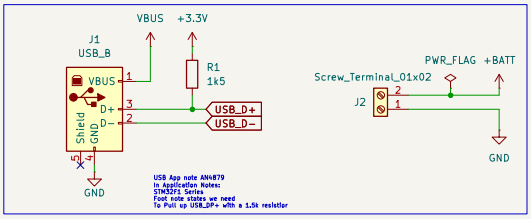
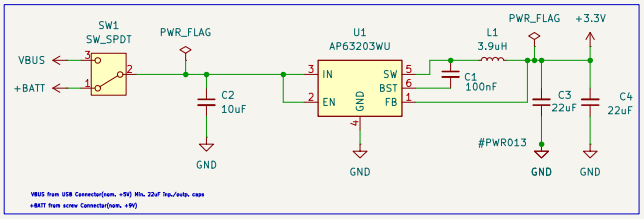
PCB Design STM32 Workshop

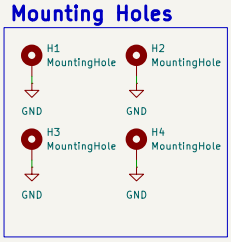
USB & POWER IN



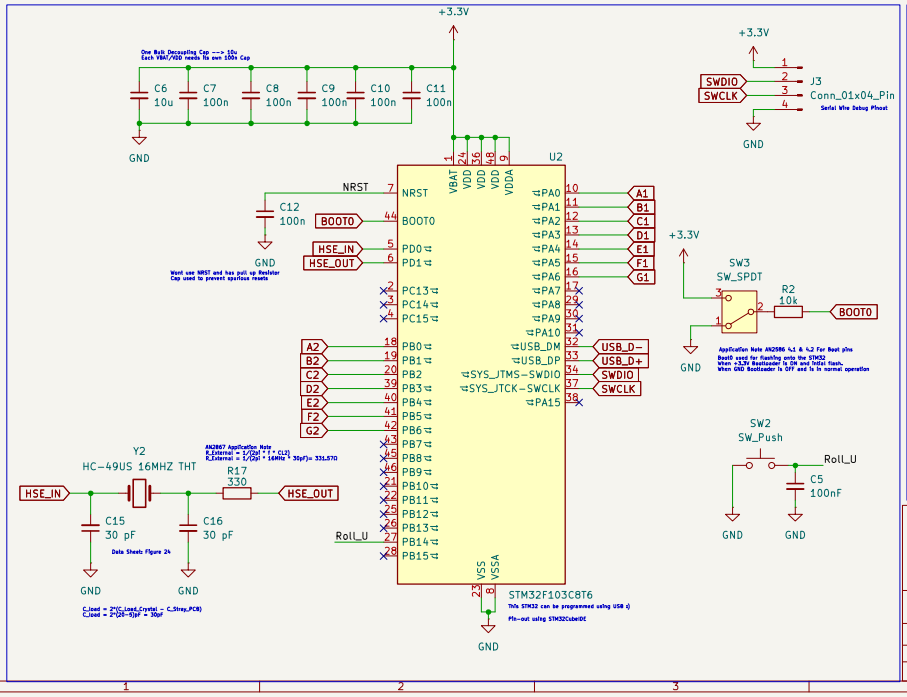
Buck: 3.3V 2A



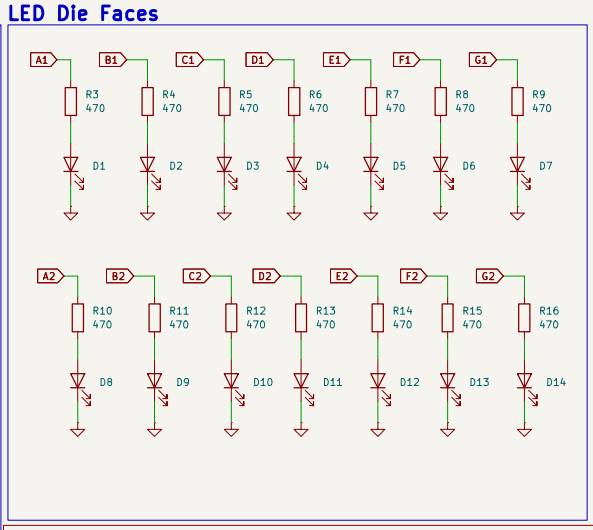
Mounting Holes



Microcontroller



LED Die Faces



Matthew Smith

Sheet: /
File: STM32_PCB_Workshop_Design.kicad_sch

Title: STM32F4 PCB Workshop

Size: A4	Date: 2025-09-18	Rev: V1.0
KiCad E.D.A. 9.0.2		Id: 1/3

Reference	Qty	Value	Footprint
C1, C5, C7, C8, C9, C10, C11, C12	8	100nF	Capacitor_SMD:C_1206_3216Metric_Pad1.33x1.80mm_HandSolder
C2,C6	2	10uF	Capacitor_SMD:C_1206_3216Metric_Pad1.33x1.80mm_HandSolder
C3,C4	2	22uF	Capacitor_SMD:C_1206_3216Metric_Pad1.33x1.80mm_HandSolder
C15,C16	2	30 pF	Capacitor_SMD:C_1206_3216Metric_Pad1.33x1.80mm_HandSolder
D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14	14	RED (FV ~1.8V)	LED_THT:LED_D5.0mm
H1, H2, H3, H4	4	MountingHole	MountingHole:MountingHole_3.2mm_M3_Pad
J1	1	USB_B	Connector_USB:USB_B_OST_USB-B1HSxx_Horizontal
J2	1	Screw_Terminal_01x0	TerminalBlock:TerminalBlock_MaiXu_MX126-5.0-02P_1x02_P5.00mm
J3	1	Conn_01x04_Pin	Connector_PinHeader_2.54mm:PinHeader_1x04_P2.54mm_Vertical
L1	1	3.9uH	Inductor_SMD:L_Bourns_SDR0604
R1	1	1k5	Resistor_SMD:R_1206_3216Metric_Pad1.30x1.75mm_HandSolder
R2	1	10k	Resistor_SMD:R_1206_3216Metric_Pad1.30x1.75mm_HandSolder
R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16	14	470	Resistor_SMD:R_1206_3216Metric_Pad1.30x1.75mm_HandSolder
R17	1	330	Resistor_SMD:R_1206_3216Metric_Pad1.30x1.75mm_HandSolder
SW1,SW3	2	SW_SPDT	Button_Switch_THT:SW_Slide_SPDT_Straight_CK_OS102011MS2Q
SW2	1	SW_Push	Button_Switch_THT:SW_SPST_Omron_B3F-40xx
U1	1	AP63203WU	Package_TO_SOT_SMD:TSOT-23-6
U2	1	STM32F103C8T6	Package_QFP:LQFP-48_7x7mm_P0.5mm
Y2	1	HC-49US 16MHZ THT	Crystal:Crystal_HC49-4H_Vertical