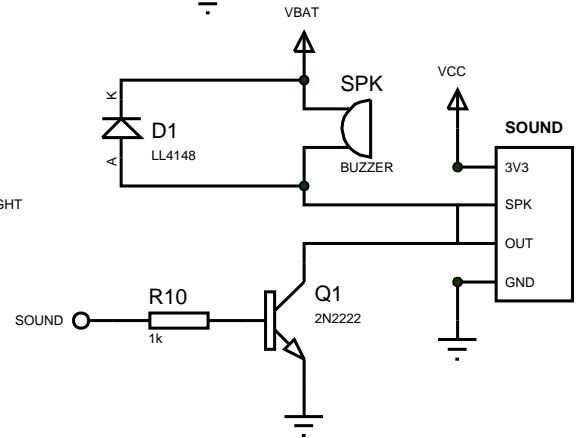
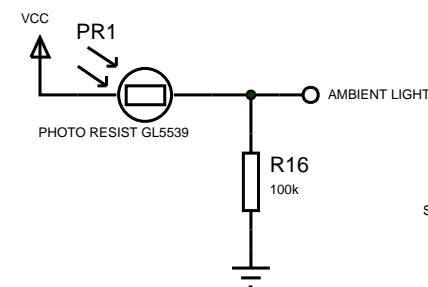
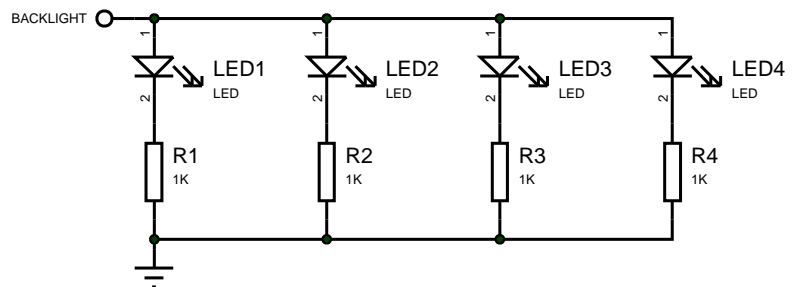
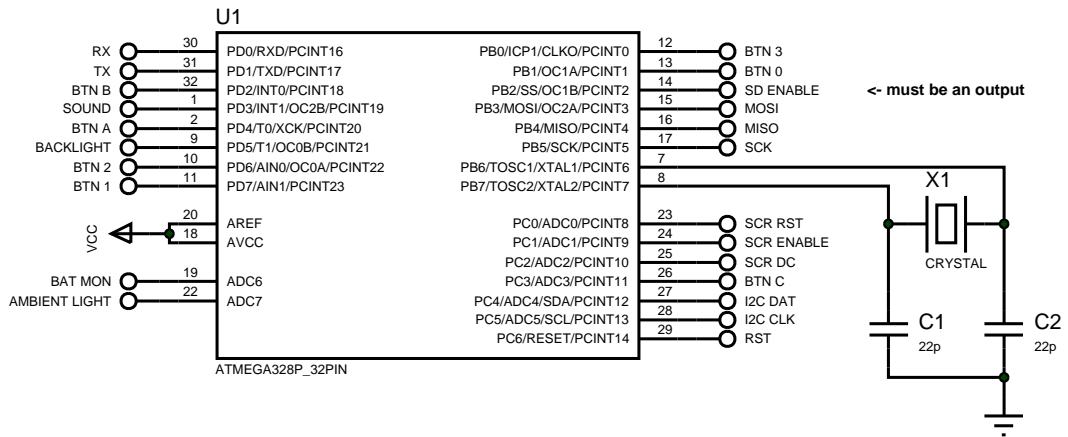
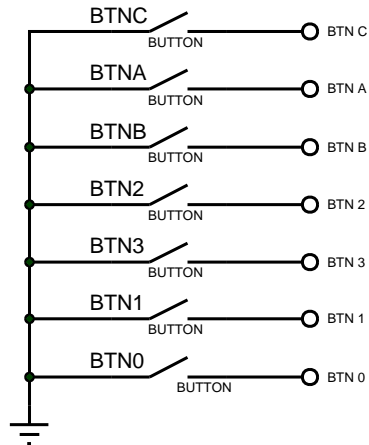
