POWER

VBUS is 5V

VBUS

IN+
IN-

GND GND

POWER IN FROM POGO PINS
Solder wires to these pads from the pogo pins.

VBUS

R17 47K

VBUS

U7

VIN1
VIN2
VPCC
VOUT1
VOUT2

FULL
CHRG

/PG
STAT2
STAT1/LBO
VBAT1
VBAT2
VBATSENS

SEL
PROG2
/TE
CE
THERM

PROG1
PROG3
VSS1
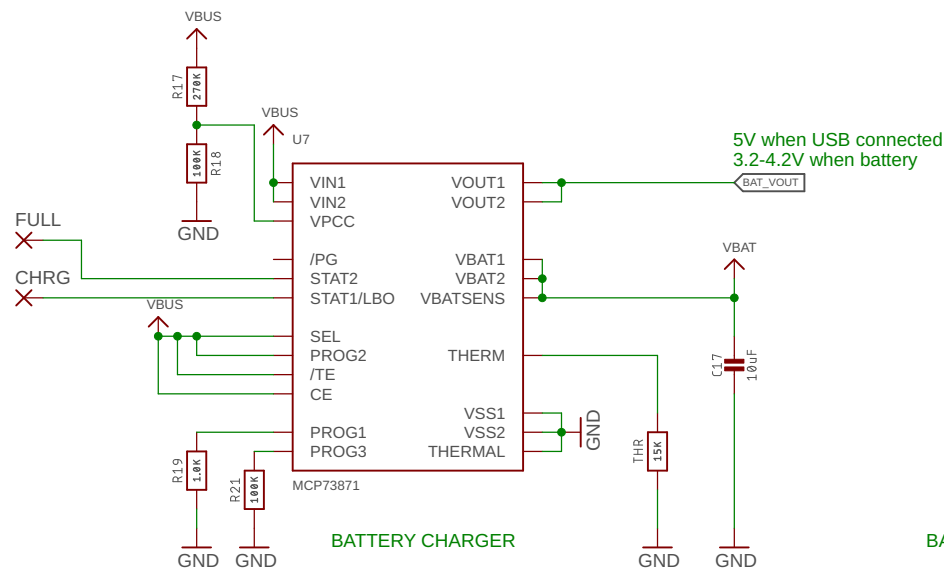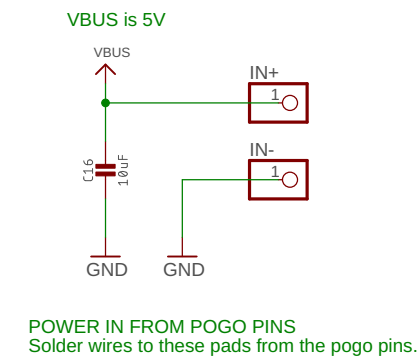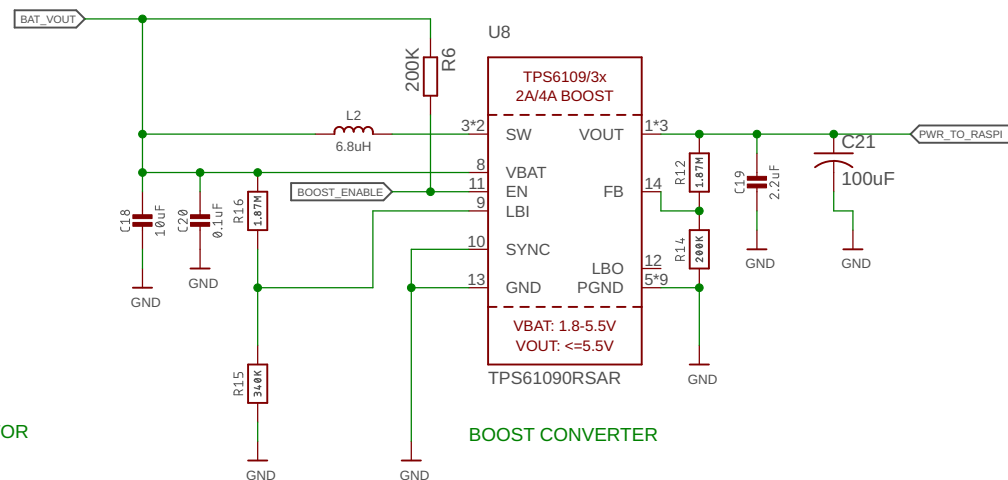VSS2
THERMAL

