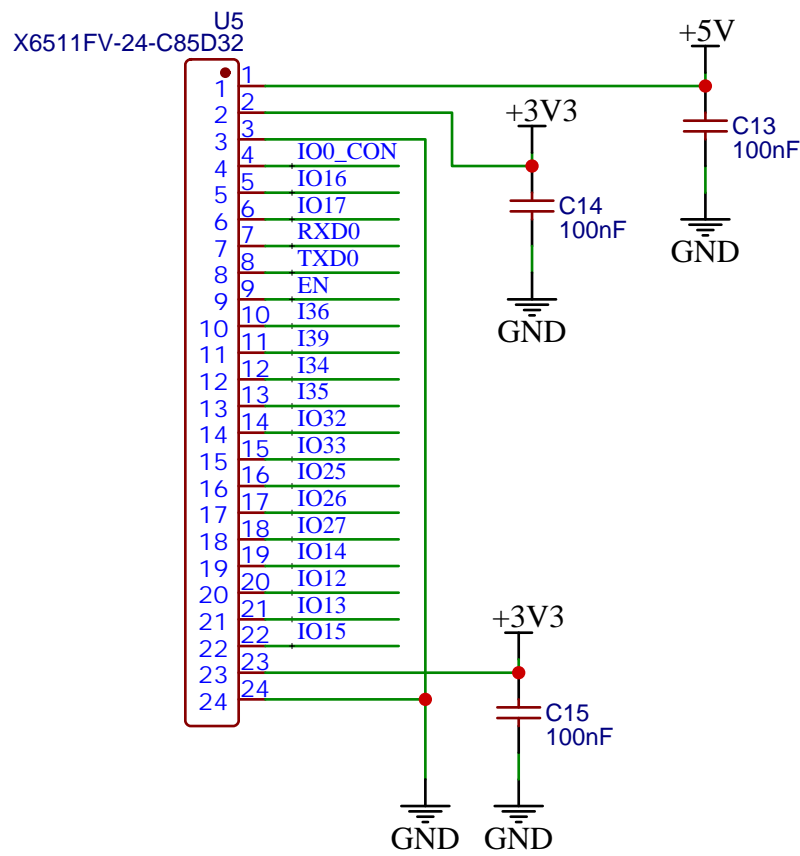
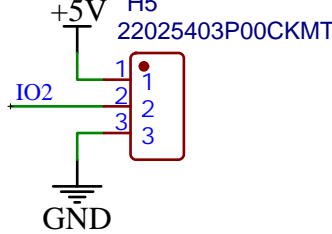


