

1	2	3	4	5	6
A					A
B					B
C					C
D					D
1	2	3	4	5	6

Designed By @NoahGWood for
HackThisPhone.com

Sheet: /UART/
File: uart.sch

Title: 0x0A SmartPhone

Size: A4	Date: 2022-09-01	Rev: 1
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2		Id: 2/14

A

B



A

B



D

Rev: 1
Id: 3/14

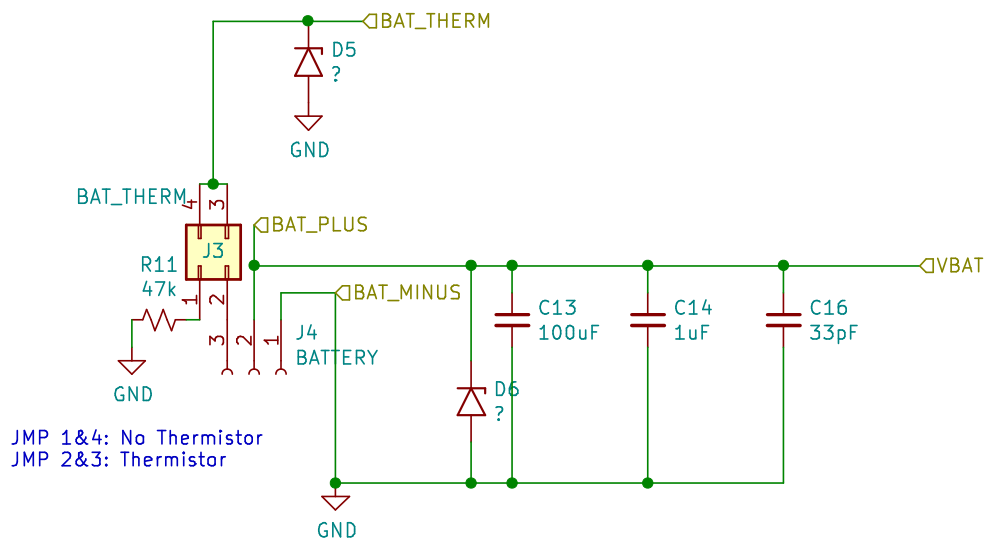
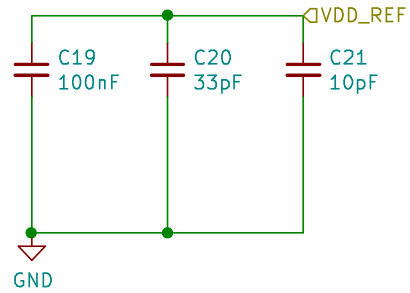
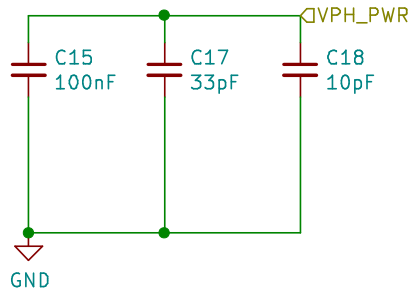
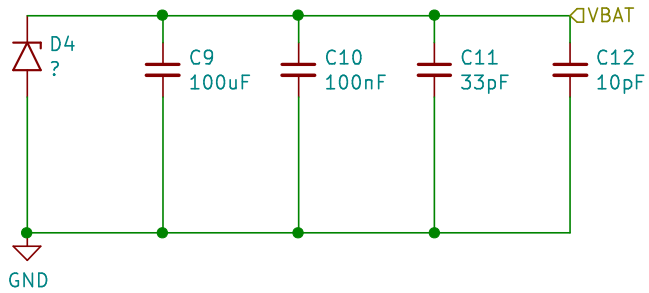
1	2	3	4	5	6
A					A
B					B
C					C
D					D
1	2	3	4	5	6

Designed By @NoahGWood for
HackThisPhone.com

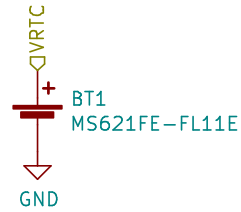
Sheet: /GPIO/
File: gpio.sch

Title: 0x0A SmartPhone

Size: A4	Date: 2022-09-01	Rev: 1
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2		Id: 4/14



