4	SERVO2
QSPI_IOVDD			
VREG_VIN			
	GPIO8	6	SERVO3
	GPIO9	7	SERVO4
VREG_AVDD	GPIO10	8	
	GPIO11	9	
	GPIO12	11	PWM_AUDIO
	GPIO13	12	AMP_EN
	GPIO14	13	SW_C
	GPIO15	14	SW_B
VREG_LX			
	GPIO16	16	SW_A
VREG_FB	GPIO17	17	SW_X
DVDD	GPIO18	18	SW_Y
	GPIO19	19	SW_Z
	GPIO20	20	I2C_SDA
	GPIO21	21	I2C_SCL
	GPIO22	22	USER_SW
	GPIO23	23	
	GPIO24	25	
XIN	GPIO25	26	
XOUT	GPIO26	27	LCD_BACKLIGHT
	GPIO27	28	LCD_CS
	GPIO28	36	LCD_RS
	GPIO29	37	
	GPIO30	38	LCD_WR
	GPIO31	39	LCD_RD
	GPIO32	40	LCD_DB0
	GPIO33	42	LCD_DB1
	GPIO34	43	LCD_DB2
	GPIO35	44	LCD_DB3
	GPIO36	45	LCD_DB4
	GPIO37	46	LCD_DB5
	GPIO38	47	LCD_DB6
	GPIO39	48	LCD_DB7
	GPIO40/ADC0	49	ADC0
	GPIO41/ADC1	52	ADC1
	GPIO42/ADC2	53	ADC2
	GPIO43/ADC3	54	ADC3
	GPIO44/ADC4	55	ADC4
	GPIO45/ADC5	56	ADC5
	GPIO46/ADC6	57	VSYS_SENSE
	GPIO47/ADC7	58	1V1_SENSE

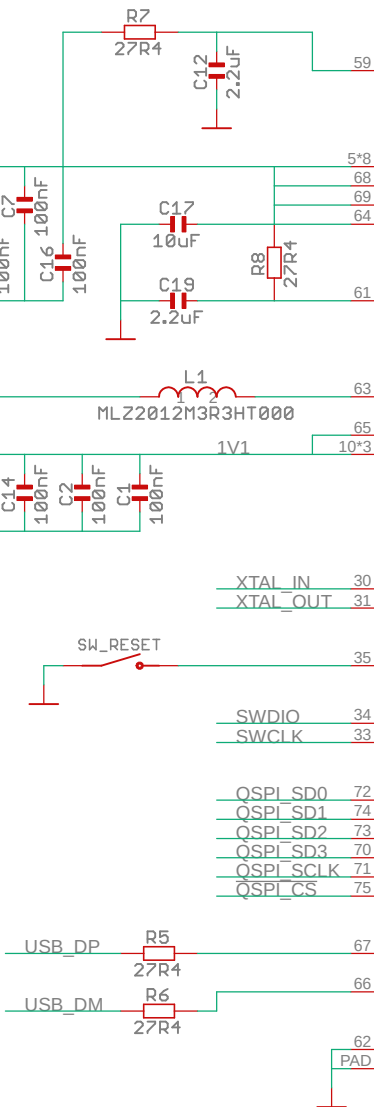
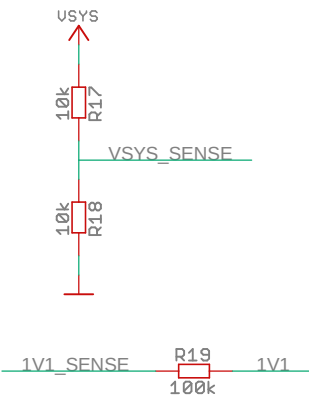
LDO



Power Selection



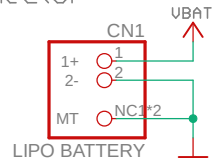
Voltage Sense



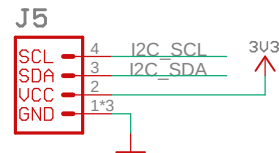
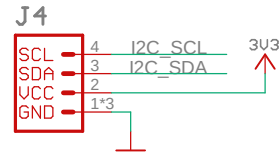
Pimoroni Explorer (PIM720)

Battery Connector

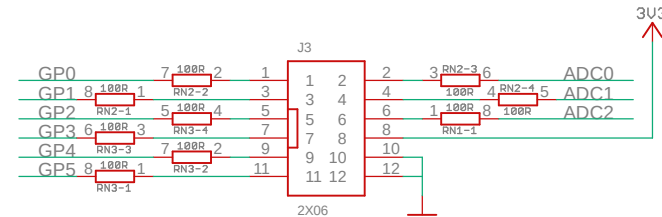
Suitable for any input voltage between 3.5V and 5.5V - i.e. a protected LiPo cell or 3xAAA battery holder.



