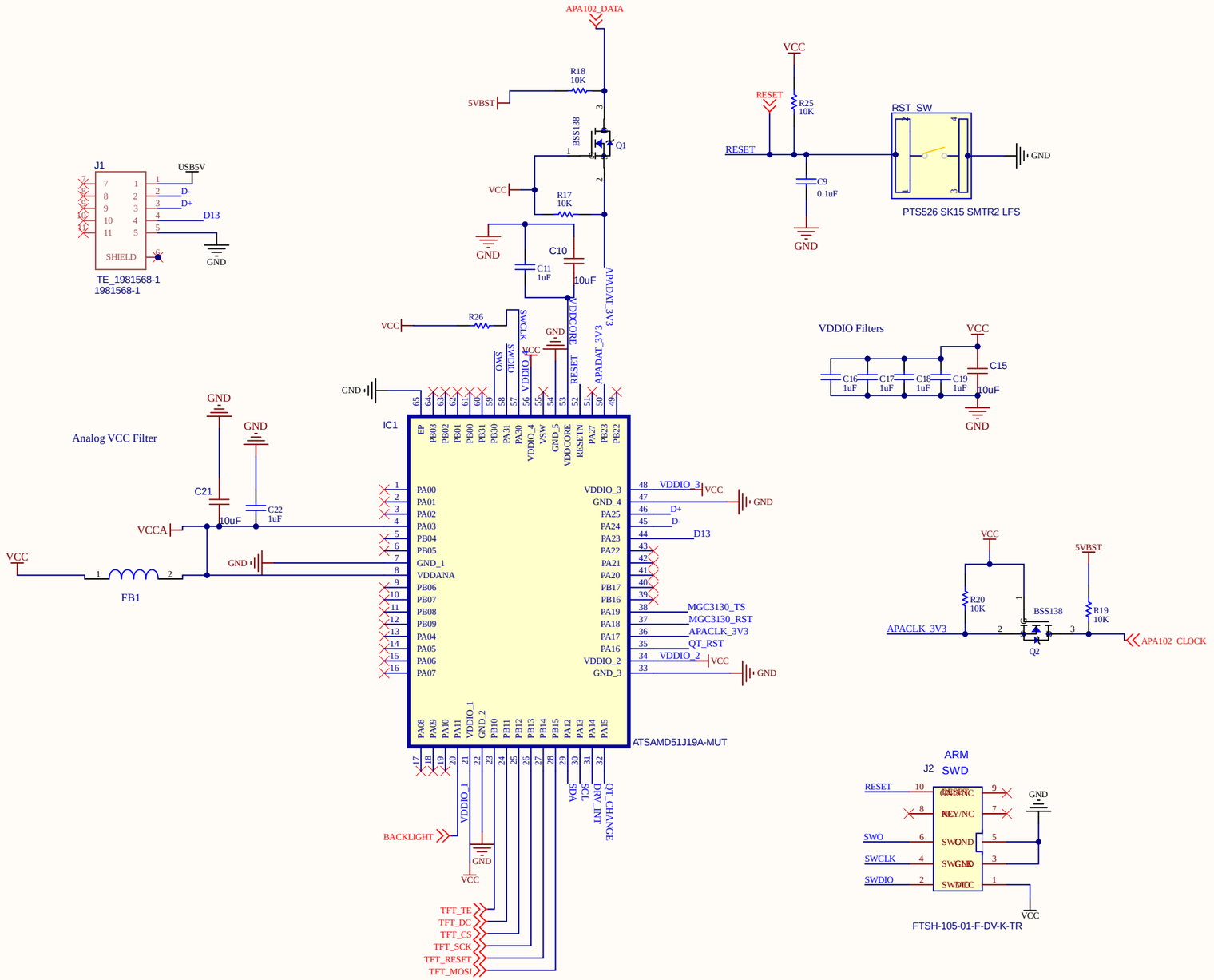
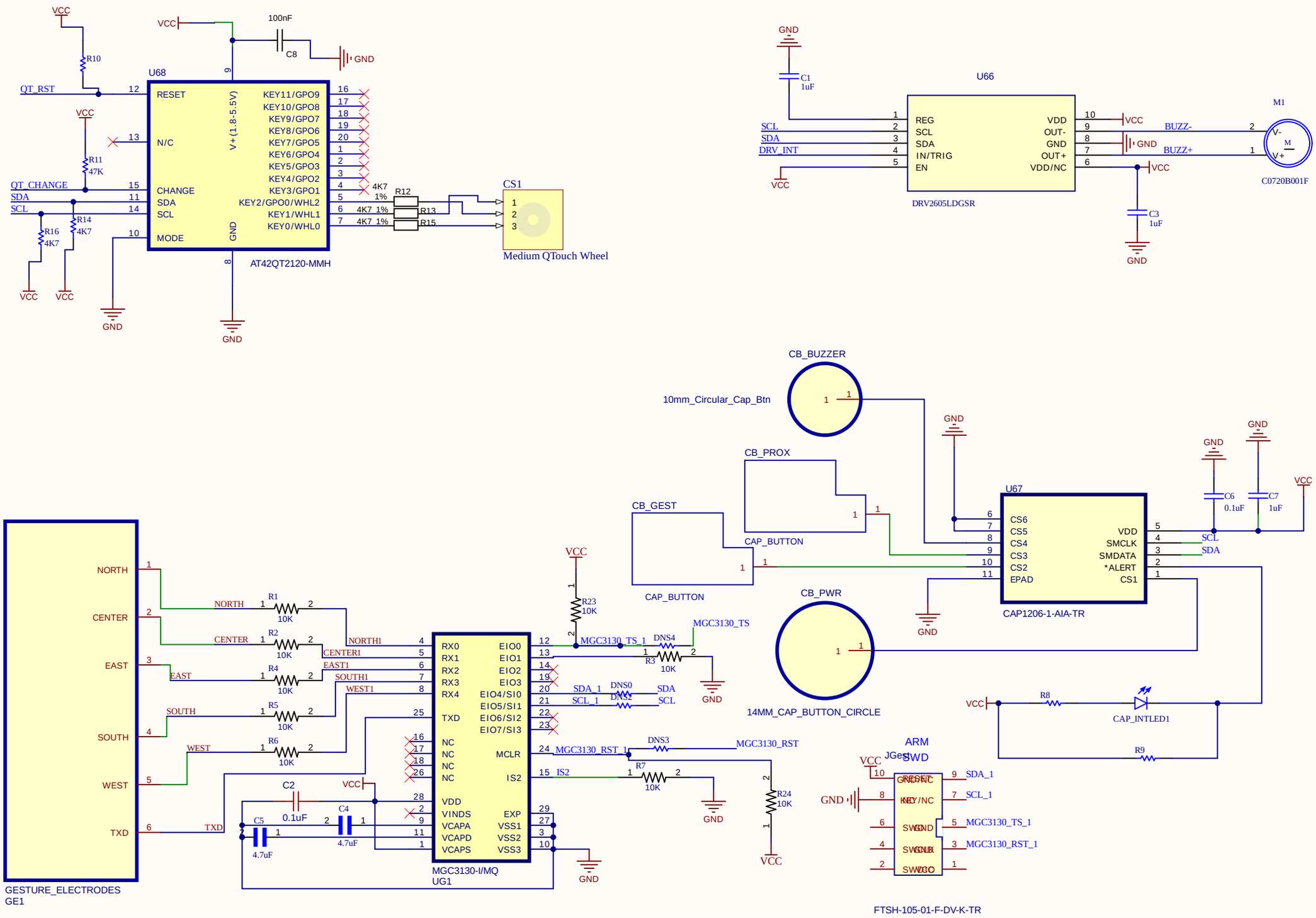