JMP 1&4: No Thermistor
JMP 2&3: Thermistor



MS621FE-FL11E From Seiko
Recommended By SoC Vendor

Designed By @NoahGWood for
HackThisPhone.com

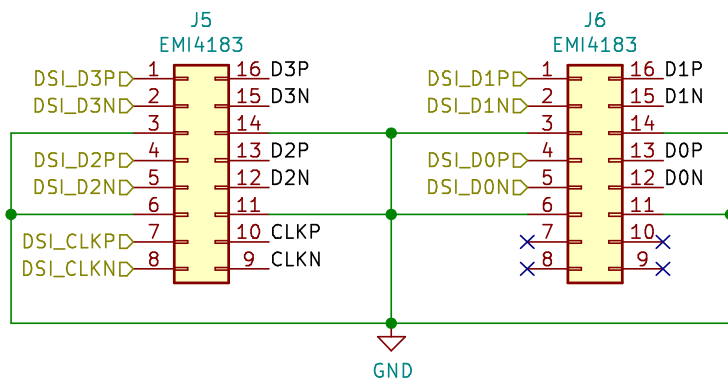
Sheet: /Power/
File: pwr.sch

Title: 0x0A SmartPhone

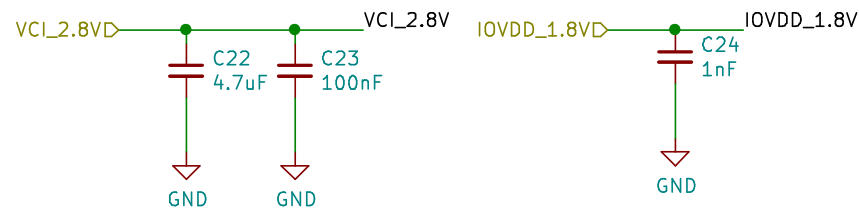
Size: A4	Date: 2022-09-01	Rev: 1
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2		Id: 5/14

EMI Filtering

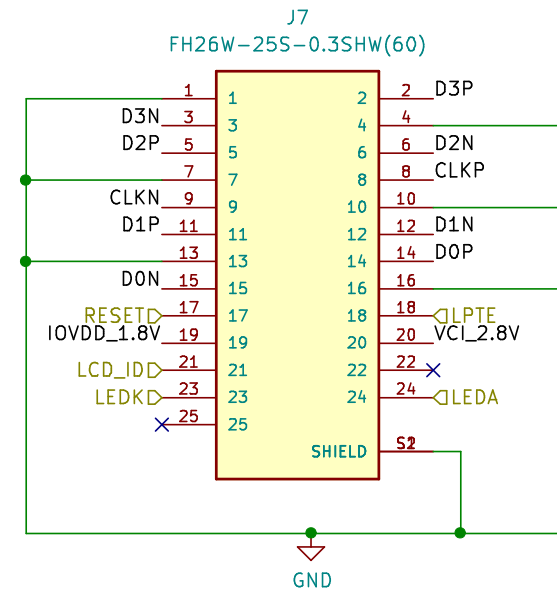
EMI1483 (or) EMI1493
IC has ESD protection to $\pm 15\text{kv}$