# GHE Data Logger V1

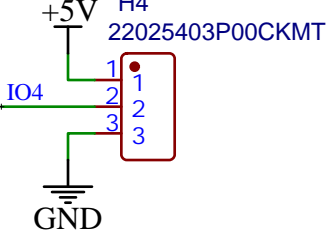
Pin Breakout



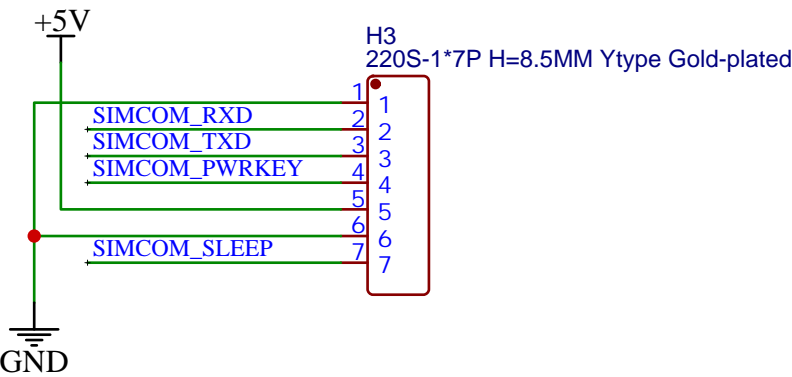
Analog Sensor 2



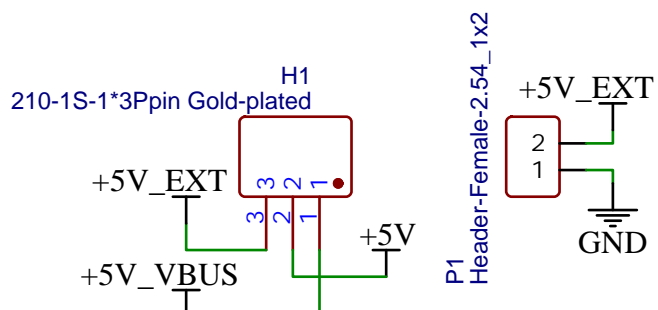
Analog Sensor 1



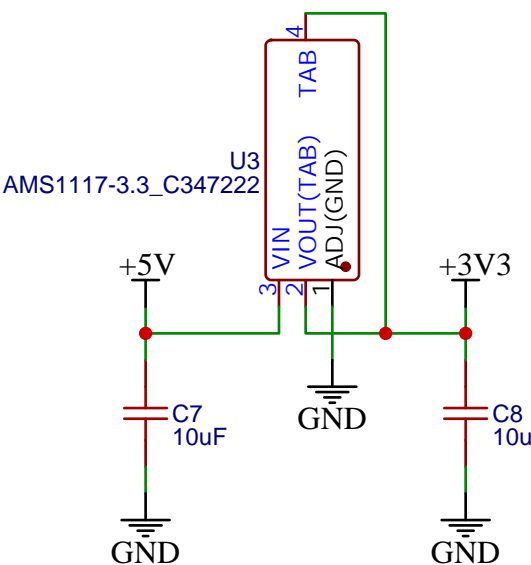