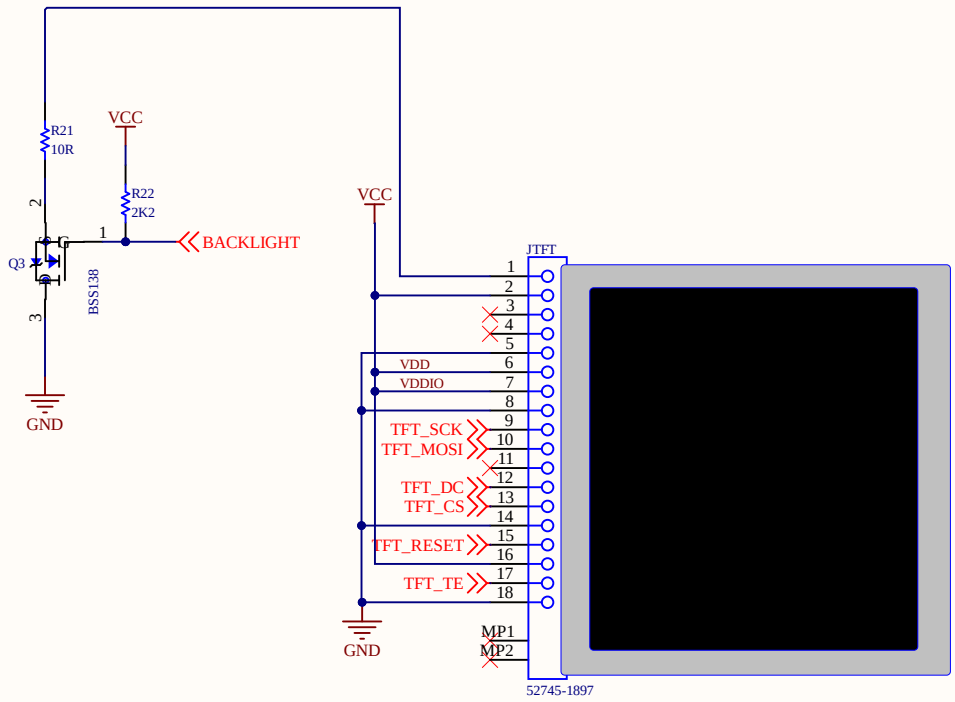