MCP73871

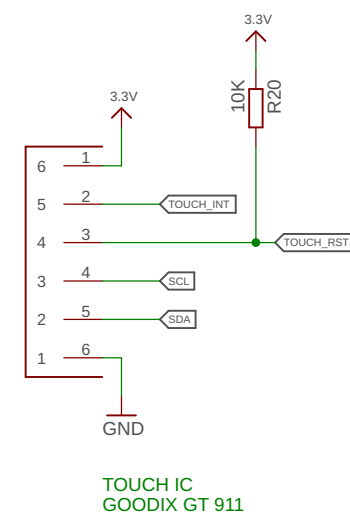GND GND

GND GND

BATTERY CHARGER

5V when USB connected
3.2-4.2V when battery

BAT_VOUT

VBAT

BATTERY CONNECTOR

VLIPO

BAT+

BAT-

GND

BOOST CONVERTER

BAT_VOUT

200K R6

U8

TPS6109/3x
2A/4A BOOST

SW VOUT
VBAT
EN FB
LBI
SYNC
GND LBO PGND

VBAT: 1.8-5.5V
VOUT: <=5.5V

TPS61090RSAR

L2 6.8uH

BOOST_ENABLE

C21 100uF

PWR_TO_RASPI

GND GND

I2C DEVICES

3.3V

IC1

VDD
RESET
GPA0
GPA1
GPA2
GPA3
GPA4
GPA5
GPA6
GPA7

INTA
INTB

SCL
SDA
GPB0
GPB1
GPB2
GPB3
GPB4
GPB5
GPB6
GPB7

A0
A1
A2
VSS

MCP23017ML

GPIO EXPANDER
I2C ADDR: 0x20

LED_CHARGING
LED_FULL

DISPLAY_RESET

CS
MOSI
CLK

PROX_INT

BTN_TOPRIGHT
BTN_TOPLEFT
BTN_SQUARE
BTN_CIRCLE
BTN_VOLUP
BTN_VOLDOWN

SCL
SDA

HAPTIC MOTOR DRIVER
I2C ADDR: 0x5A

DRV2605LDGS

VDD: 2.5-5.5V

GND
VDD
IN/TRIG

OUT-
OUT+
SCL
SDA

VREG
EN

DRV2605

U1

M-
M+

SCL
SDA

3.3V

GND

BATTERY FUEL GAUGE
I2C ADDR: 0x55

VLIPO VBAT

GND

R13 0.01

U2

SRN
SRP
VDD

BAT

VSS
PWPD
GPOUT
BIN

BQ27441-G1

C4 0.47uF

SDA
SCL

10K R4

10K R5

GND GND

PROXIMITY/GESTURE SENSOR

VCC 3.3V

GND
GND

SCL
SDA

INT

SCL
SDA

PROX_INT

TOUCH IC
GOODIX GT 911

3.3V

10K R20

TOUCH_INT

TOUCH_RST

SCL
SDA

GND

BUTTONS

