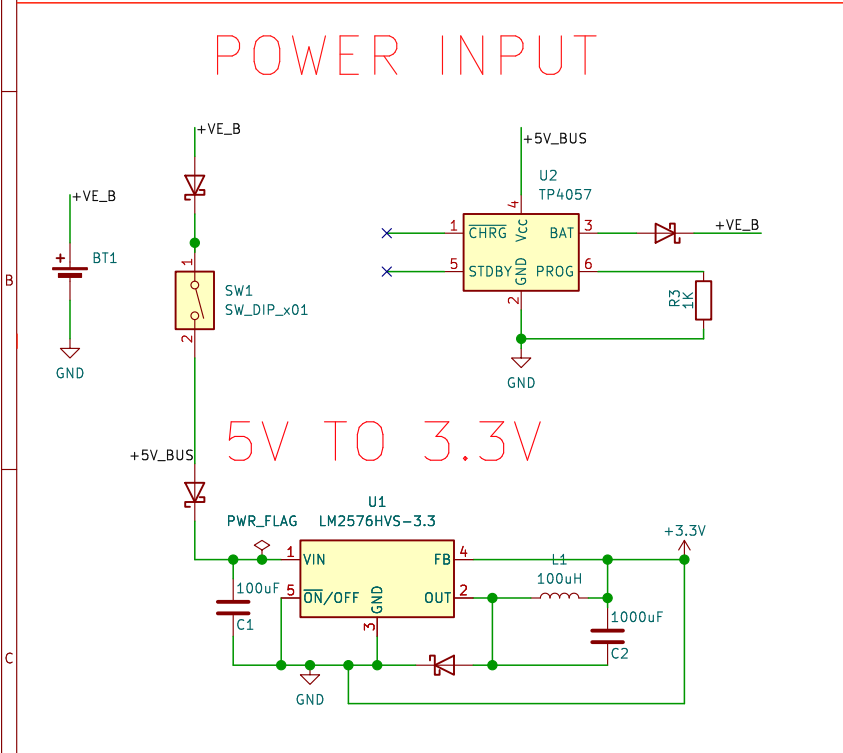


TEST POINTS

The diagram illustrates the connection of four test points (TP1, TP2, TP3, TP4) to the power supply rails. TP1 and TP2 are connected to +3.3V, while TP3 and TP4 are connected to GND. The connections are shown as vertical lines with arrows pointing to the respective power rails.

TestPoint	Connection
TestPoint TP1	+3.3V
TestPoint TP2	+3.3V
TestPoint TP3	GND
TestPoint TP4	GND



IOT - KIT

ESP32 - WROOM - 32

U4
ESP32-WROOM-32

SW3
SW_DIP_x10

TEST PINS

Digital I/O Digital I/O Digital I/O Digital I/O Digital I/O

I013 I014 I015 I016 I017

TP10 TP11 TP12 TP14 TP16

Digital / ADC Digital / ADC INPUT ONLY PWM OUT

I026 I027 I025 I012

TP9 TP13 TP15 TP17

Diagram showing the pin configuration for the ADXL345 on the ADXL345 Breakout Board. The pins are arranged in two rows. The top row shows pins TP10, TP11, TP12, TP14, and TP16, all labeled 'Digital I/O'. The bottom row shows pins TP9, TP13, TP15, and TP17. TP9 and TP13 are labeled 'Digital / ADC', TP15 is labeled 'INPUT ONLY', and TP17 is labeled 'PWM OUTPUT'. Each pin is represented by a green vertical line with a red circle at the bottom.

The diagram illustrates the hardware connections for the Display Module. It features an L2 SPI TFT Display and three push buttons (UP, DOWN, ENTER) connected to the microcontroller's I/O pins.

L2 SPI TFT Display Connections:

- IO19:** Connected to SDO (Data Out).
- IO18:** Connected to LED (Data Out).
- IO23:** Connected to SCL (Clock).
- IO2:** Connected to SDA/SDI (Data In).
- DC:** Connected to RST (Reset).
- VDD33:** Connected to VDD33.
- GND:** Connected to GND.
- IO5:** Connected to CS (Chip Select).
- IO4:** Connected to RST (Reset).