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Revision:	R1
Date:	10/08/2019
Time:	
Sheet	1 of 2
File:	Main.sch

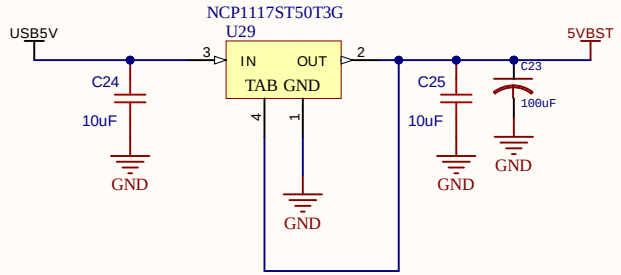
ALMAX EIS
903 5th Ave
Suite 101
Kirkland, WA
98033


U68
AT42QT2120-MMH
RESET
N/C
CHANGE
SDA
SCL
MODE
V+ (1.8-5.5V)
GND
KEY11/GPO9
KEY10/GPO8
KEY9/GPO7
KEY8/GPO6
KEY7/GPO5
KEY6/GPO4
KEY5/GPO3
KEY4/GPO2
KEY3/GPO1
KEY2/GPO0/WHL2
KEY1/WHL1
KEY0/WHL0
QT_RST
QT_CHANGE
SDA
SCL
R10
R11 47K
R14 4K7
R16 4K7
C8 100nF
R12 4K7 1%
R13 4K7 1%
R15 4K7 1%
CS1
Medium QTouch Wheel
U66
DRV2605LDGSR
REG
SCL
SDA
IN/TRIG
EN
VDD
OUT-
GND
OUT+
VDD/NC
DRV_INT
C1 1uF
C3 1uF
M1
C0720B001F
BUZZ-
BUZZ+
CB_BUZZER
10mm_Circular_Cap_Btn
CB_PROX
CB_GEST
CAP_BUTTON
CB_PWR
14MM_CAP_BUTTON_CIRCLE
U67
CAP1206-1-AIA-TR
CS6
CS5
CS4
CS3
CS2
EPAD
VDD
SMCLK
SMDATA
*ALERT
CS1
C6 0.1uF
C7 1uF
CAP_INTLED1
R8
R9
GESTURE_ELECTRODES
GE1
NORTH
CENTER
EAST
SOUTH
WEST
TXD
R1 10K
R2 10K
R4 10K
R5 10K
R6 10K
NORTH1
CENTER1
EAST1
SOUTH1
WEST1
MGC3130-I/MQ
UG1
RX0
RX1
RX2
RX3
RX4
TXD
NC
NC
NC
NC
VDD
VINDS
VCAPA
VCAPD
VCAPS
EIO0
EIO1
EIO2
EIO3
EIO4/SI0
EIO5/SI1
EIO6/SI2
EIO7/SI3
MCLR
IS2
EXP
VSS1
VSS2
VSS3
MGC3130_TS_1
MGC3130_TS
DNS4
R3 10K
SDA_1
SCL_1
DNS0
DNS1
SDA
SCL
MGC3130_RST_1
MGC3130_RST
DNS3
R7 10K
R23 10K
R24 10K
C2 0.1uF
C4 4.7uF
C5 4.7uF
ARM SWD JGes
FTSH-105-01-F-DV-K-TR
SDA_1
SCL_1
MGC3130_TS_1
MGC3130_RST_1

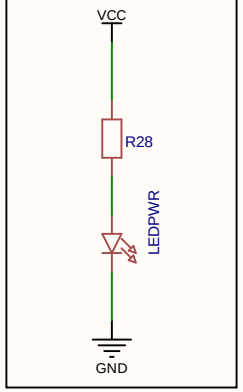


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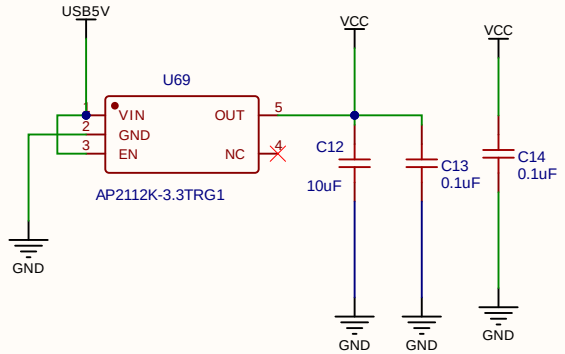
5V Voltage Regulator



POWER LED



3V3 Voltage Regulator



WHEEL GLITCH/TESTER LED

APA102_DATA

APA102_CLOCK

D1 — SDI, VDD, GND, SDO, CKI, CKO

OUTER WHEEL

GND

D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 — SDI, VDD, GND, SDO, CKI, CKO