VOL-
BTN_VOLDOWN
TL3315NF100Q
GND

VOL+
BTN_VOLUP
TL3315NF100Q
GND

GND

10K R22

BTN_CIRCLE

R10 100K

R11 33K

D1
S1BB-13-F

R9 100K

BOOST_ENABLE

GND

CIRCLE
TL3315NF100Q

VLIPO

R7 10K

TURN_ON

POWER ON BUTTON

TOPLEFT
BTN_TOPLEFT
TL3315NF100Q
GND

SQUARE
BTN_SQUARE
TL3315NF100Q
GND

TOPRIGHT
BTN_TOPRIGHT
TL3315NF100Q
GND

RASPBERRY PI ZERO W

J1

PWR_TO_RASPI

3.3V

5V
5V
3.3V
3.3V

SDA
SCL
TXO
RXI

SCLK
MISO
MOSI
CE0
CE1

GP5
GP6
GP12
GP13
GP16
GP19
GP20
GP21
GP26

GP4
GP17
GP18
GP22
GP23
GP24
GP25
GP27

VSYNC
HSYNC

TURN_ON

GND

GND
GND
GND
GND
GND
GND
GND
GND

ID_SD
ID_SC

LED_PWM
TOUCH_RST
TOUCH_INT

3.3V

10K R2

3.3V

10K R3

SCL
SDA

PCLK
DE

RASPBERRYPI-40-PIN-GPIO-PTH_NO_SHROUD

TOUCHSCREEN

CR1
SS14

BACKLIGHT CONTROL

L1 22uH

4103

SW

GND

R1 5.1

GND

3.3V 3.3V

0V

C15 100nF

GND

LED_PWM

LCD FPC PINOUT

GND
XR(NC)
YD(NC)
XL(NC)
YU(NC)
LEDA
LEDC
VCC
VCC2
VDDIO
VDDIO2
RESET
LEDPWM
SDO
SDI
SCL
CS
DCLK
VSYNC
HSYNC
DE
GND2
R7
R6
R5
R4
R3
R2
R1
R0
GND3
G7
G6
G5
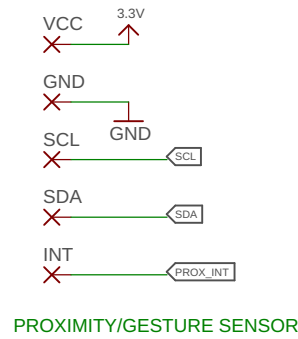G4
G2
G1
G0
GND4
B7
B6
B5
B4
B3
B2
B1
B0
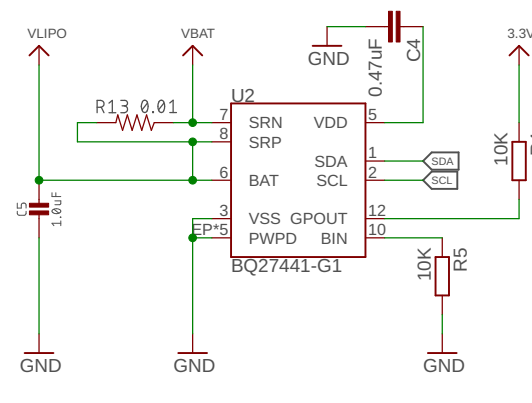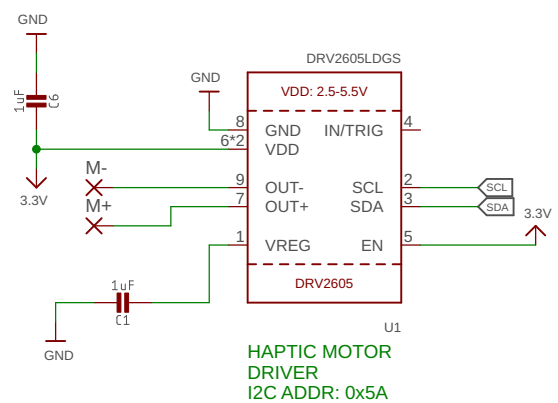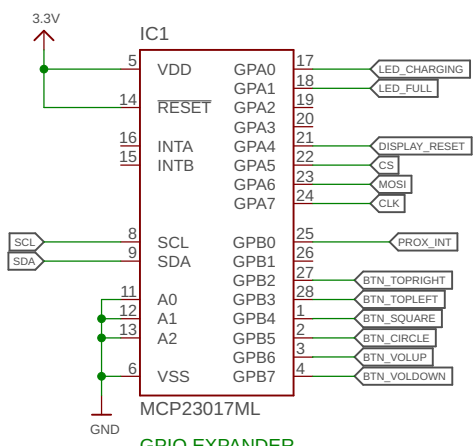GND5