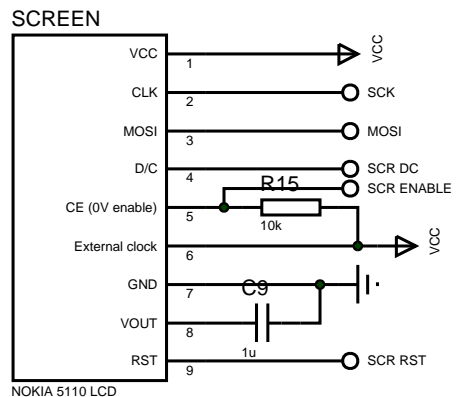
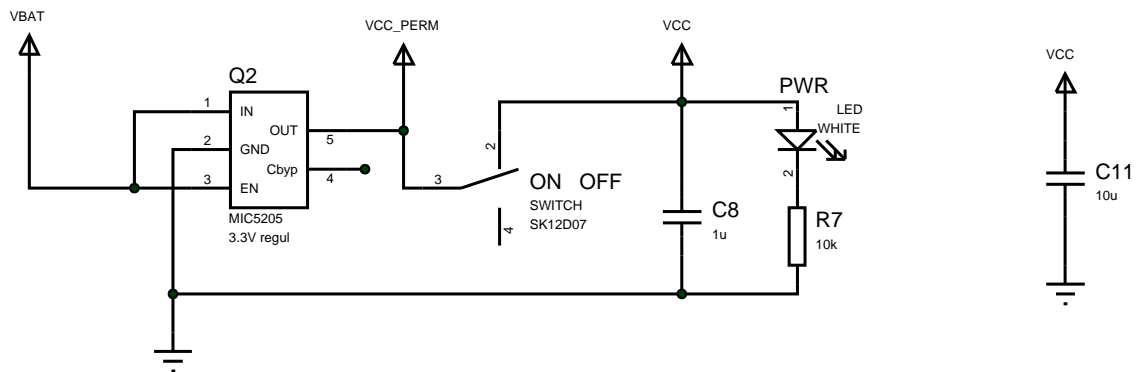
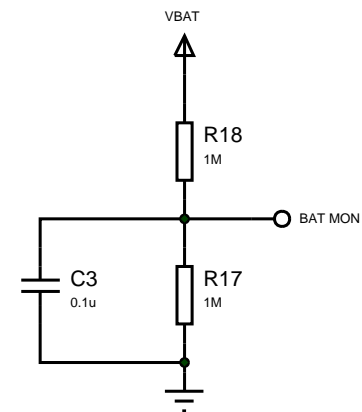
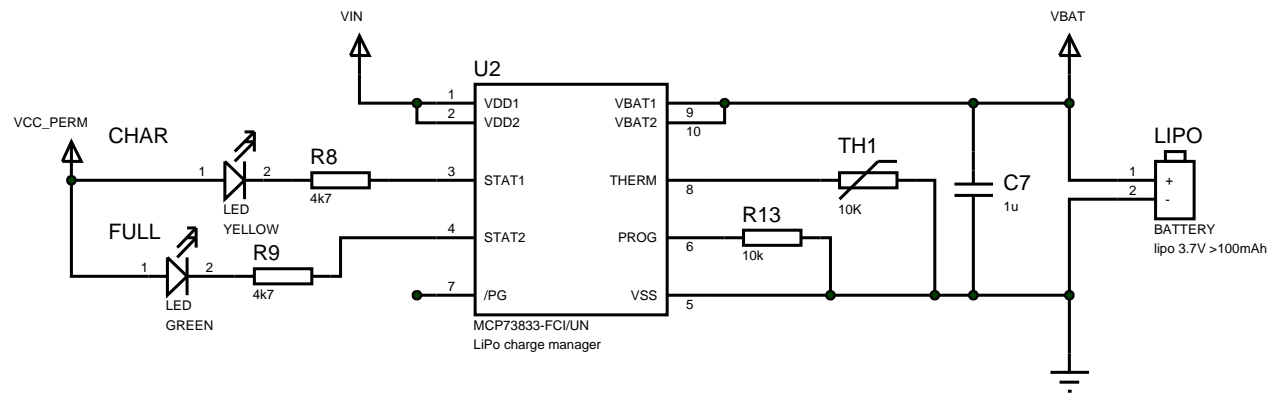


