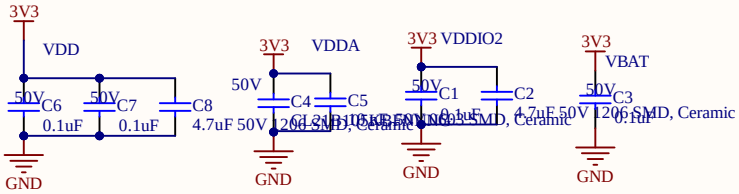
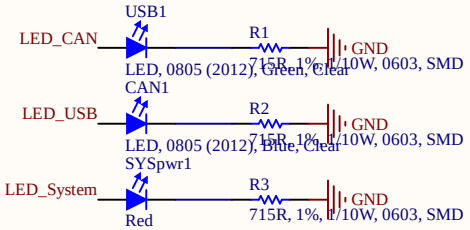
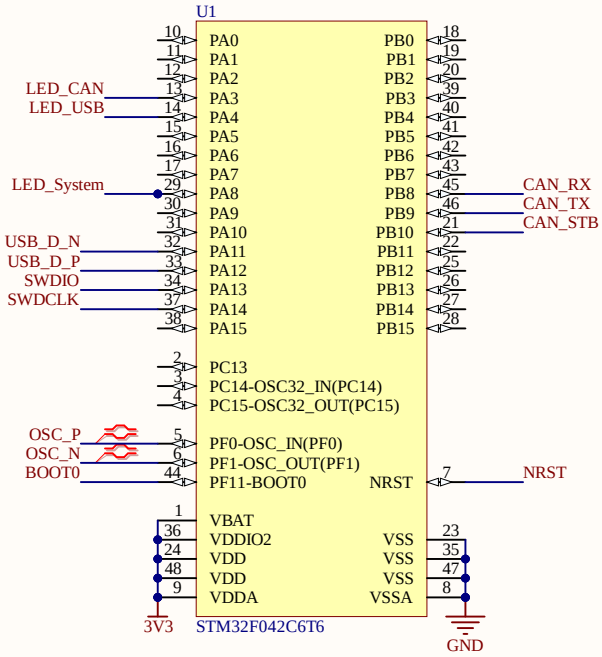
Power Bypass Caps

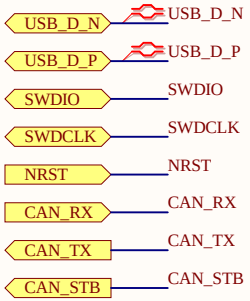


Status LEDs

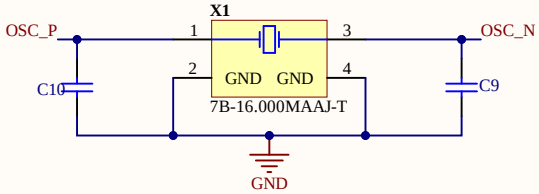


STM32F042C6T6



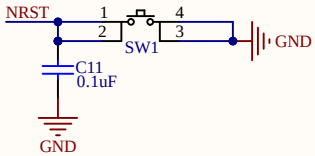


16MHz Crystal (2x18pF)

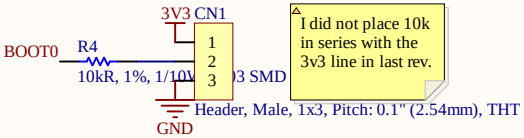


Crystal is not needed for USB applications

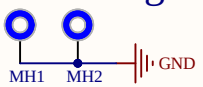
RESET Switch



Boot Switch

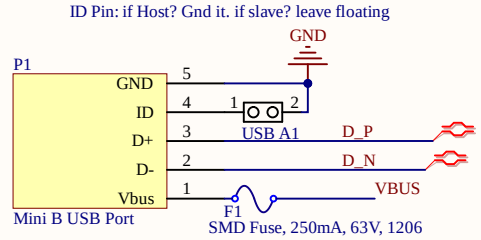


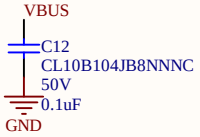
Mounting holes

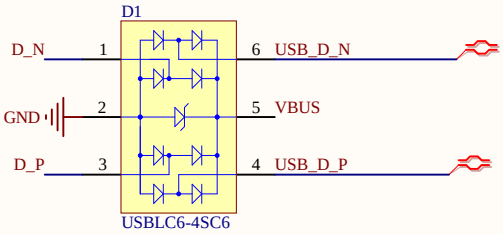


Title: [1] - STM.SchDoc		
Size: A4	Number: 4	Revision: 1
Date: 10-28-2020		Sheet of
File: C:\Users\..\[1] - STM.SchDoc		Drawn By: Aman Nijjar