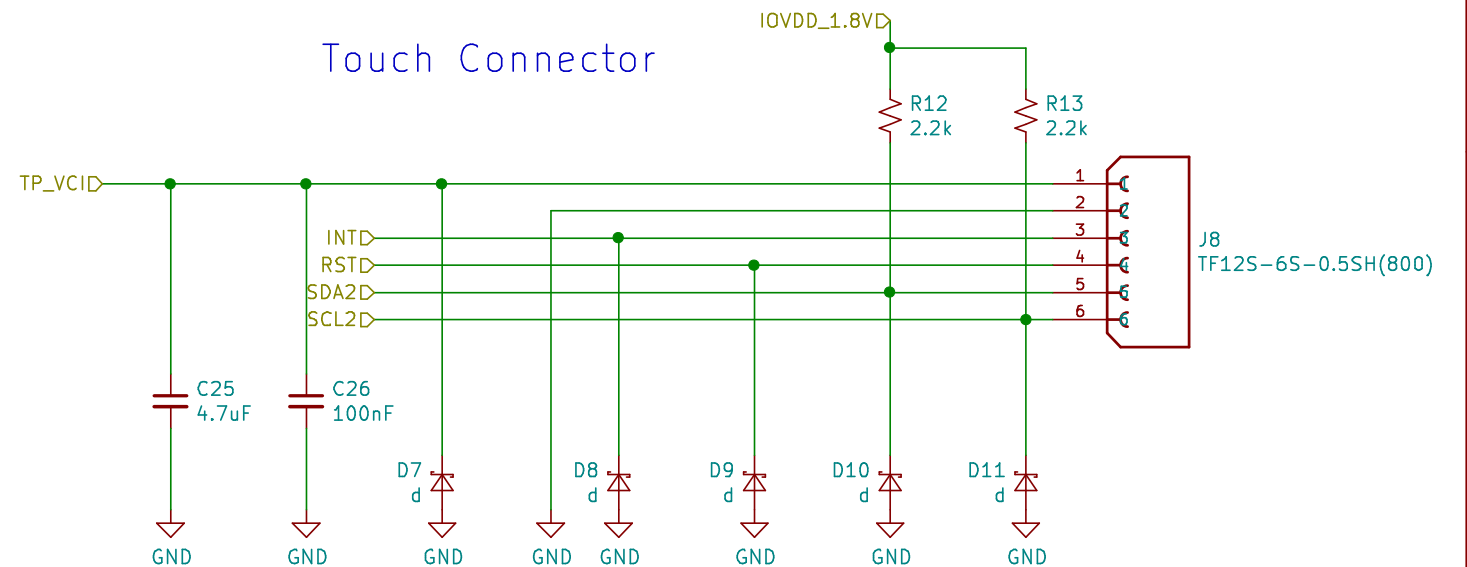
Power Decoupling



LCD Connector



Touch Connector



Designed By @NoahGWood for
HackThisPhone.com

Sheet: /LCD 1/
File: display.sch

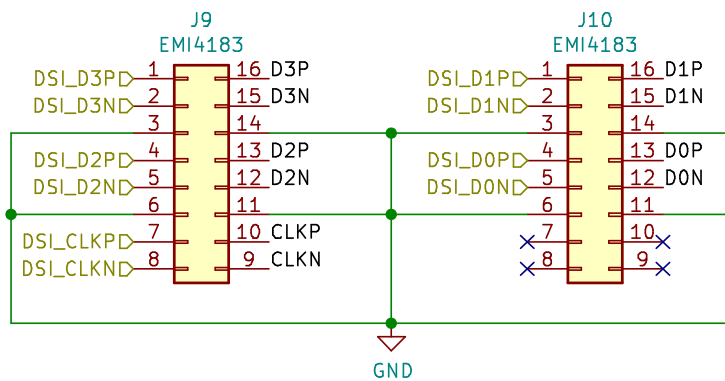
Title: 0x0A SmartPhone

Size: A4 Date: 2022-09-01
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

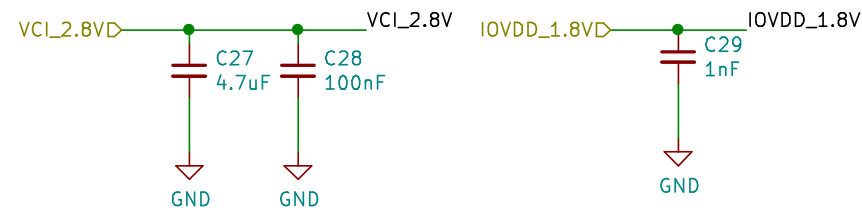
Rev: 1
Id: 6/14

EMI Filtering

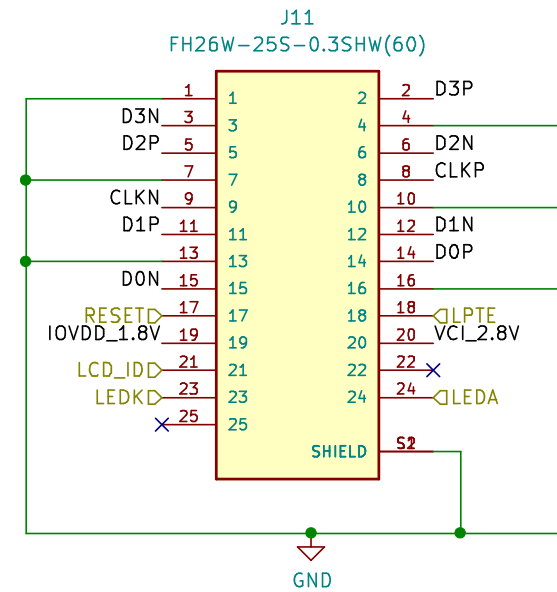
EMI1483 (or) EMI1493
IC has ESD protection to $\pm 15\text{kv}$