5VBST

GND

D12 D13 D14 D15 D16 D17 D18 D19 D20 D21 — SDI, VDD, GND, SDO, CKI, CKO

5VBST

GND

D22 D23 D24 D25 D26 D27 D28 D29 D30 D31 — SDI, VDD, GND, SDO, CKI, CKO

5VBST

GND

D32 D33 D34 D35 D36 D37 D38 D39 D40 D41 — SDI, VDD, GND, SDO, CKI, CKO

5VBST

PROX BUTTON

D54 — SDI, VDD, GND, SDO, CKI, CKO

GESTURE BUTTON

GND

D55 — SDI, VDD, GND, SDO, CKI, CKO

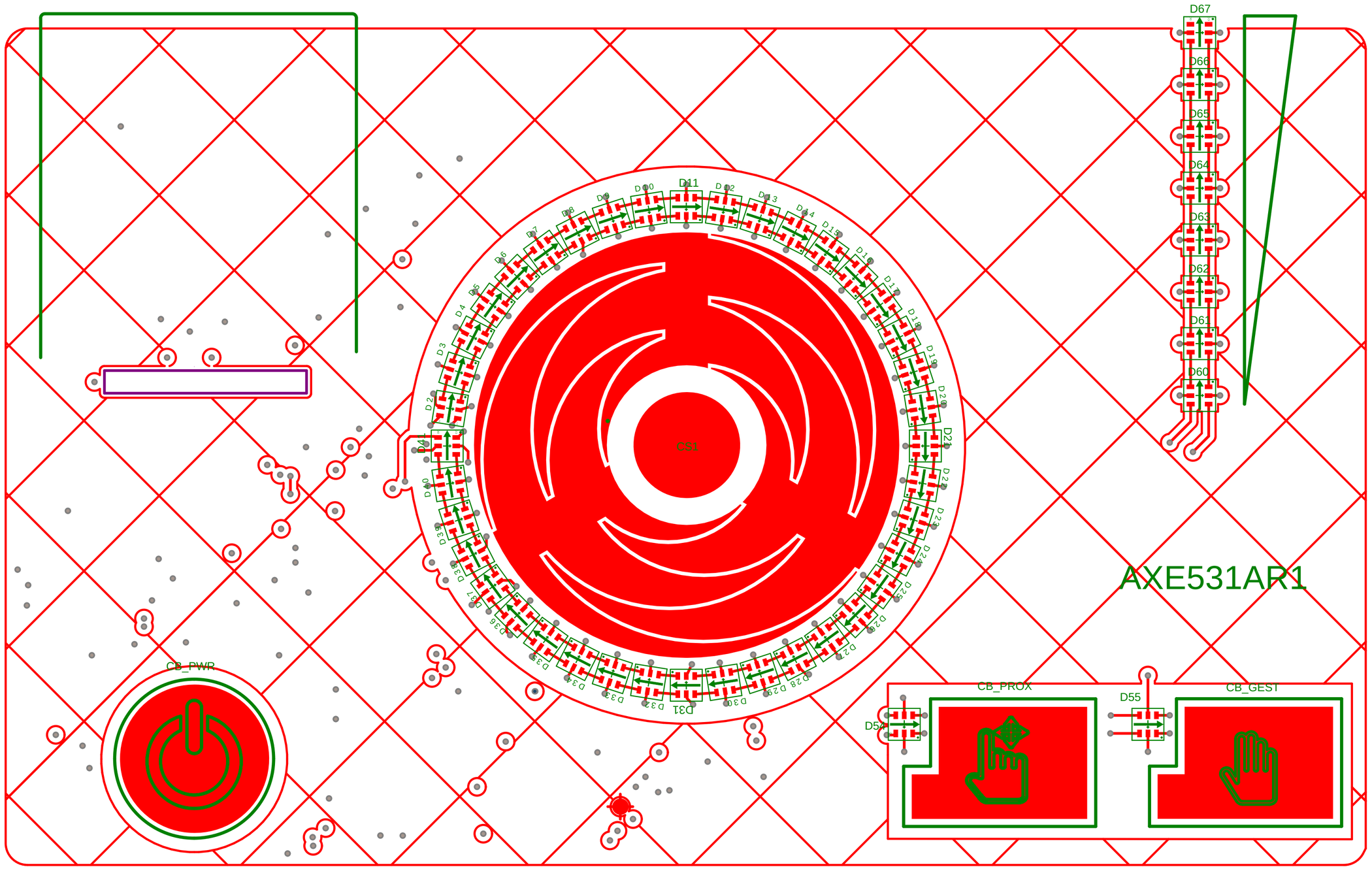
5VBST

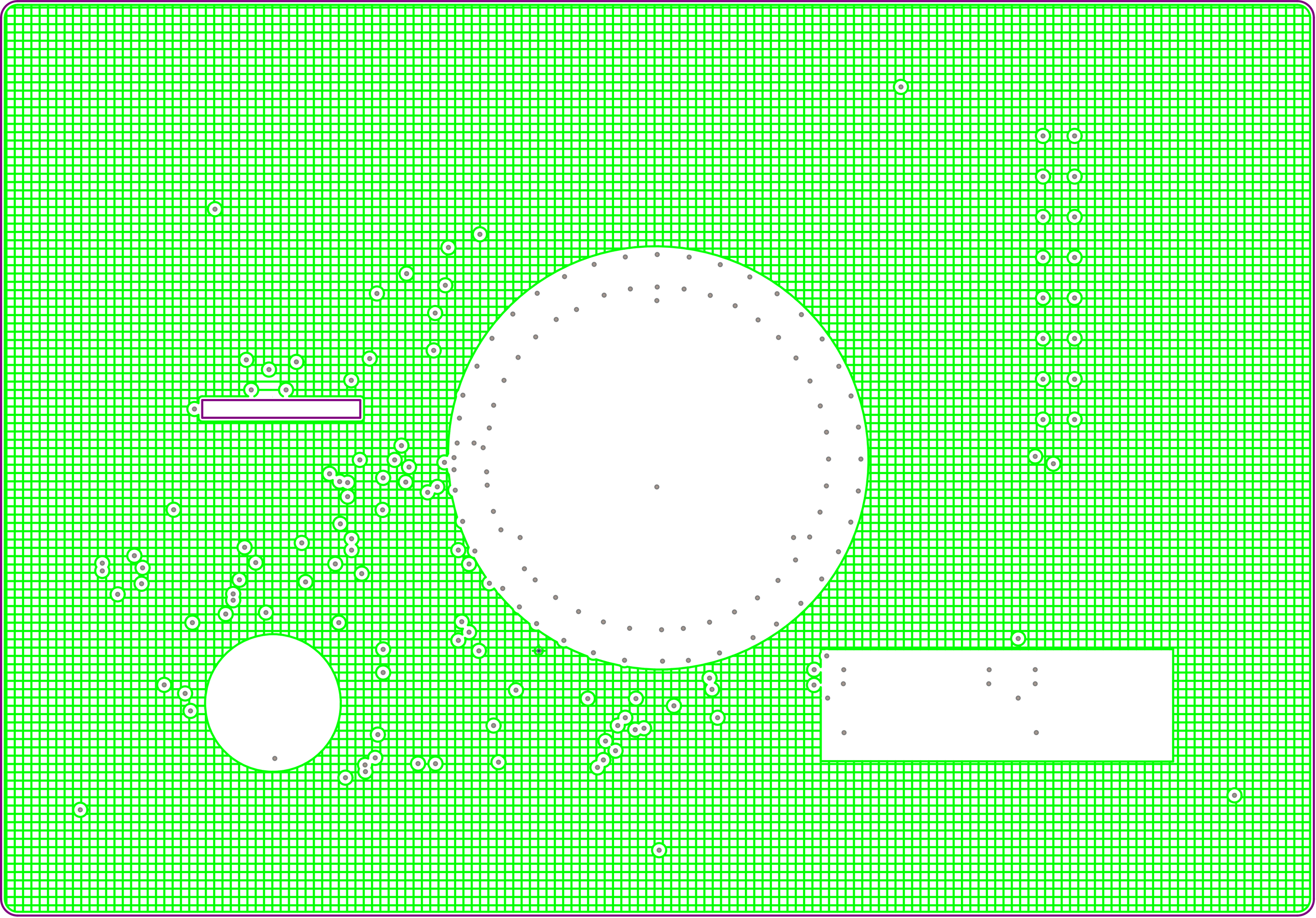
PROXIMITY LEDS

GND

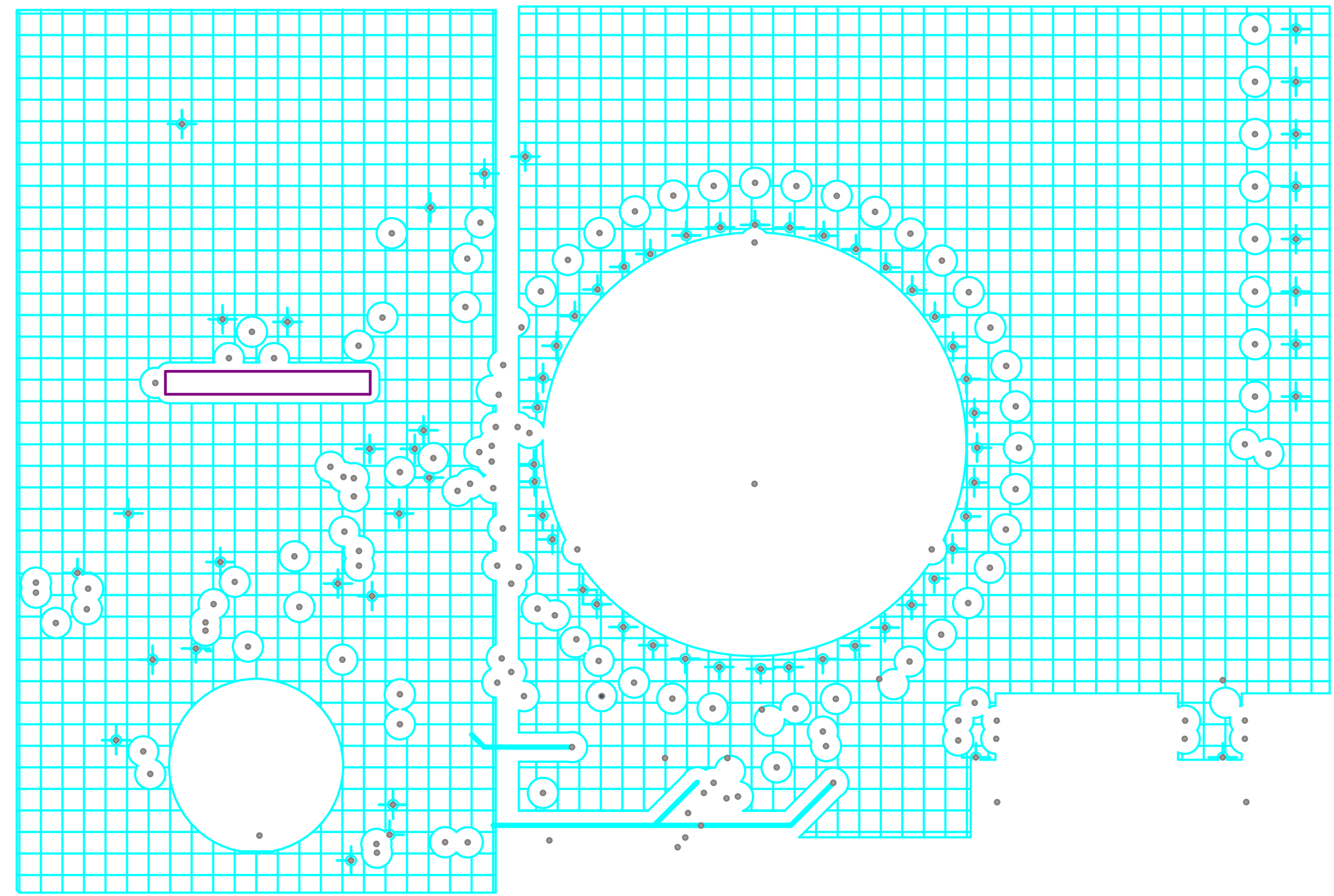
D60 D61 D62 D63 D64 D65 D66 D67 — SDI, VDD, GND, SDO, CKI, CKO