USB

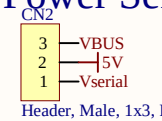






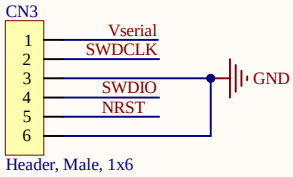
VBUS sensing is not needed because MC is powered by USB
The STM32F04x has a built in pull up resistor for the DM/DP lines
Place ESD Protection chip near the USB port. See its document for Layout

Power Selection



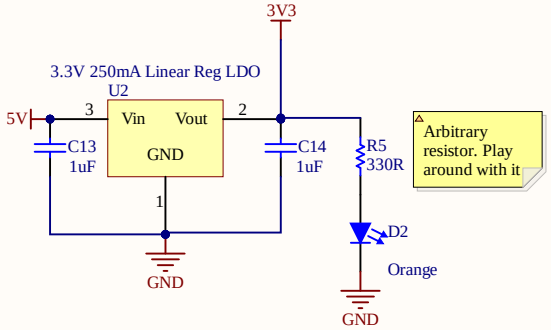
Header, Male, 1x3, Pitch: 0.1" (2.54mm), THT
VBUS is USB power and Vserial is serial power

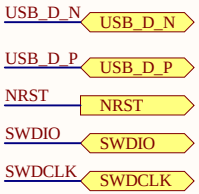
SWD Conn.



Header, Male, 1x6

3.3V 250mA Linear Reg LDO





Title	[2] - PWR, USB.SchDoc	
Size: A4	Number: 2	Revision: 2
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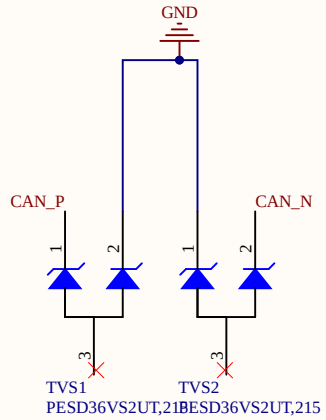
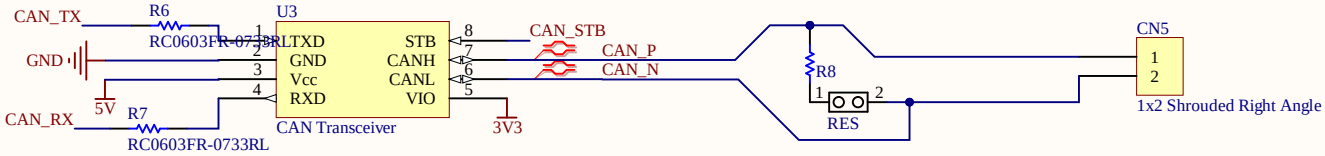
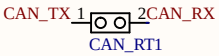
TVS Protection

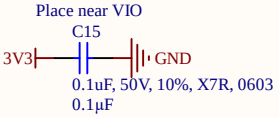


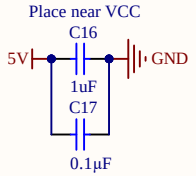
CAN

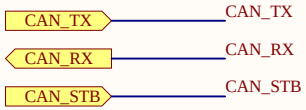


This will let us bypass the terminating resistor









Title	[3] - CAN.SchDoc	
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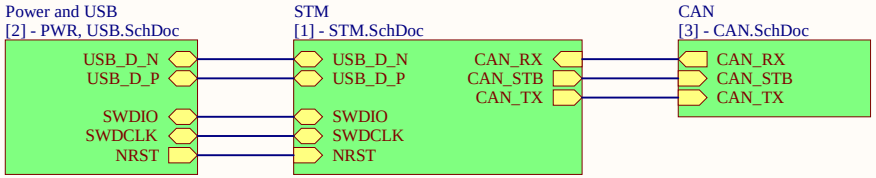