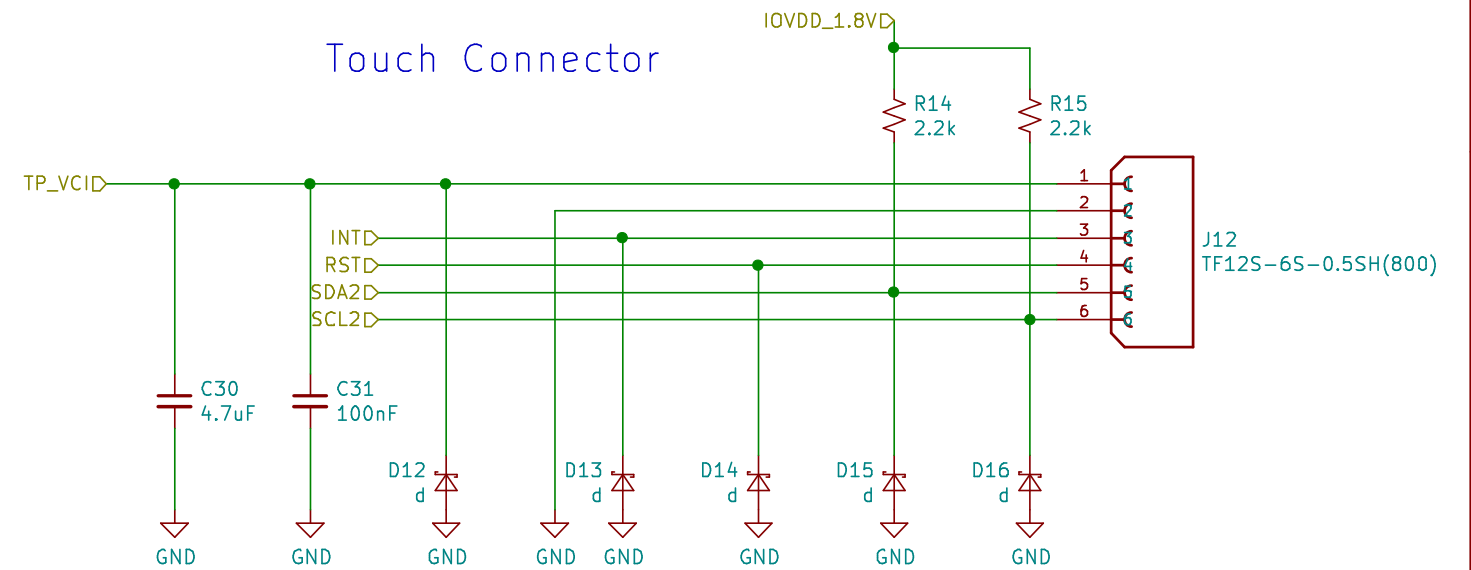
Power Decoupling



LCD Connector



Touch Connector



Designed By @NoahGWood for
HackThisPhone.com

Sheet: /LCD 2 (optional)/
File: display.sch

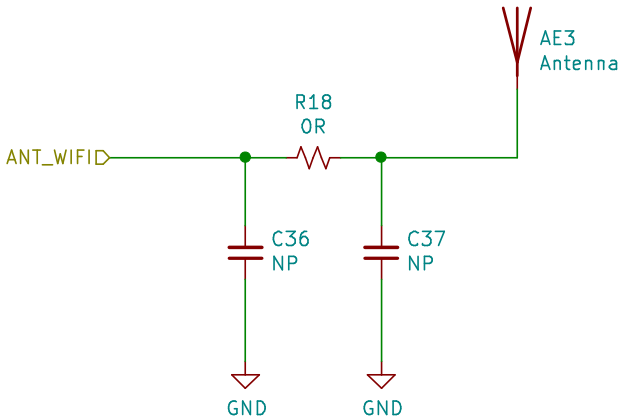
Title: 0x0A SmartPhone

Size: A4 Date: 2022-09-01
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

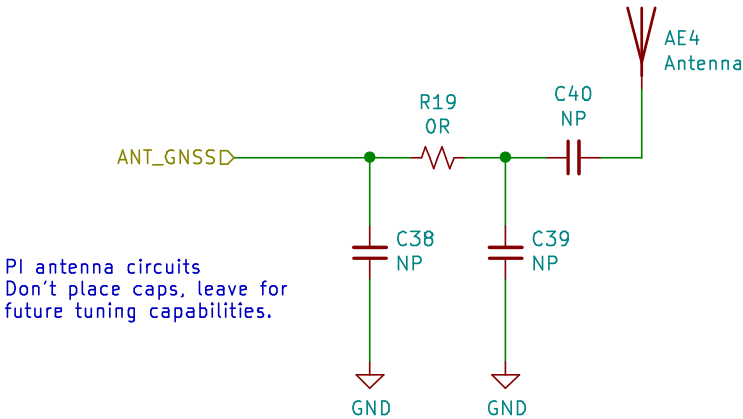
Rev: 1
Id: 7/14

NP = Not Populated
0R = 0 ohm resitor (jumped)