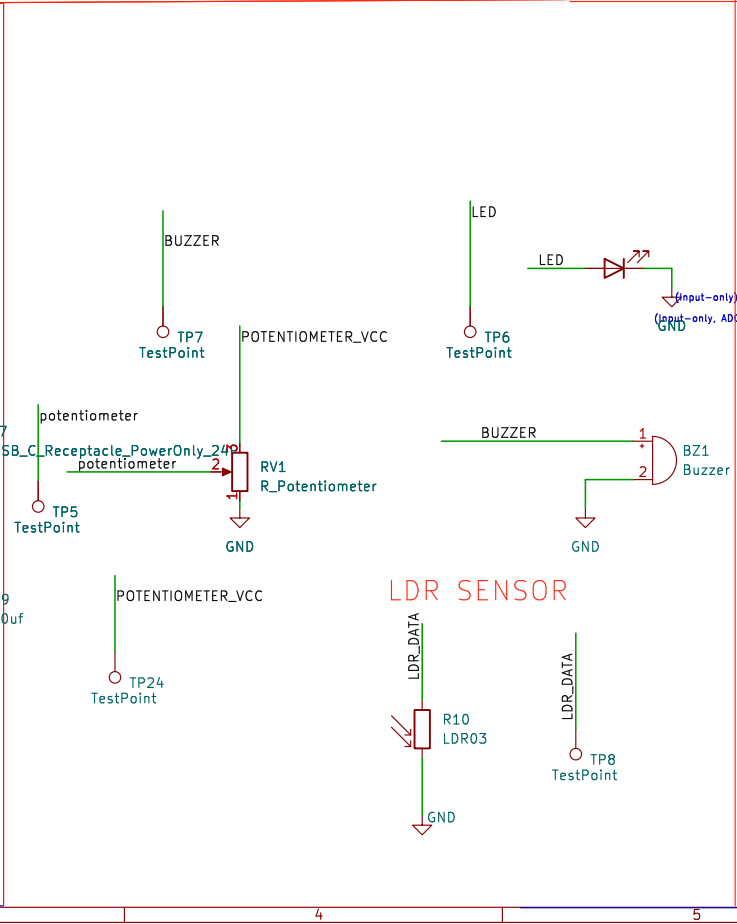
Push Buttons Connections:

- UP BUTTON (SW6):** Connected to IO32. The button is labeled CK_KMS2xxG.
- DOWN BUTTON (SW7):** Connected to IO33. The button is labeled CK_KMS2xxG.
- ENTER (SW8):** Connected to IO25. The button is labeled CK_KMS2xxG.

Power and Ground Connections:

- +3.3V:** Connected to the VDD33 pin of the display and the common ground of the buttons.
- GND:** Connected to the ground pins of the display and the common ground of the buttons.

The schematic diagram illustrates a relay control circuit. On the left, a level shifter circuit is shown, consisting of a 1.3V input signal connected to a 1k resistor (R5), which is then connected to the base of an NPN transistor (Q3, S8050). The emitter of the transistor is connected to ground (GND) through a 1k resistor (R6). The collector of the transistor is connected to a +5V supply. The relay (K2, RAYEX L90A5) is represented by a yellow box. Its coil terminals (A1, A2) are connected to the +5V supply and the collector of the transistor. The common terminal (C1, C2) is connected to a test point (TP19, RELAY_COM). The switch terminals (13, 14) are connected to a screw terminal (J6, Screw_Terminal_01x02).

[illegible]

MALE CONNECTORS

J2 Conn_02x10_Odd_Even SW2 SW_DIP_x10

IO21 1 20 2 1 1 20 IO2

IO22 2 19 4 3 2 19 IO4

IO23 3 18 6 5 3 18 IO5

IO25 4 17 8 7 4 17 IO13

IO26 5 16 10 9 5 16 IO14

IO27 6 15 12 11 6 15 IO15

IO32 7 14 14 13 7 14 IO16

IO33 8 13 16 15 8 13 IO17

IO34 9 12 18 17 9 12 IO18

IO35 10 11 20 19 10 11 IO19

+3.3V +3.3V GND GND

TP20 TP21 TP25 TP26