Title		
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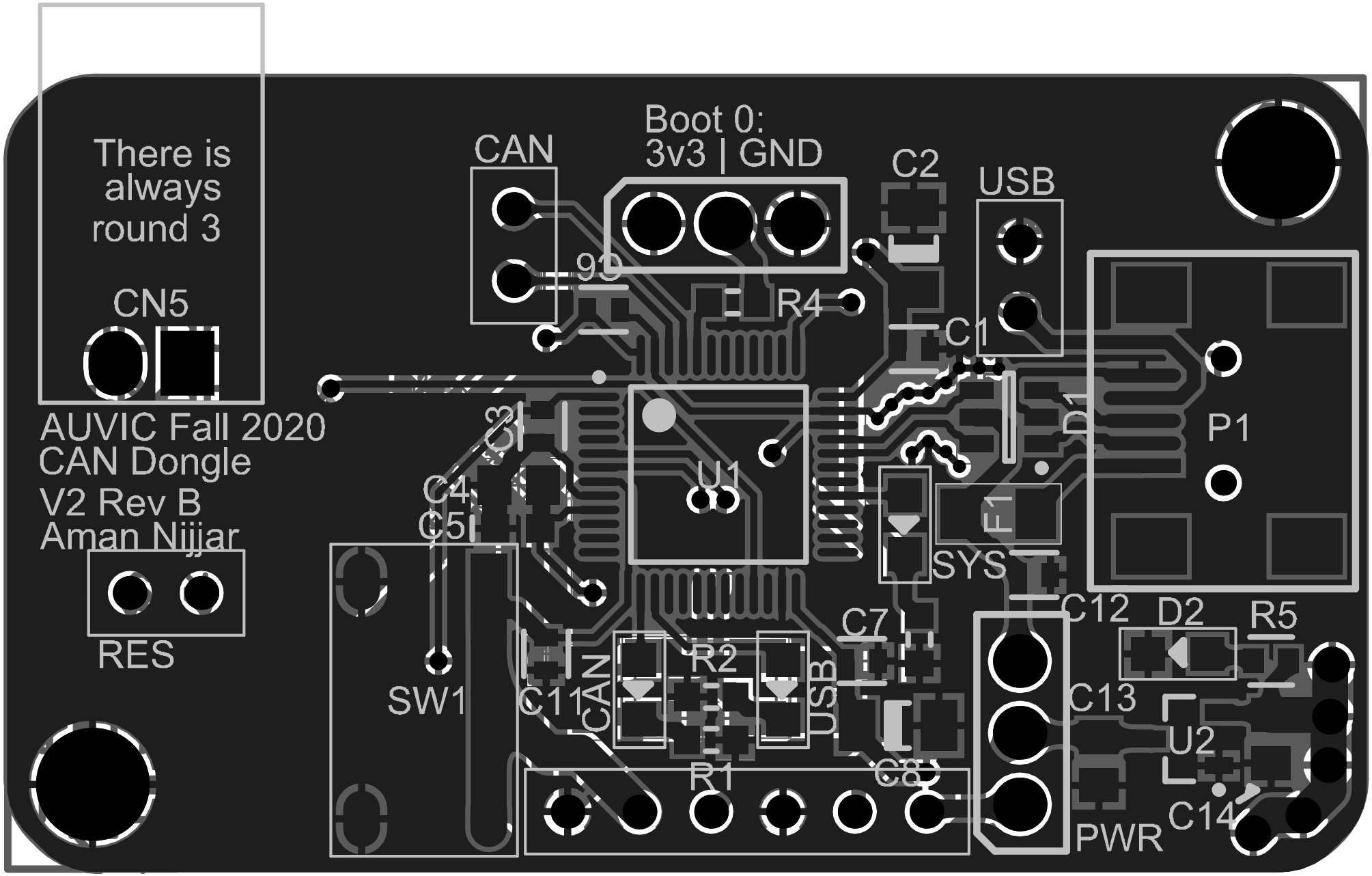
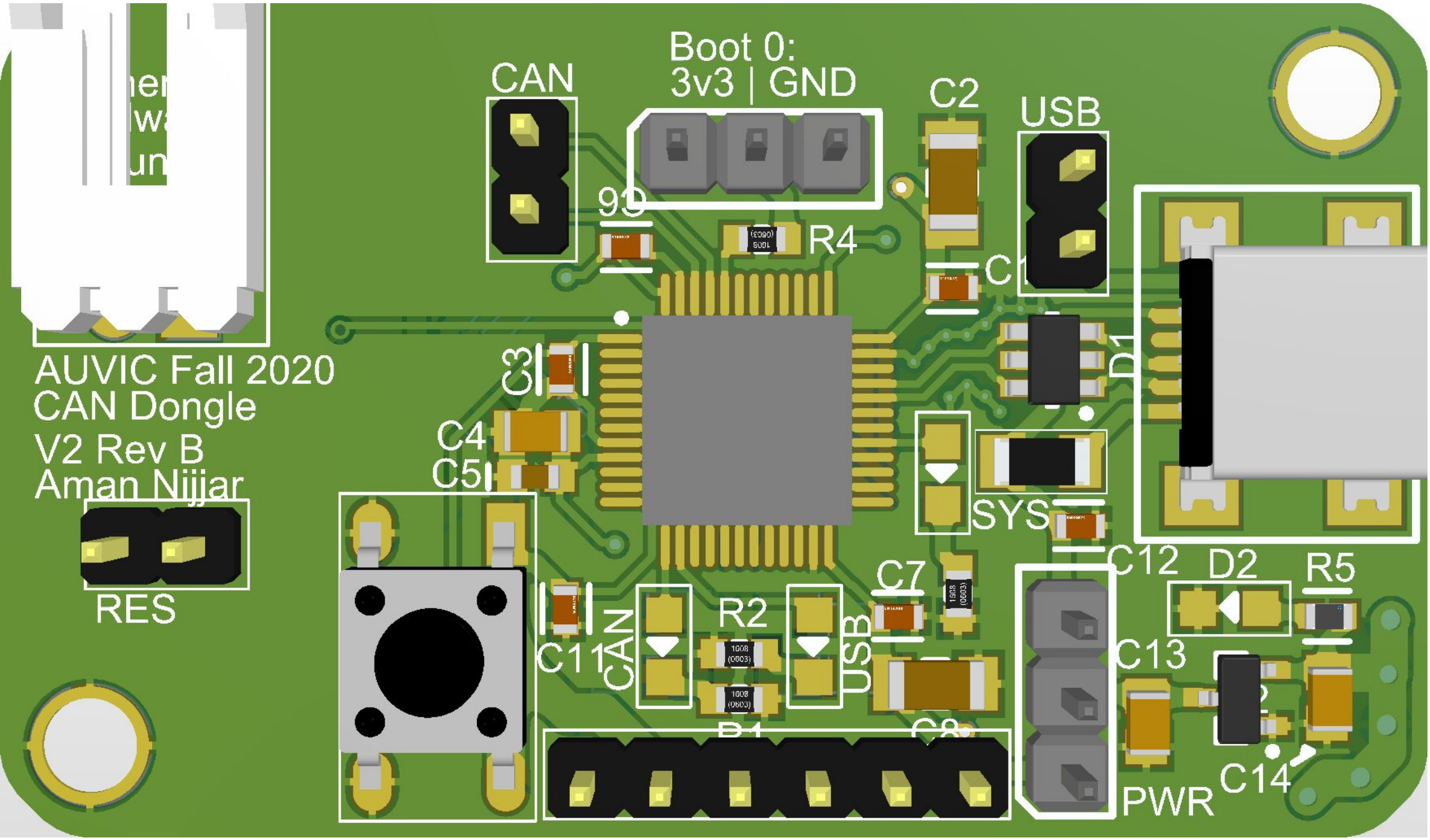