DISPLAY_RESET

Not used RGB pins connect to GND
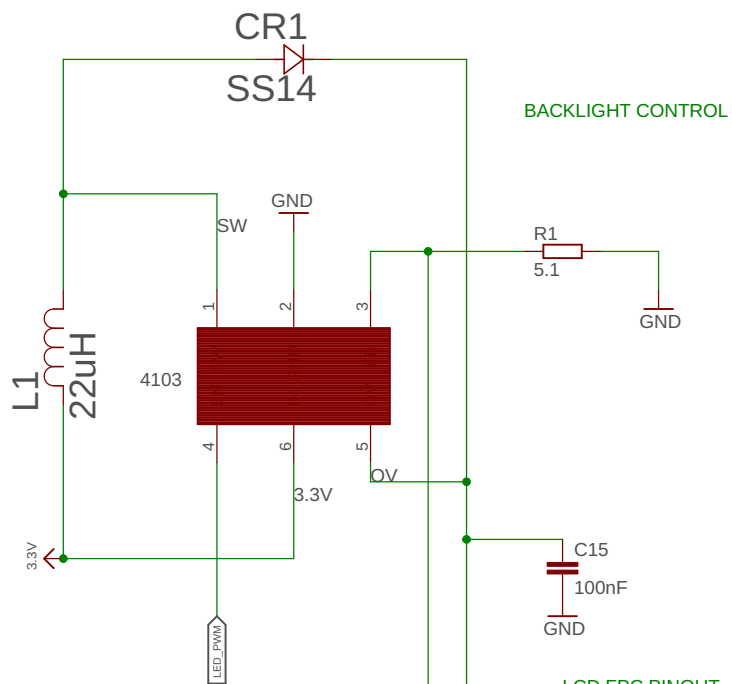
GND

TOUCH REMOTE BOARD

USING 3V LOGIC

V1.9
MCP23017 I/O expander added
BQ27441-G1 Battery meter added
DPI 666
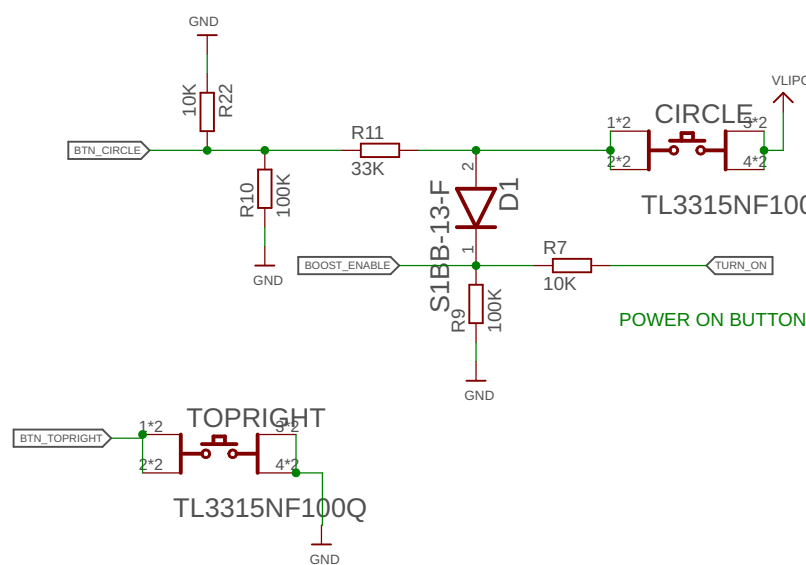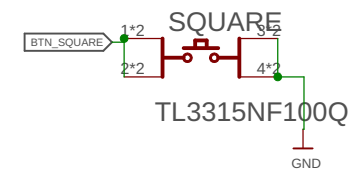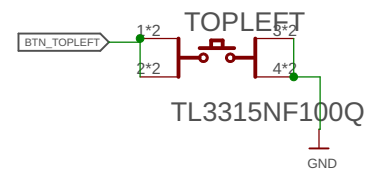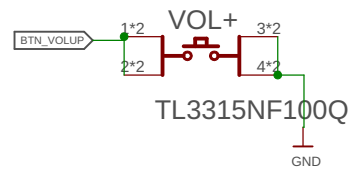DRV2605 Haptic motor controller added
6 buttons added