BK-A7670E Connector



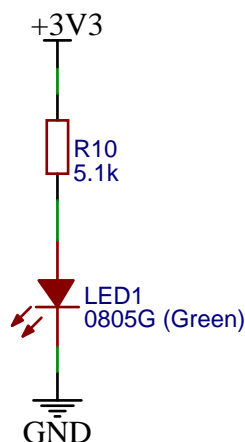
Power Switch, +5V\_EXT



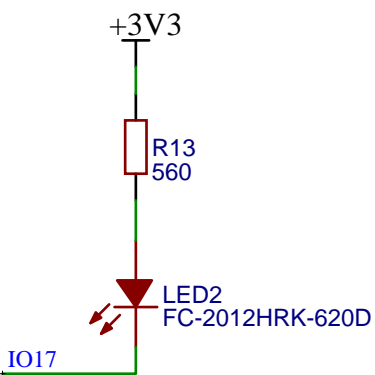
5V to 3V3



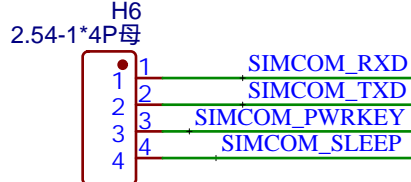
Power LED



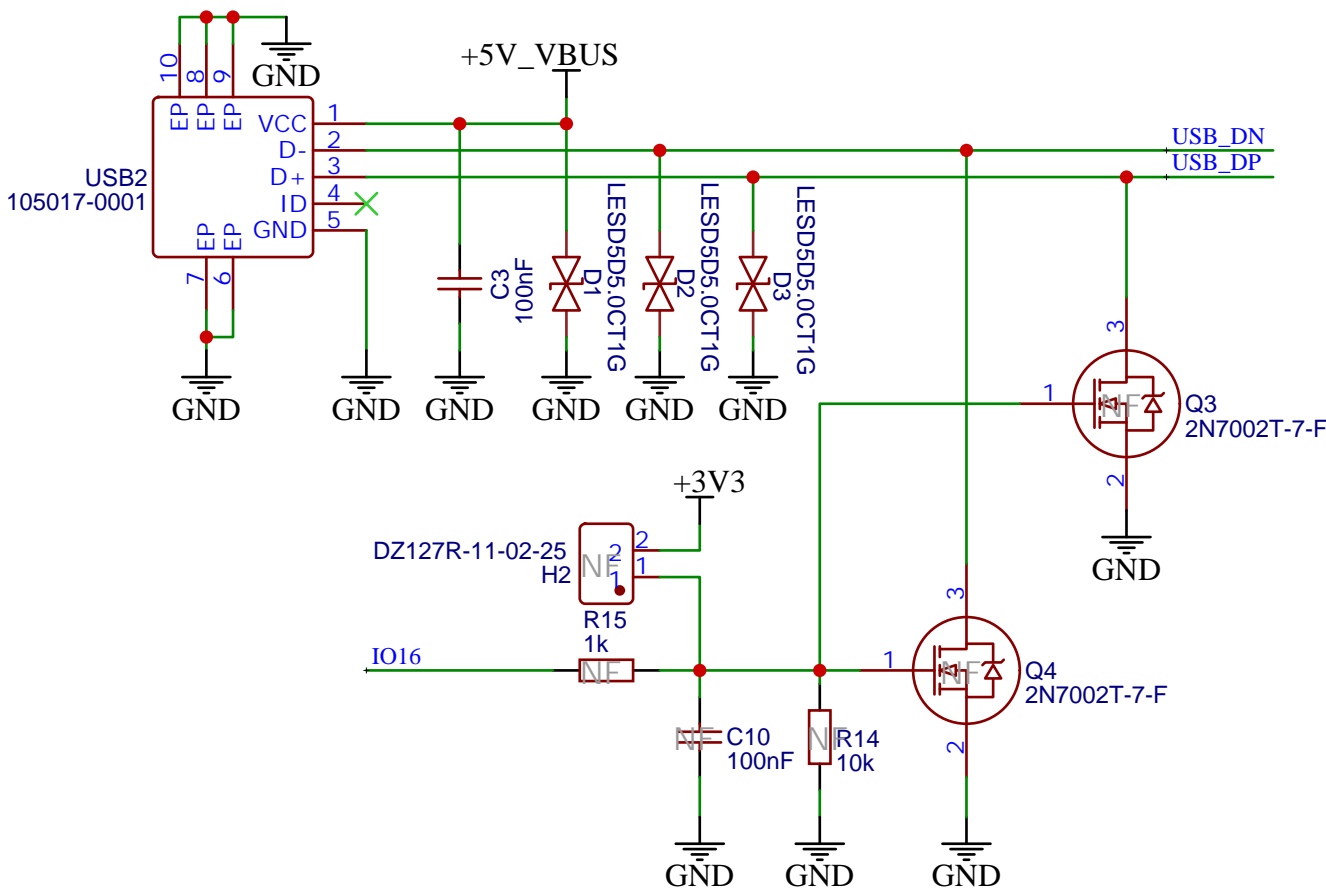
User LED



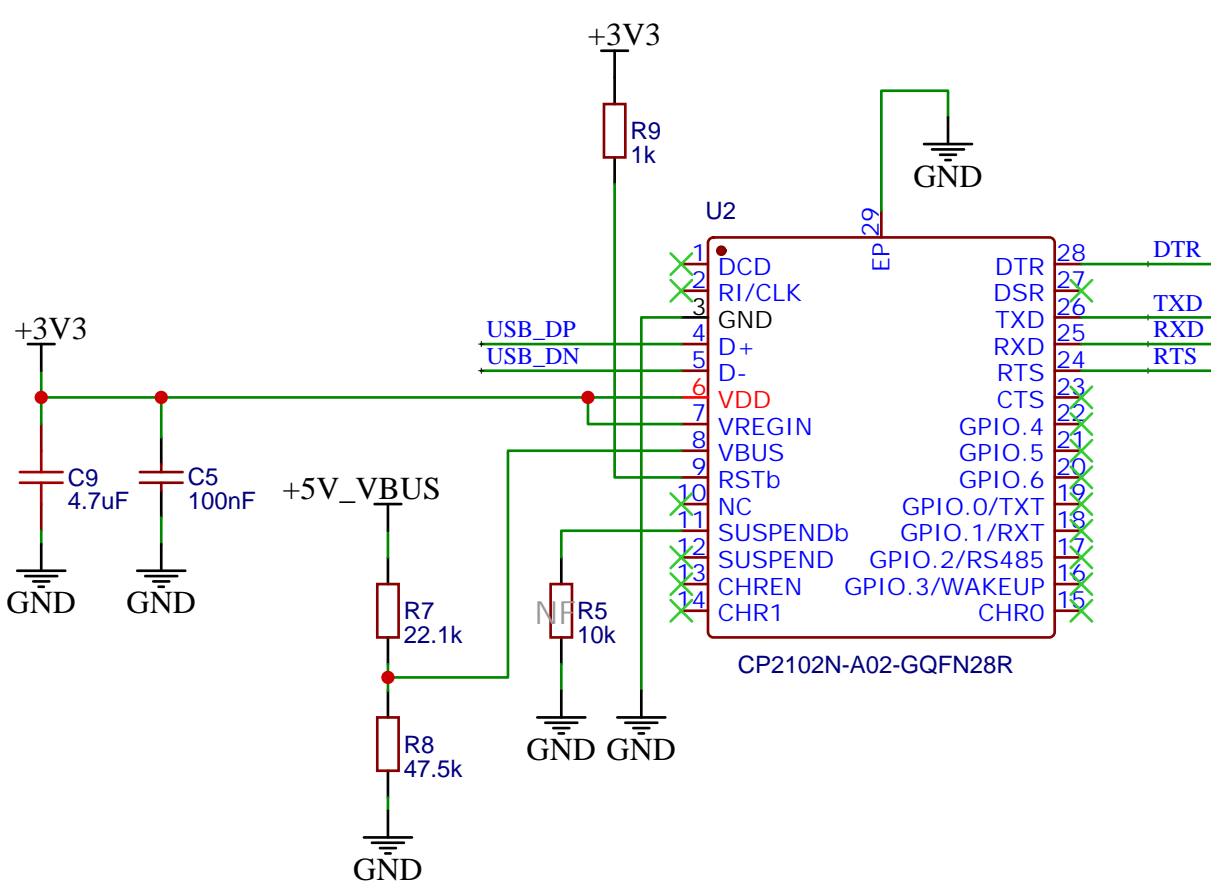
BK-A7670E Pin Breakout



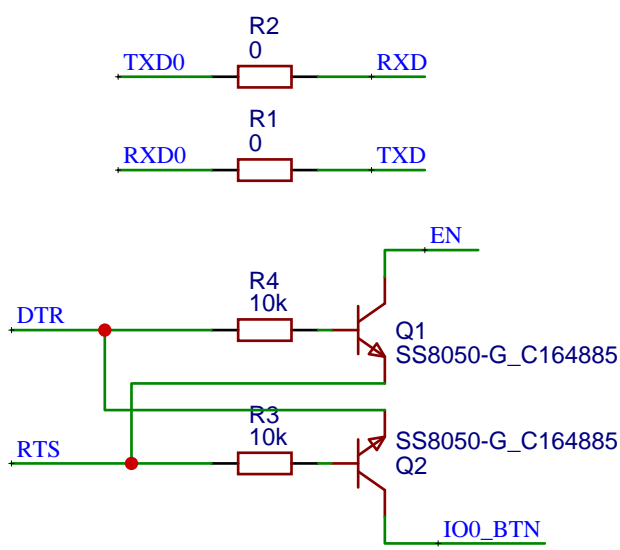
USB Connector



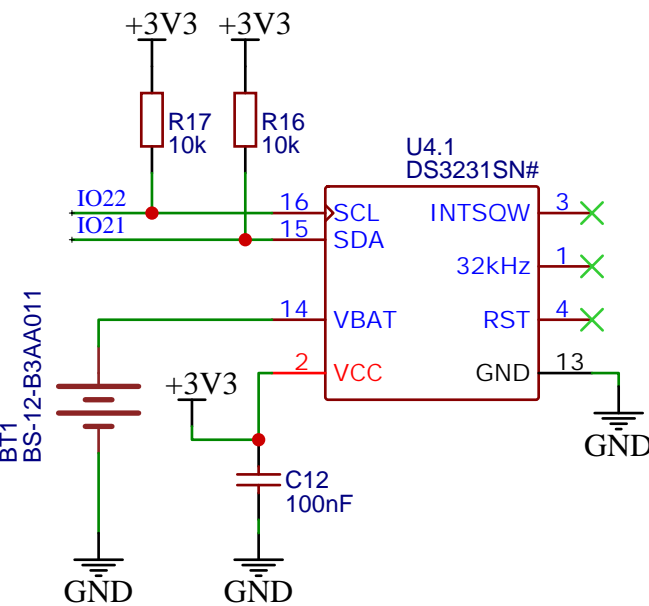
USB to UART (Serial)