There is always round 3
CN5
AUVIC Fall 2020
CAN Dongle
V2 Rev B
Aman Nijjar
RES
CAN
Boot 0:
3v3 | GND
C2
USB
90
R4
C1
C3
C4
C5
U1
D1
P1
F1
SYS
C12
D2
R5
C7
R2
CAN
USB
SW1
C11
C13
U2
R1
C8
C14
PWR


CAN
Boot 0:
3v3 | GND
C2
USB
R4
C1
D1
C3
C4
C5
AUVIC Fall 2020
CAN Dongle
V2 Rev B
Aman Nijjar
SYS
C12
D2
R5
RES
C7
R2
C11
CAN
USB
C13
C14
PWR

Board Stack Report

Design Rules Verification Report

Filename : C:\Users\Public\Documents\Altium\Projects\CAN_Dongle\CAN_dongle_V3.Pcb

Warnings 0
Rule Violations 0

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=7mil) (All),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ((All))	0
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=10mil) (Max=50mil) (Preferred=12mil) (All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=20mil) (Conductor Width=10mil) (Air Gap=10mil) (Entries=4)	0
Hole Size Constraint (Min=7.87mil) (Max=248mil) (All)	0
Hole To Hole Clearance (Gap=10mil) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0mil) (All),(All)	0
Silk To Solder Mask (Clearance=8mil) (Disabled)(IsPad),(All)	0
Silk to Silk (Clearance=0mil) (All),(All)	0
Net Antennae (Tolerance=0mil) (All)	0
Height Constraint (Min=0mil) (Max=1000mil) (Prefered=500mil) (All)	0
Total	0