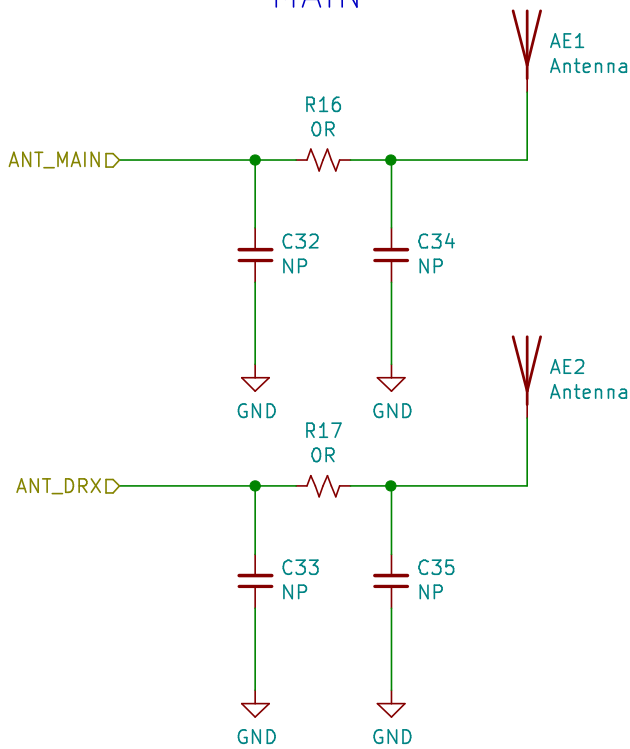
WIFI



GNSS



MAIN

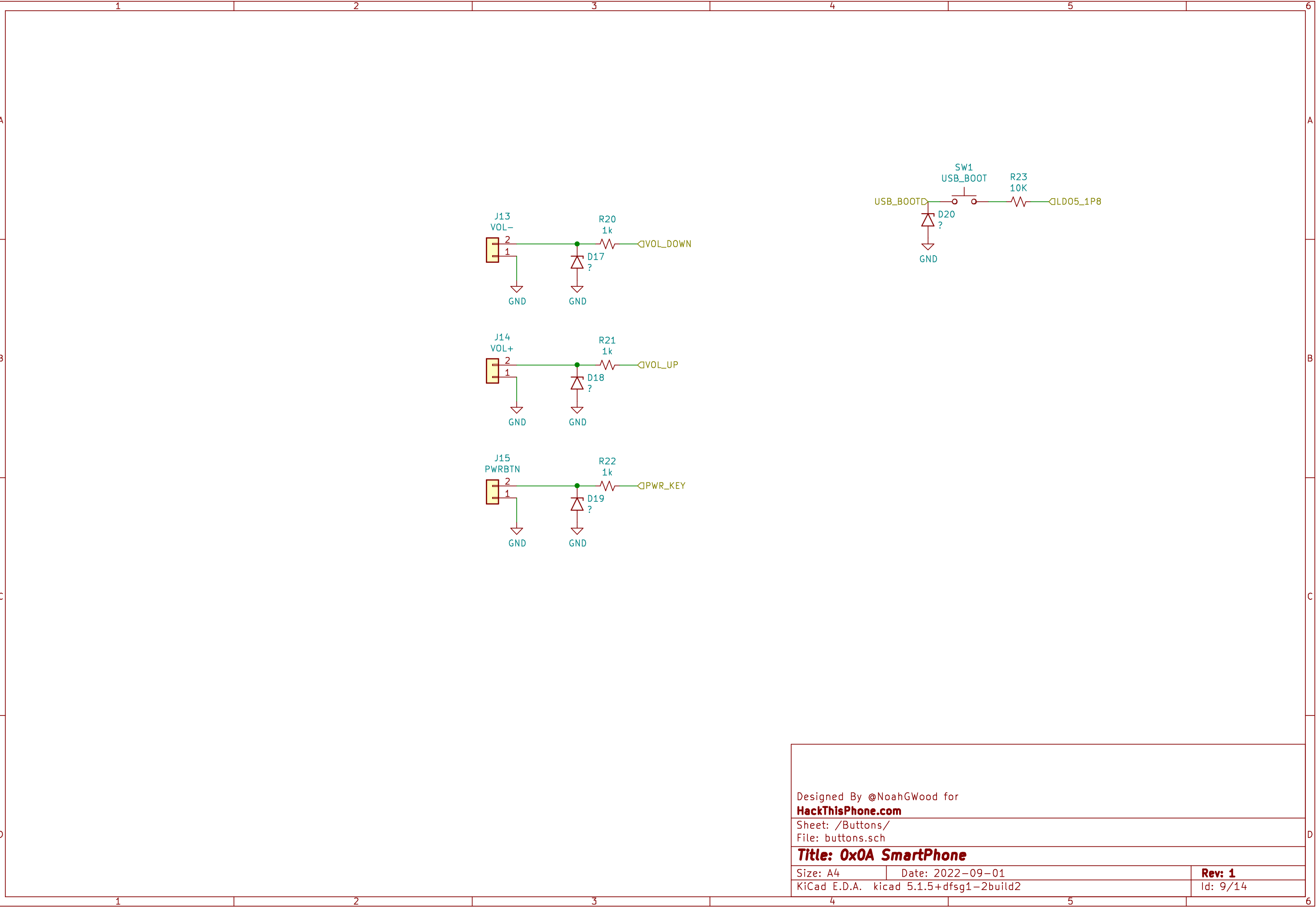


Designed By @NoahGWood for
HackThisPhone.com

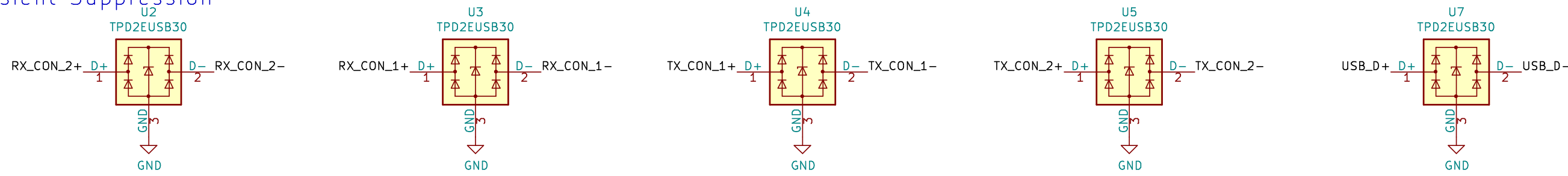
Sheet: /Antennas/
File: antenna.sch

Title: 0x0A SmartPhone

Size: A4	Date: 2022-09-01	Rev: 1
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2		Id: 8/14

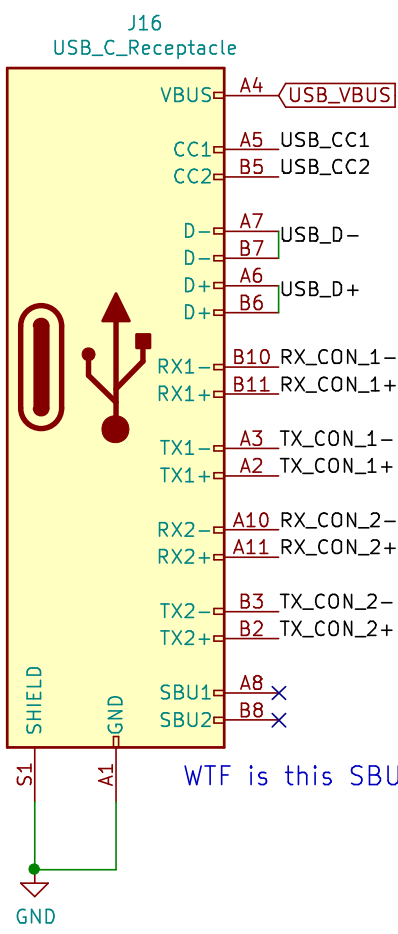


Transient Suppression



Maybe find a single IC to handle these data lines?