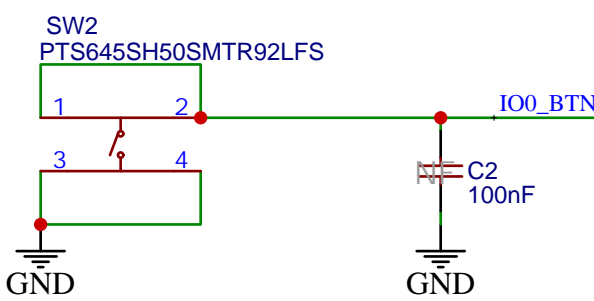
UART Signal Handling



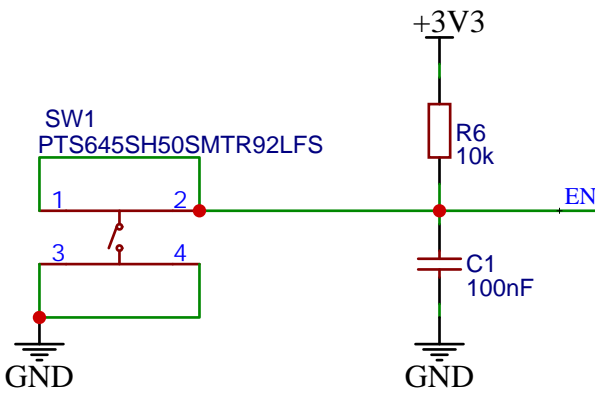
RTC DS3231



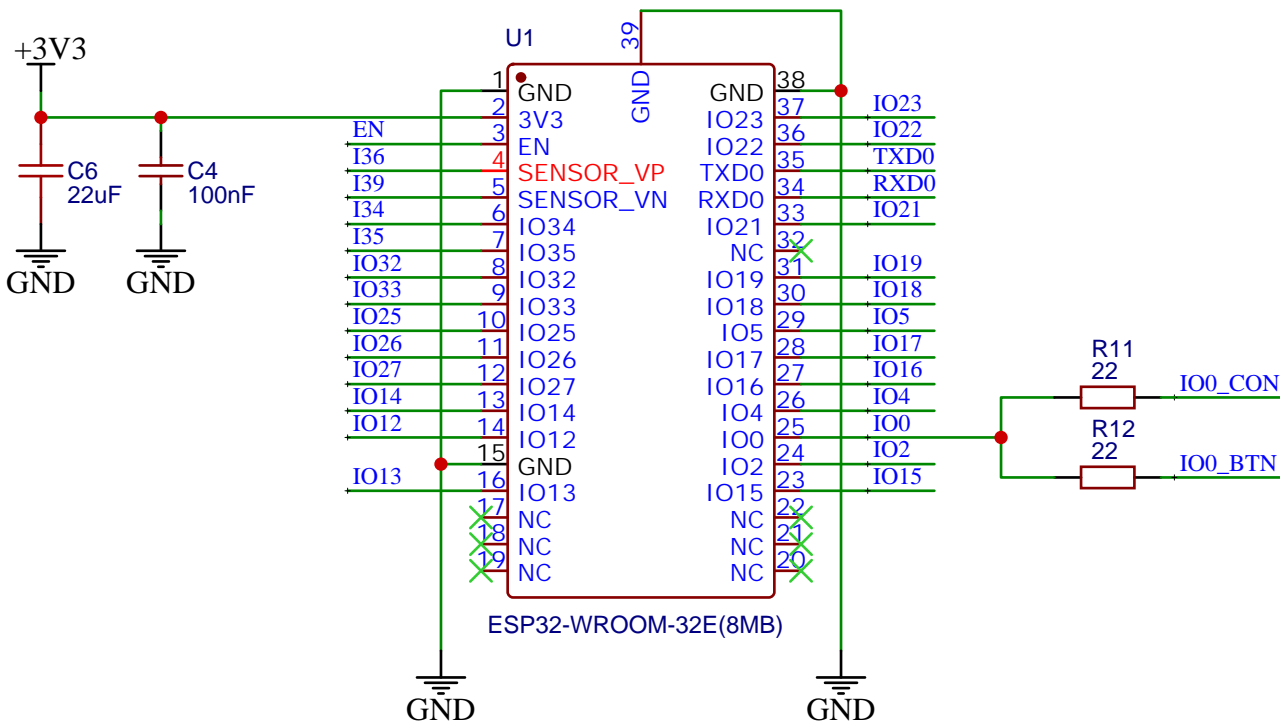
Boot / User Button



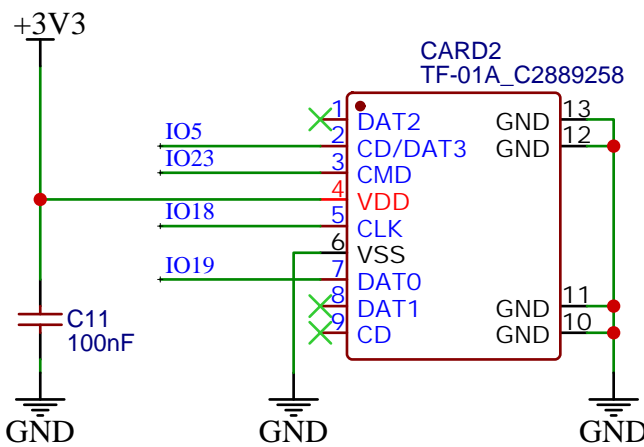
Reset Button



ESP32 Module



Micro-SD Connector



SD Pull-up Requirements Doc for ESP32: [https://docs.espressif.com/projects/esp-idf/en/latest/esp32/api-reference/peripherals/sd\\_pullup\\_requirements.html#sd-pull-up-no-pull-ups](https://docs.espressif.com/projects/esp-idf/en/latest/esp32/api-reference/peripherals/sd_pullup_requirements.html#sd-pull-up-no-pull-ups)  
Great video on SD card interfacing by Steve Rayner: <https://www.youtube.com/watch?v=g40UdjZ-Sk>  
Adafruit Micro SD Breakout Schematics: <https://learn.adafruit.com/adafruit-micro-sd-breakout-board-card-tutorial/download>  
Adafruit RTC DS3231 Breakout Schematics: <https://learn.adafruit.com/adafruit-ds3231-precision-rtc-breakout/download>  
ESP32 part made with the help of this tutorial by Robert Feranec: [https://www.youtube.com/watch?v=S\\_p0VV-JfU](https://www.youtube.com/watch?v=S_p0VV-JfU)  
ESP32-WROVER\_1E Datasheet: [https://www.espressif.com/sites/default/files/documentation/esp32-wrover-e\\_esp32-wrover-1e\\_datasheet\\_en.pdf](https://www.espressif.com/sites/default/files/documentation/esp32-wrover-e_esp32-wrover-1e_datasheet_en.pdf)  
ESP32 DevKitC V4 Schematics: [https://dl.espressif.com/dl/schematics/esp32\\_devkitc\\_v4-sch.pdf](https://dl.espressif.com/dl/schematics/esp32_devkitc_v4-sch.pdf)  
ESP32 DevKitM-1 V1 Schematics: [https://dl.espressif.com/dl/schematics/ESP32-2-DevKitM-1\\_V1\\_Schematics.pdf](https://dl.espressif.com/dl/schematics/ESP32-2-DevKitM-1_V1_Schematics.pdf)