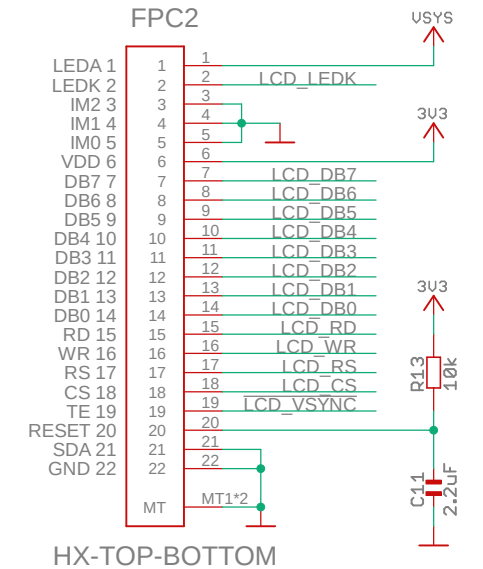
QW/ST connectors



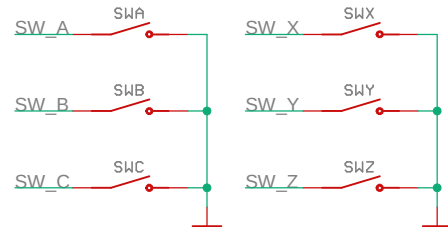
Output Headers



LCD connector & circuitry

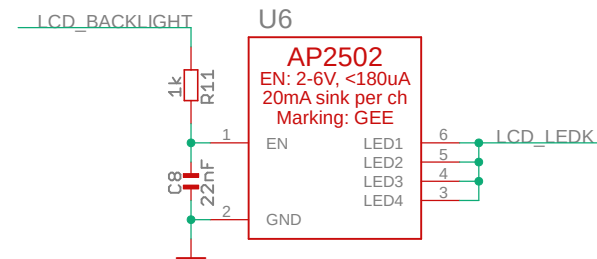


Switches

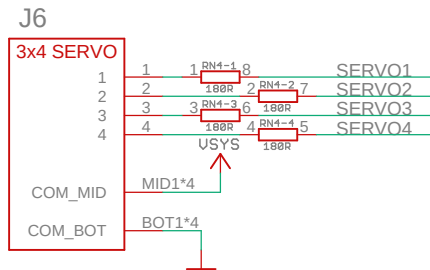


LCD Backlight

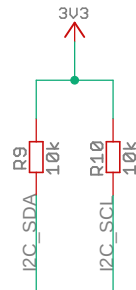
Display backlight is 4 white LEDs in parallel (<V_F 3.2 - 20mA). Each channel of the AP2502 constant current driver sinks 20mA so we tie them together to provide the necessary current.



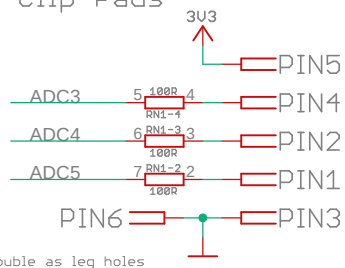
Servo/PWM outputs



I2C Pull-ups

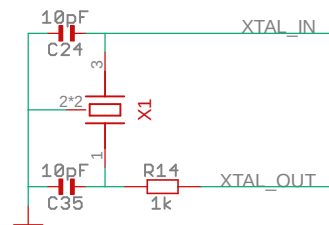


Croc Clip Pads

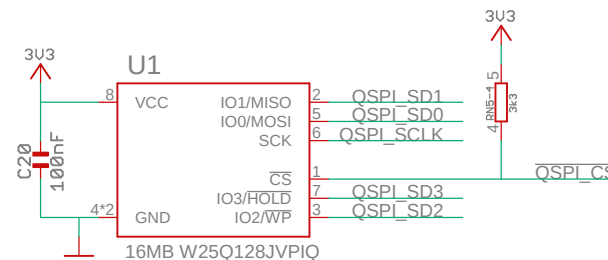


3 & 6 double as leg holes

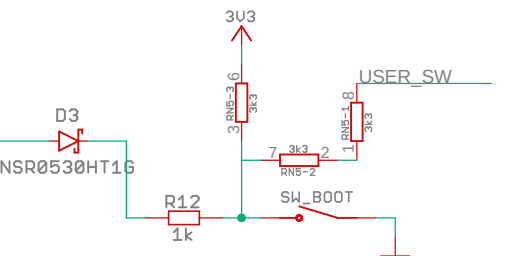
Crystal oscillator



Flash memory

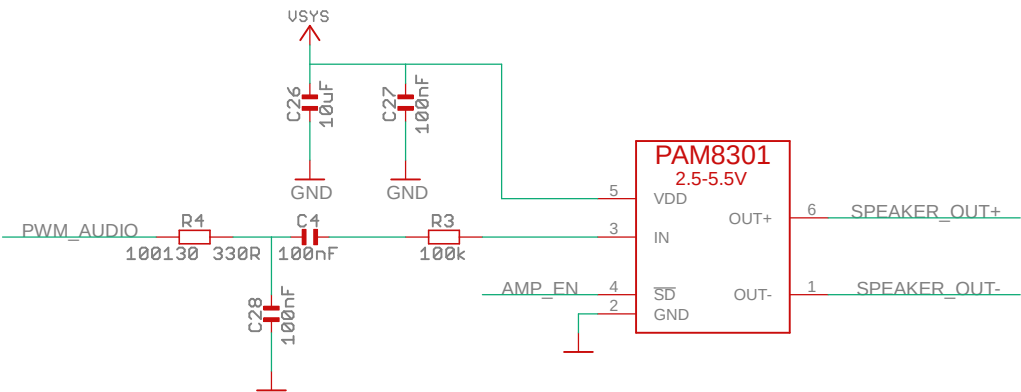


Combined USB boot & user switch

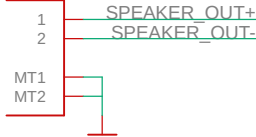


Pimoroni Explorer (PIM720)

Audio Amplifier



SPEAKER



Debug Pads

