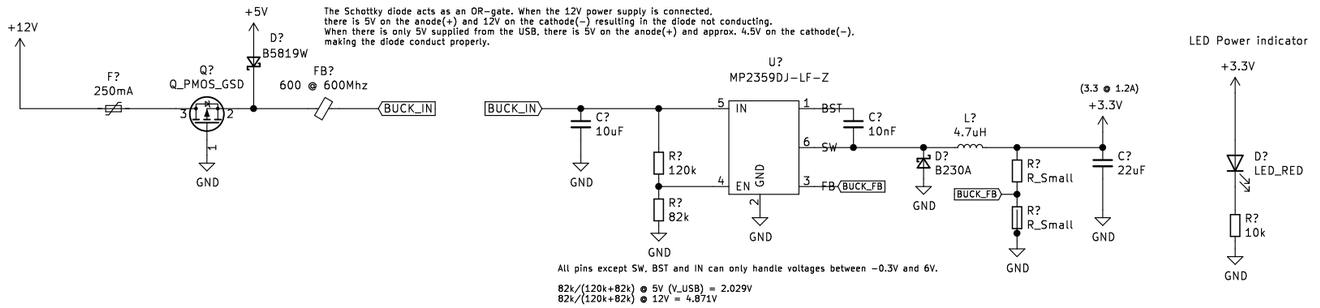
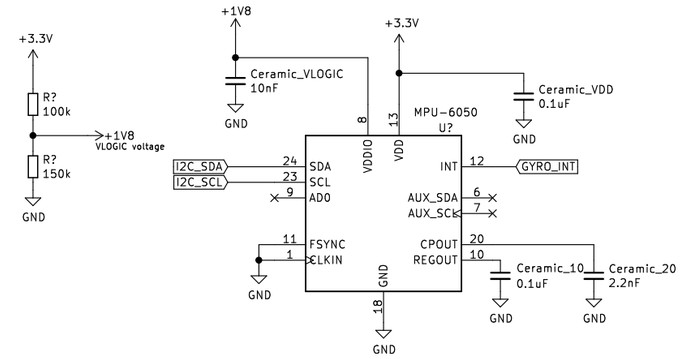
Power Supply & Filtering



Gyroscope MPU6050



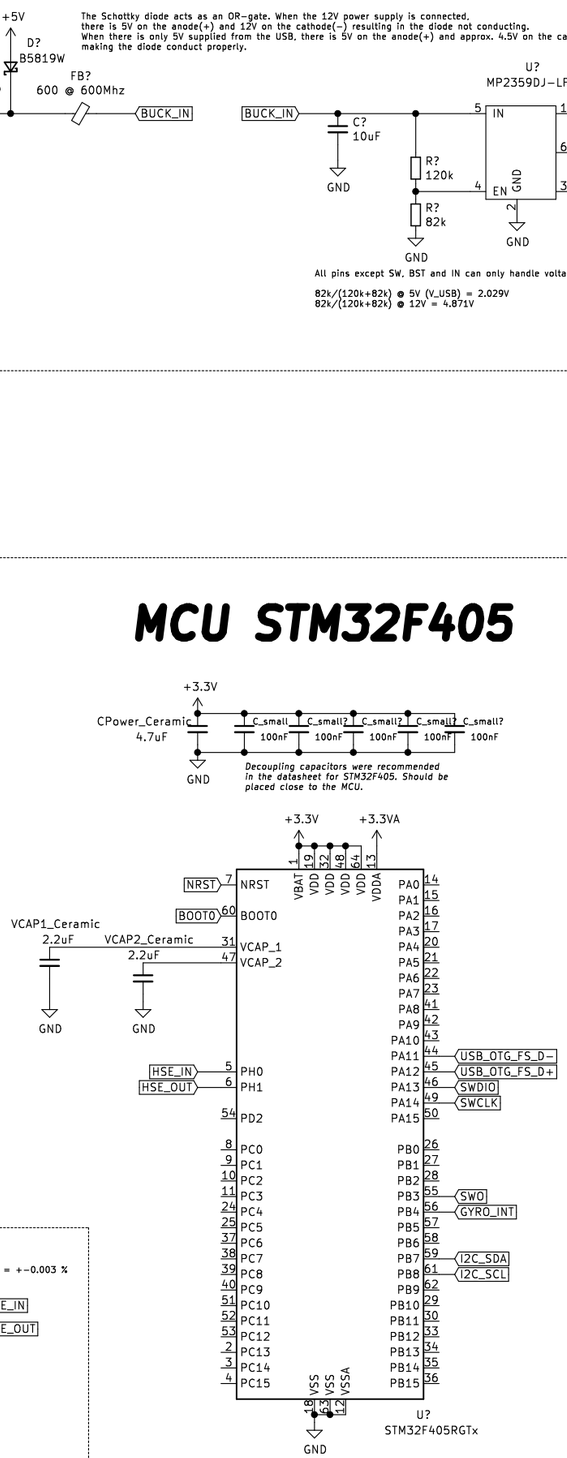
ADO (Address select pin) which is a I2C slave address select pin.
Won't need since we won't connect two of the same gyros to the same I2C.

INT (interrupt) pin which is an interrupt digital output pin and used to
give indication to the MCU that data is available to read from the MPU6050.

FSYNC is used to sync the MP6050 with a videocamera etc.
If unused, connect to ground according to datasheet.

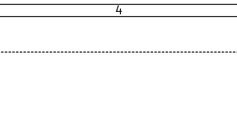
CLKIN is optional external reference clock input. If unused, connect to ground according to datasheet.

MCU STM32F405



Analog power supply filtering

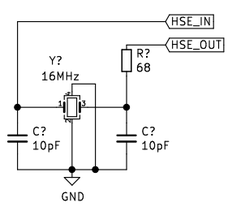
The inductor together with the capacitors in parallel form a low pass filter with Fc = 730.484 kHz



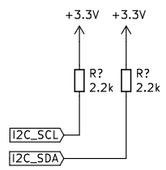
Boot mode

Crystal Oscillator

Load resistor needs to have a tolerance of 30ppm = +-0.003 %

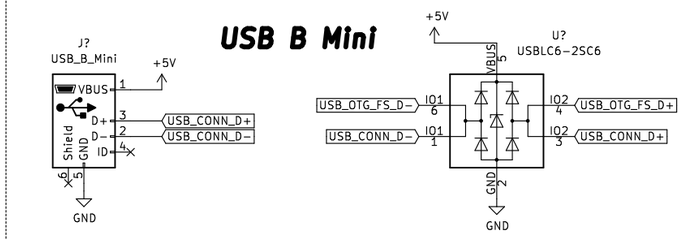


I2C Pull-up resistors

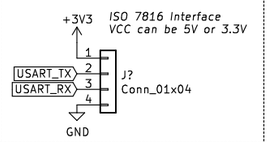


Pull-up resistors are needed for I2C to
ensure the logical state.
Should be in range 2k to 10k

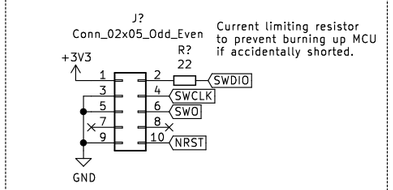
USB B Mini



USART



Serial Wire Debug



Sheet: /		
File: STM32F405RG + Gyro + I2C.sch		
Title: STM32F405RG-GYRO-I2C-UART-USB		
Size: A3	Date:	**Rev:**
KiCad E.D.A. kicad (5.1.10)-1		Id: 1/1