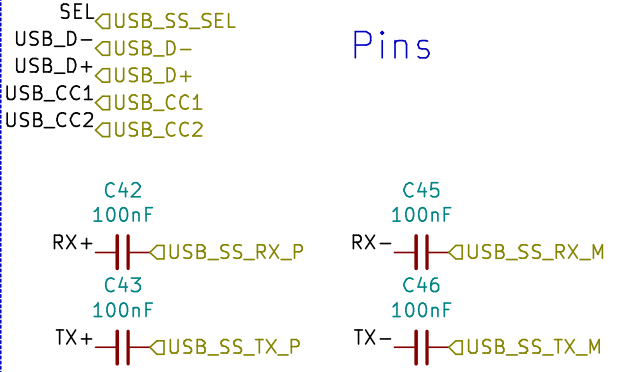
Connector



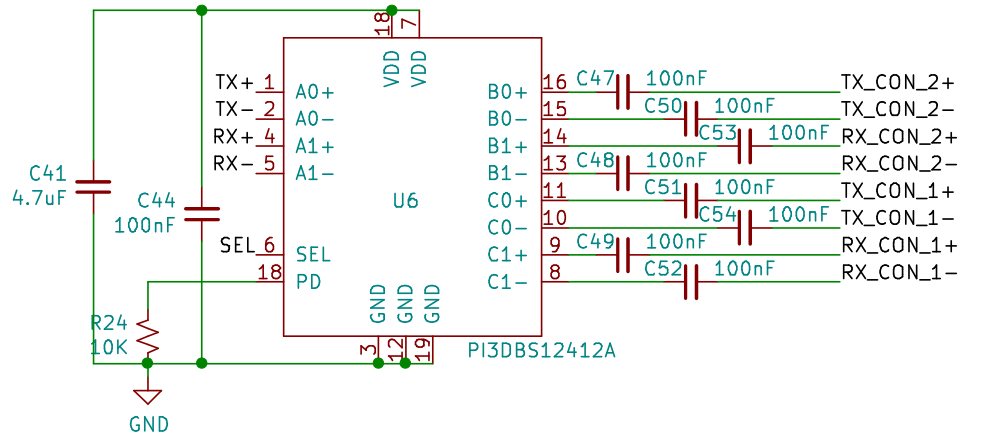
Probably should add some TVS diodes on VBUS, CC1, & CC2

WTF is this SBU shit for anyway?

Pins



MUX



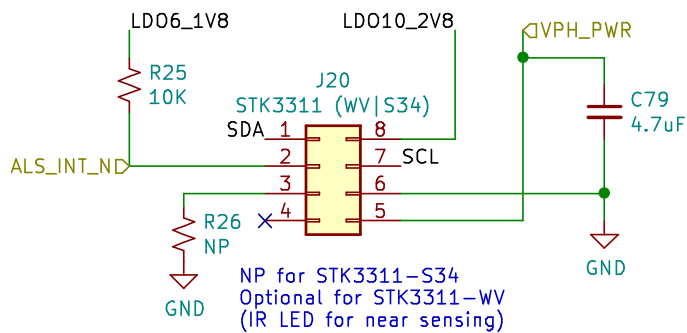
USB-C Super Speed Circuit
Designed By @NoahGWood for
HackThisPhone.com

Sheet: /USB/
File: usb.sch

Title: 0x0A SmartPhone

Size: A4	Date: 2022-09-01	Rev: 1
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2	Id: 10/14	