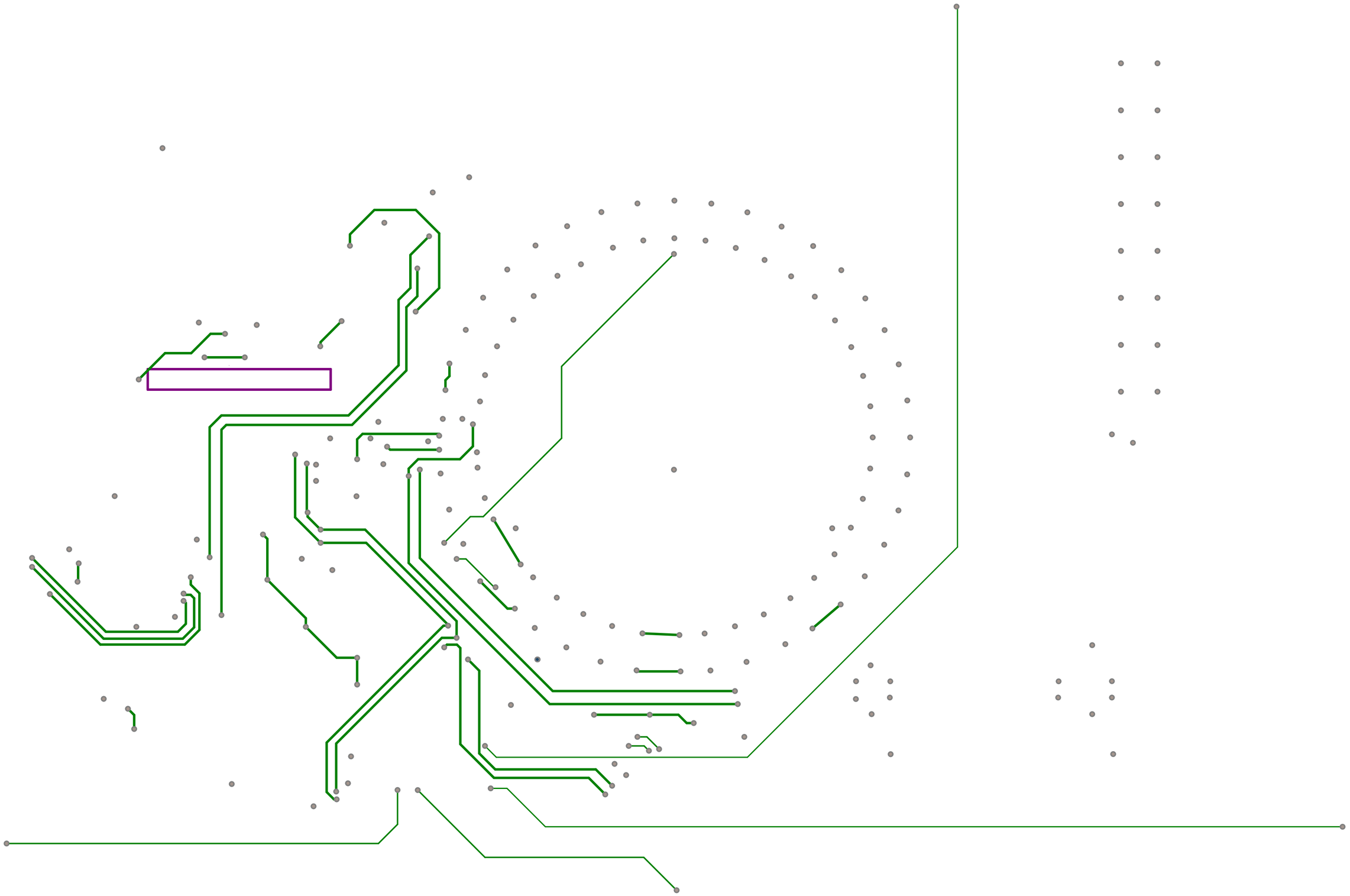
5VBST

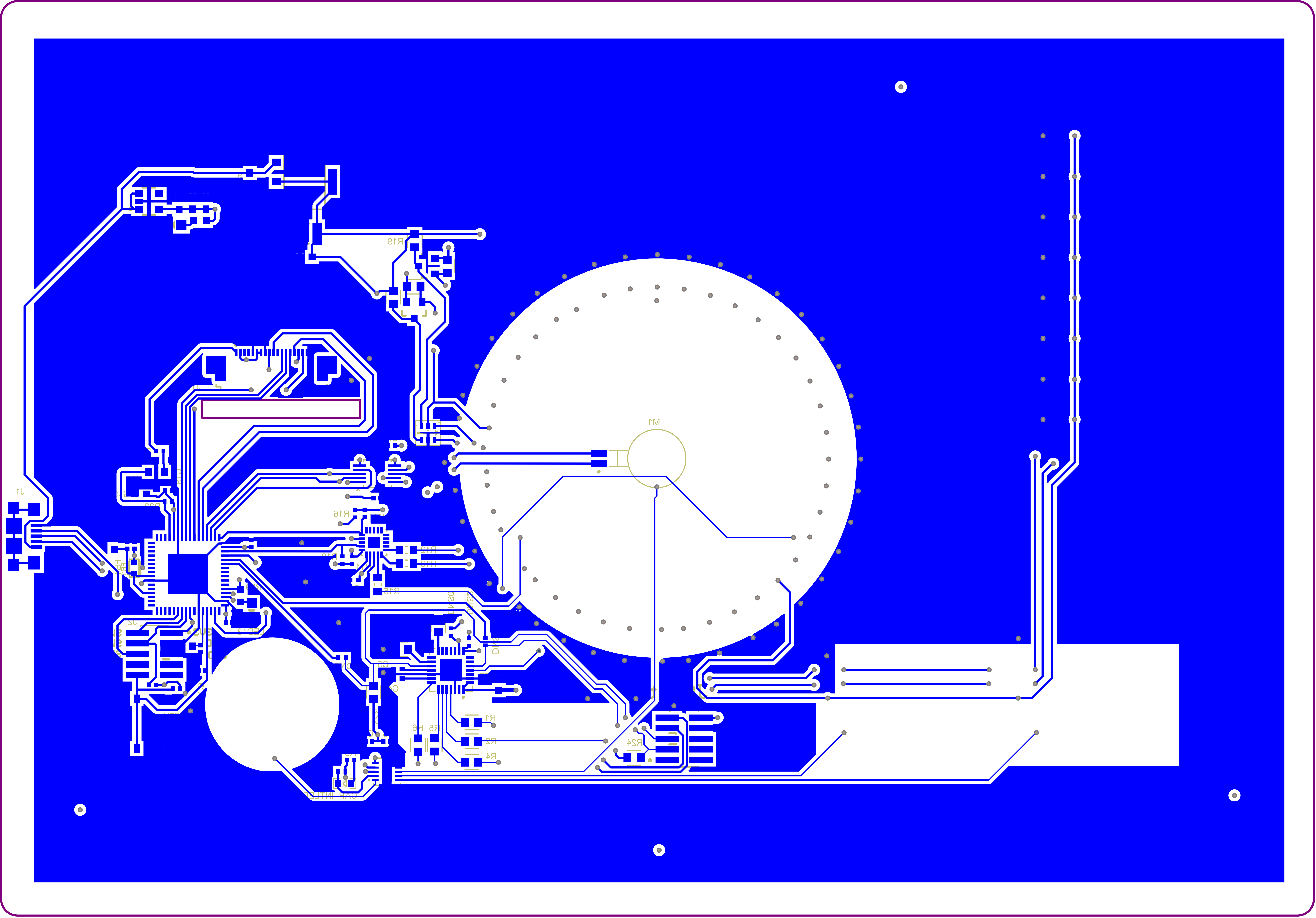

D67
D66
D65
D64
D63
D62
D61
D60
D11
CS1
D54
D55
CB_PWR
CB_PROX
CB_GEST
AXE531AR1

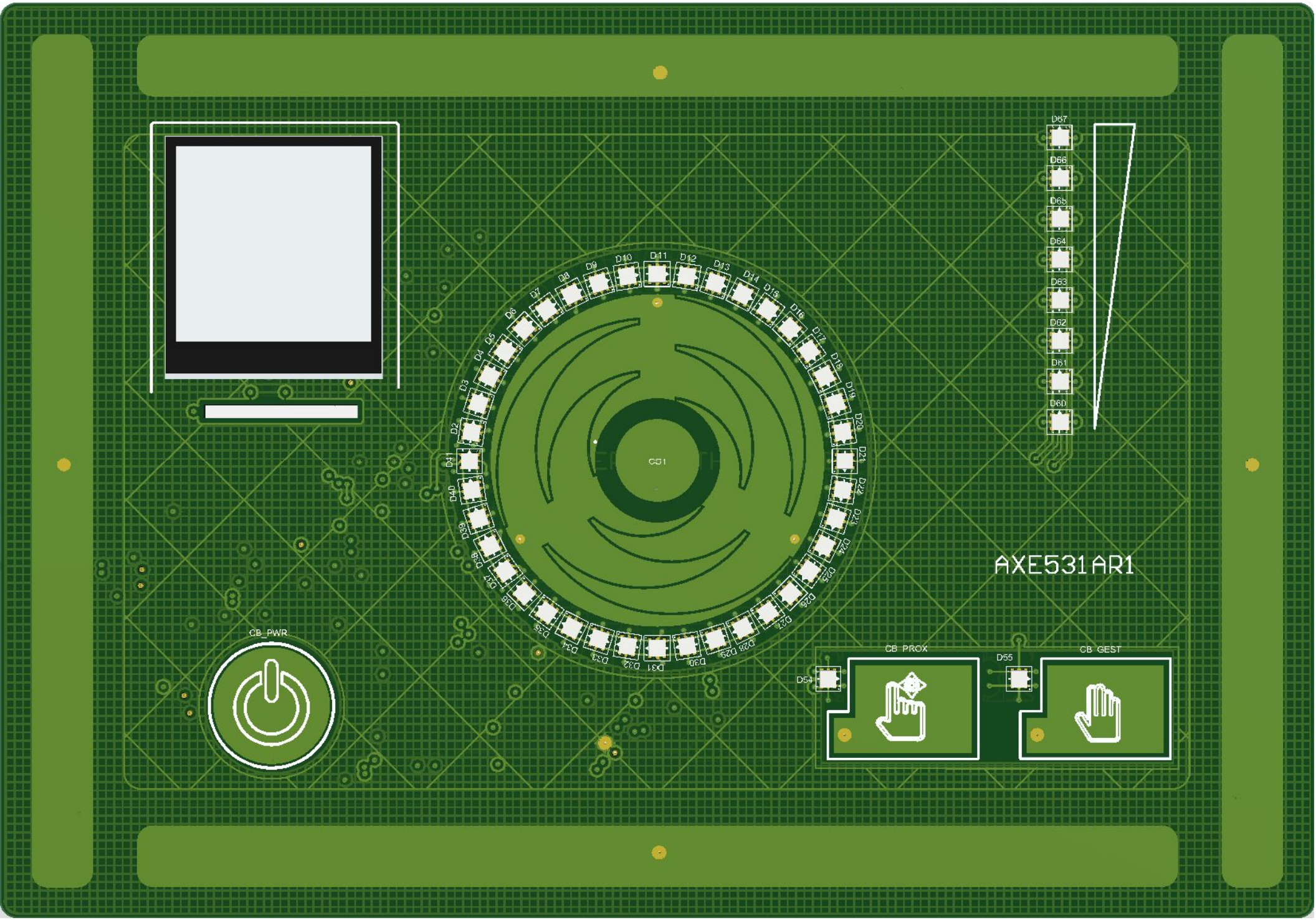


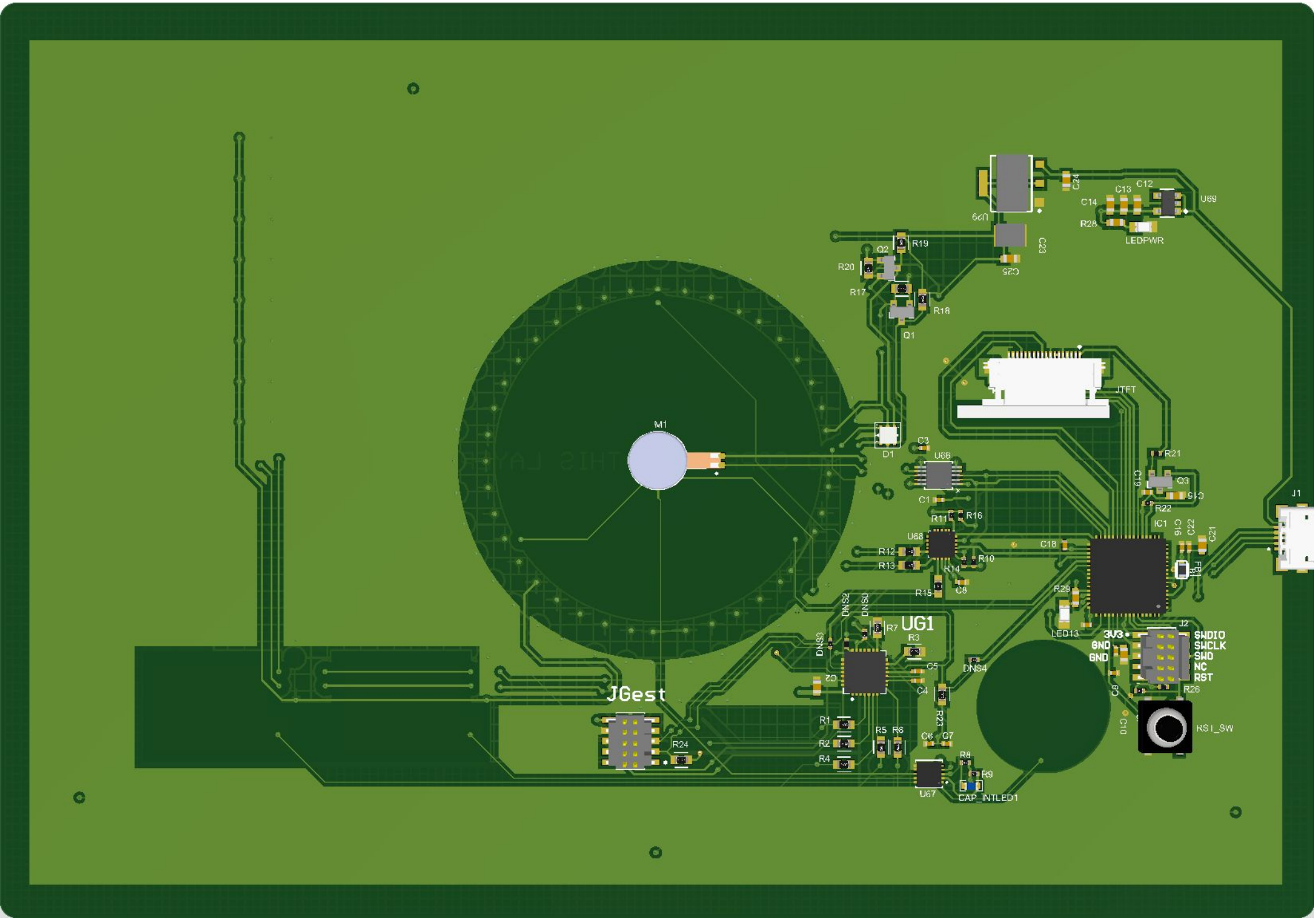
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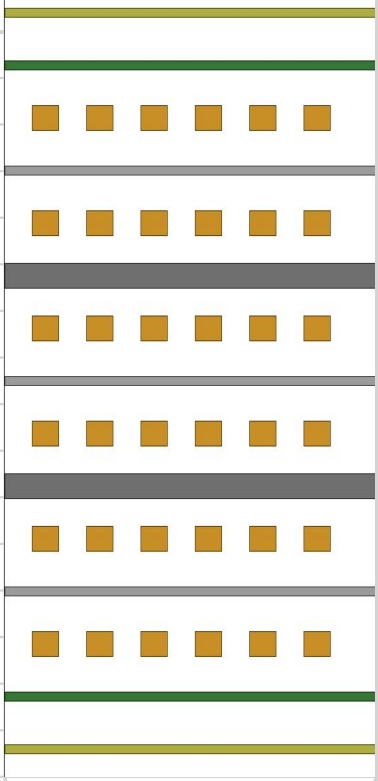





D67
D66
D65
D64
D63
D62
D61
D60
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
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D14
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D28