# CORE & SCREEN



# POWER



The diagram illustrates the internal wiring of the FT232RL module, showing the connections between the USB interface, the FT232RL chip, and various external components like I2C ports, an SD card, and an ICSP header.

**USB Interface:** A USB connector (USB) is connected to the USBDM, USBDP, and VCC pins of the FT232RL chip (U3). The VCC pin is connected to a 3.3V supply (3V3OUT) and a 10k resistor (R14) to the RST pin. The USBDM and USBDP pins are connected to the TXD and RXD pins of the chip. The VCC pin is also connected to a 10k resistor (R14) to the RST pin.

**I2C Ports:** Two I2C ports (J1 and J2) are connected to the SDA and SCL pins of the FT232RL chip. The SDA pin is connected to the I2C DAT pin of J1 and J2. The SCL pin is connected to the I2C CLK pin of J1 and J2. The I2C ports are also connected to a 3.3V supply (3V3) and a 10k resistor (R14) to the RST pin.

**SD Card:** An SD card (SD) is connected to the MICRO SD pins of the FT232RL chip. The SD card's VCC pin is connected to the VCC pin of the chip. The SD card's GND pin is connected to the GND pin of the chip. The SD card's CS pin is connected to the CS pin of the chip. The SD card's DI pin is connected to the DI pin of the chip. The SD card's DO pin is connected to the DO pin of the chip. The SD card's SCK pin is connected to the SCK pin of the chip. The SD card's MISO pin is connected to the MISO pin of the chip. The SD card's MOSI pin is connected to the MOSI pin of the chip. The SD card's RST pin is connected to the RST pin of the chip. The SD card's GND pin is connected to the GND pin of the chip.

**ICSP Header:** An ICSP header (ICSP) is connected to the ICSP pins of the FT232RL chip. The ICSP header's MISO pin is connected to the MISO pin of the chip. The ICSP header's VCC pin is connected to the VCC pin of the chip. The ICSP header's SCK pin is connected to the SCK pin of the chip. The ICSP header's MOSI pin is connected to the MOSI pin of the chip. The ICSP header's RST pin is connected to the RST pin of the chip. The ICSP header's GND pin is connected to the GND pin of the chip.

**FT232RL Chip (U3):** The FT232RL chip (U3) is the central component of the module. It has 28 pins. The pins are labeled as follows: 1: TXD, 2: RXD, 3: CTS, 4: RTS, 5: DTR, 6: DSR, 7: DCD, 8: RI, 9: TXLED, 10: RXLED, 11: PWREN, 12: TXDEN, 13: SLEEP, 14: TXDEN, 15: SLEEP, 16: USBDM, 17: USBDP, 18: VCC, 19: 3V3OUT, 20: VCCIO, 21: OSC1, 22: OSC2, 23: RESET, 24: TEST, 25: AGND, 26: GND7, 27: GND18, 28: GND21.

**Other Components:** The circuit includes several capacitors (C4, C5, C6, C10) and resistors (R5, R6, R14). The capacitors are used for decoupling and timing. The resistors are used for pull-up and current limiting.