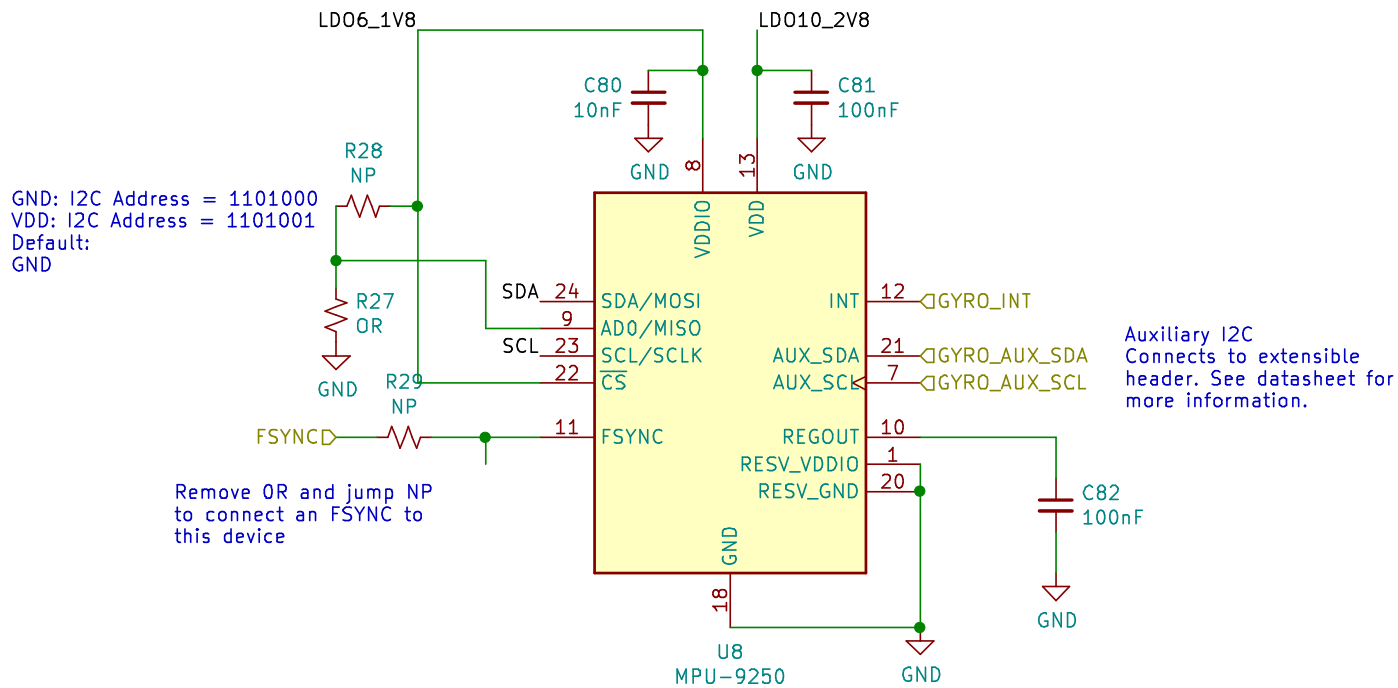
Ambient Light Sensor



SCL \rightarrow SENSOR_I2C_SCL
SDA \rightarrow SENSOR_I2C_SDA

LD010_2V8 \rightarrow LD010_2V8
LD06_1V8 \rightarrow LD06_1V8

Gyroscopic/Acceleration Sensor



Designed By @NoahGWood for
HackThisPhone.com

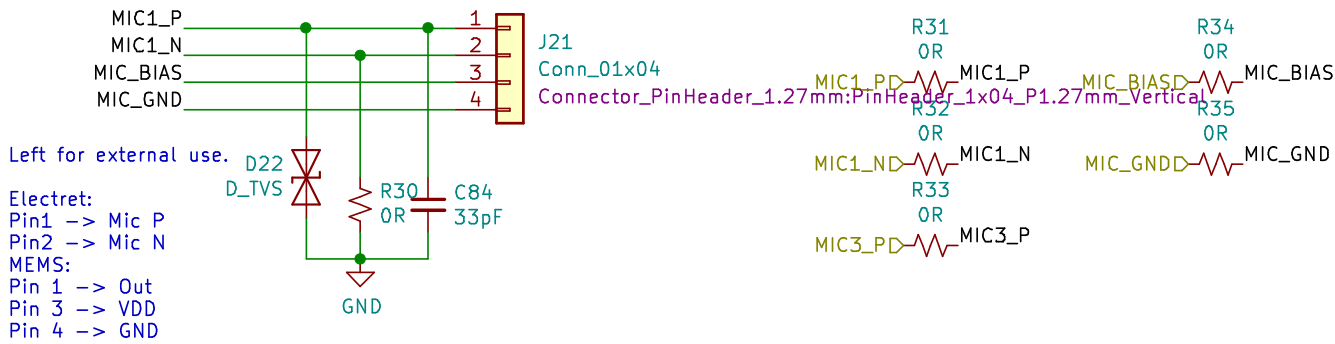
Sheet: /Sensors/
File: sensors.sch

Title: 0x0A SmartPhone

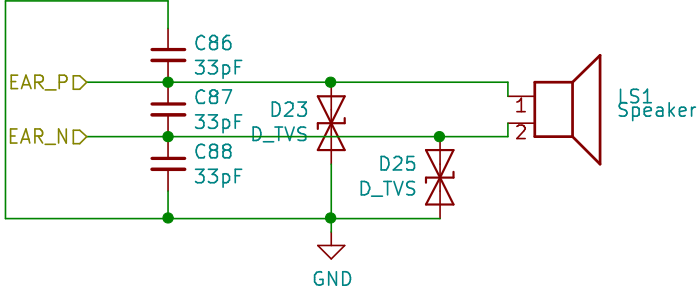
Size: A4 Date: 2022-09-01
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1
Id: 12/14