D29
D30
D31
D32
D33
D34
D35
D36
D37
D38
D39
D40
CB1
AXE531AR1
CB_PWR
CB_PROX
D54
D55
CB_GEST


M1
JGest
UG1
JTFT
LEDPWR
LED13
RST_SW
SWDIO
SWCLK
SWO
NC
RST
3V3
GND
GND
U69
U66
U68
U67
IC1
J1
J2
Q1
Q2
Q3
D1
R19
R20
R17
R18
R21
R22
R16
R11
R12
R13
R14
R10
R15
R29
R26
R24
R1
R2
R4
R5
R6
R23
R7
R3
R8
R9
C1
C2
C3
C4
C5
C6
C7
C8
C10
C12
C13
C14
C16
C18
C19
C21
C22
C23
C24
C25
DNS0
DNS2
DNS3
DNS4
CAP_INTLED1

Board Stack Report

Stack Up		Layer Stack			
Layer	Board Layer Stack	Name	Material	Thickness	Constant
1		Top Paste			
2		Top Overlay			
3		Top Solder	SM-003	0.010mm	4
4		Keypad Side	Copper	0.018mm	
5		Dielectric 2	PP-006	0.935mm	4.1
6		TXD	Copper	0.035mm	
7		Dielectric 3	Core-035	0.457mm	4.8
8		EMPTY - NO COPPER	Copper	0.004mm	
9		Dielectric 5	PP-006	0.071mm	4.1
10		POWER	Copper	0.035mm	
11		Dielectric 6	Core-035	0.457mm	4.8
12		SIGNAL	Copper	0.035mm	
13		Dielectric 7	PP-006	0.071mm	4.1
14		Components & GND Side	Copper	0.018mm	
15		Bottom Solder	SM-003	0.010mm	4
16		Bottom Overlay			
17		Bottom Paste			
	Height : 2.157mm				