

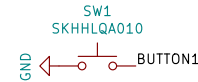
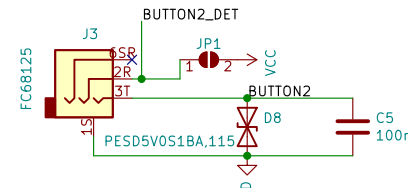
Button 1 (internal)

long button, length: 8.35mm (from pin)

SW1
SKHHLQA010

GND — [Switch] — BUTTON1

long button, length: 8.35mm (from pin)

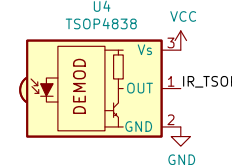
[illegible]

D8-9 & C5-6 might be DNP in construction kit

Note: if external power supply is needed (e.g. sensor connected via jack plug), bridge JP1. Via pin D3 (input_pulldown) the voltage can be detected.

Button 2 is connected to D1 (v2 & v3 board) and D15/A1 (v3 board only).

IR (infrared) RX



IR (infrared) TX

VIN

EITHER

R9 24R

R1 24R

R2 24R

R10 24R

SMD

D1

D2

D3

D4

LTE-302

LTE-302 alternatives:
QEE113
TSS2600
GL4800E0000F

Q1

Q2

IR_LED

IR_LED_1

ZVN4210

BS5138

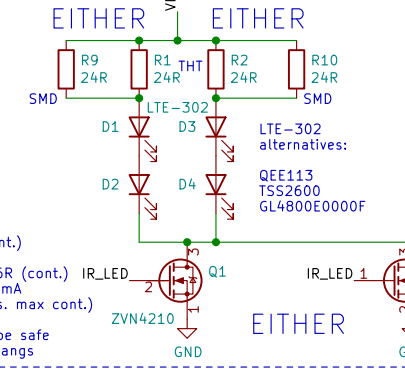
BSH108

BS5806

GND

GND

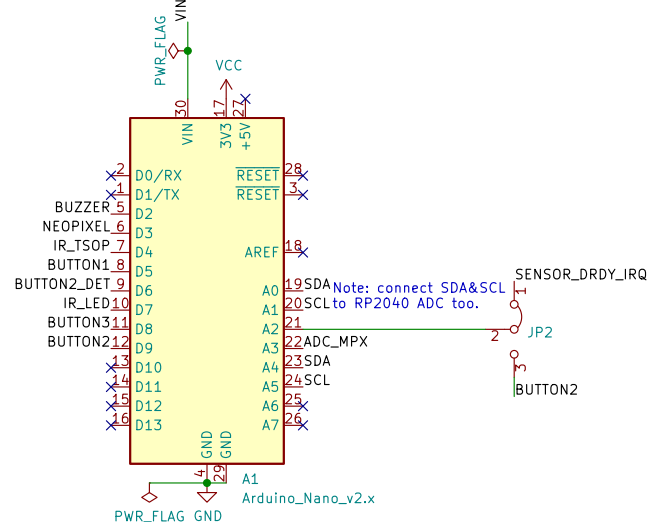
$I_f = 40\text{mA}$ (cont.)
 $V_f = -1.33\text{V}$
 $58.5\text{R} \rightarrow 56\text{R}$ (cont.)
Pulsed to 50mA
(50mA is abs. max cont.)
 $V_{fs} = -1.45\text{V}$
 39R should be safe
if firmware hangs



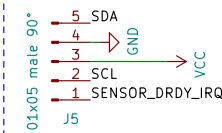
```

| If=40mA (cont.)
| Vf=-1.33V
| 58.5R -> 56R (cont.) IR
| Pulsed to 50mA
| (50mA is abs. max cont.)
| Vf=-1.45V
| 39R should be safe
| if firmware hangs
|

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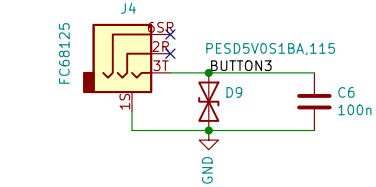


Sensors

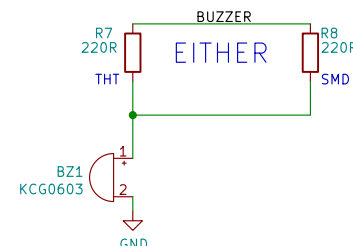


Button 3 (external)

Jacks (same as on FABI)
Cliff FC68125
RS Pro 805-1655
Lumberg 1503 19
Aliexpress: "PJ321C" hard to find, here is a link:
www.aliexpress.com/item/32665420060.html
Note: might not fit that well!



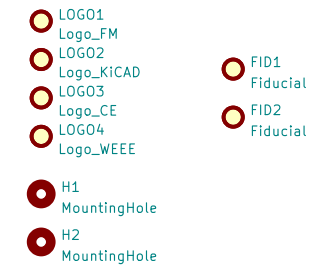
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Mechanical

- LOG01
Logo_FM
- LOG02
Logo_KiCAD
- LOG03
Logo_CE
- LOG04
Logo_WEEE
- H1
MountingHole
- H2
MountingHole

- FID1
Fiducial
- FID2
Fiducial



Pressure sensor

Alternative: DNP MPVX sensor and use the pin header for an external sensor (e.g. hall sensor for FLipPad)

U1

VCC MPVX7007GP

GND Vcc

GND

Vout

ADC_MPX+

GND

EITHER

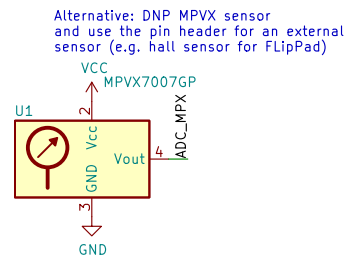
place the sensor board with the pressure sensor here

Conn_01x04_Male

J7

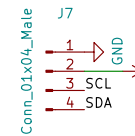
1 2 3 4

VCC GND SCL SDA



EITHER

place the sensor board with the pressure sensor here



Note: place only if necessary (e.g. NP ring in case)

VIN — J6-1
NEOPIXEL — J6-2
GND — J6-3

VIN — J7-1
NEOPIXEL — J7-2
GND — J7-3

VIN — J8-1
NEOPIXEL — J8-2
GND — J8-3



Note: place only if necessary
(e.g. NP ring in case)

Orders in addition to BOM

- FLipMouse
 - * Silicon tube, 2x4mm, ~5cm length
 - * LuerLock with M5 screw
 - * Sensor board PCB (see second KiCAD project & BOM)
 - * screws according to case (4x M2x12; 2x M2x20)
 - * Mouthpiece

- * FLIPMouse
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FLiPpad
* Glide adapter PCB (see addons folder for KiCAD project & BOM)

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- * Neopixel Strip (two LEDs needed)
- * 3D printed case (depending on type)
- * HotShoe Adapter
- * USB cable with magnetic plug
- * Packaging

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These parts should be placed in the .xls BOM file.

Notes on Button2:

- * D6/GPIO18 can be used to detect if there are 3V3 on button 2
- * If JP1 is closed, a 3pin Jackplug can be connected, which carries 3V3, GND and a GPIO pin
- * If JP2 is switched, button 2 pin is connected to A2 as well (external analog sensors)

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Notes on pressure sensor:

- * Instead of MPX pressure sensor, a breakout for Honeywell MPR series (I2C) can be connected to J7
- * If the firmware does not detect a MPRLS sensor on I2C, analog values are read

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