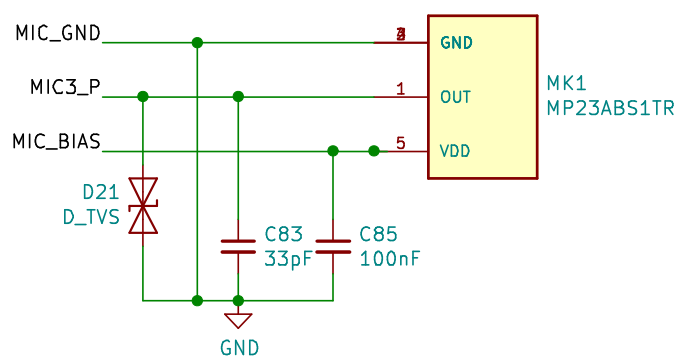
Extra Mic Pins



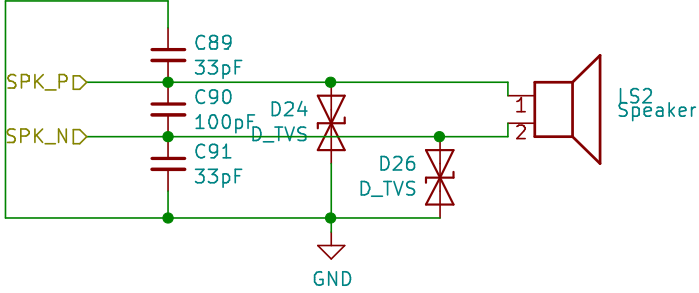
Top Speaker



Embedded MEMS Mic



Loud Speaker

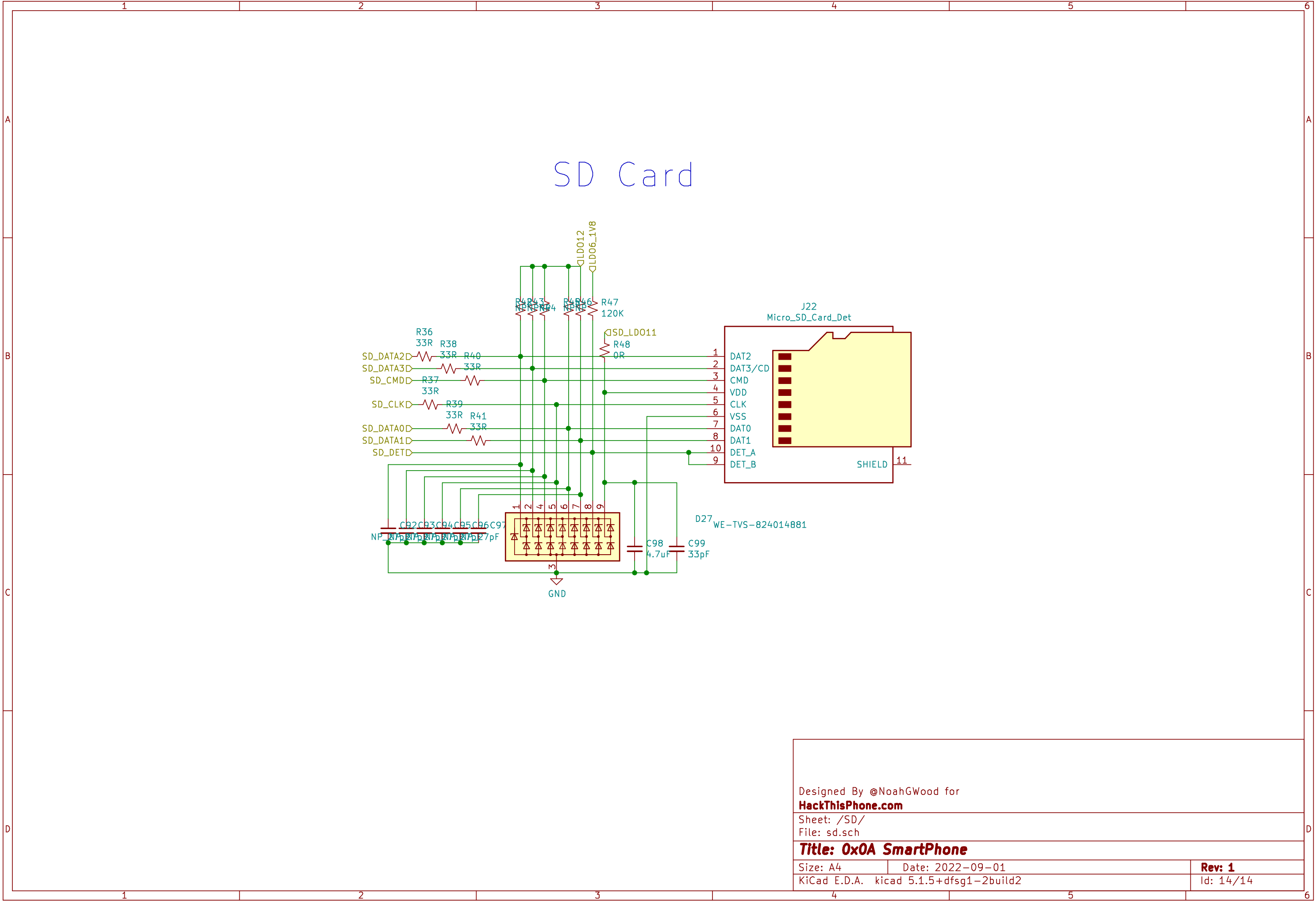


Designed By @NoahGWood for
HackThisPhone.com

Sheet: /Audio/
File: audio.sch

Title: 0x0A SmartPhone

Size: A4	Date: 2022-09-01	Rev: 1
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2		Id: 13/14



Designed By @NoahGWood for
HackThisPhone.com

Sheet: /SD/
File: sd.sch

Title: 0x0A SmartPhone

Size: A4 Date: 2022-09-01
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1
Id: 14/14