

I 2c bus type Three axis PTZ circuit program manual

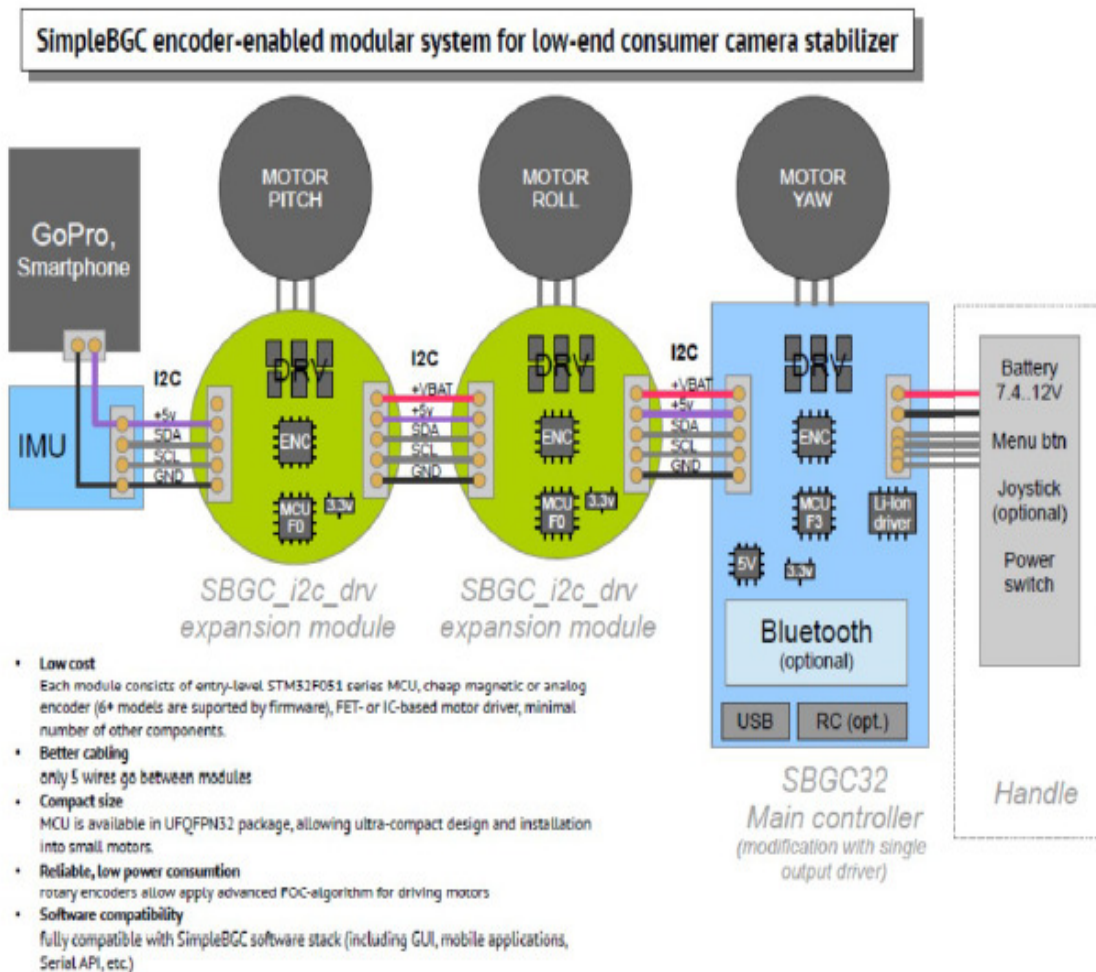
<http://www.offthegridwater.ca>

Basic introduction:

ii2c encoder connection & BGC connection between the three motors 3 axes and the connection with the IMU uses ii2c bus connection, mother board and BGC driver board module, IMU model.

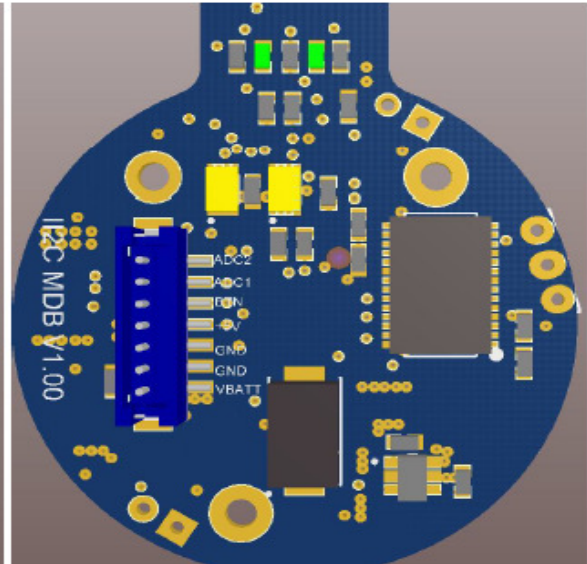
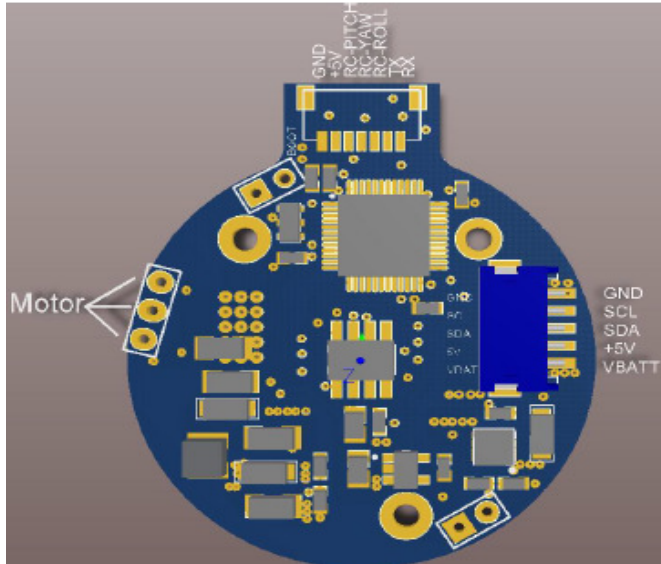
Connection Block uses JST standard standard 5 pin connector connections, easy to connect slip ring, wiring simple, easy assembly and maintain. The center of each board has a 12-bit AS5600 encoder, the motor is ready for encoder firmware. Board voltage 2s-4s lithium battery.

The schematic is as follows:

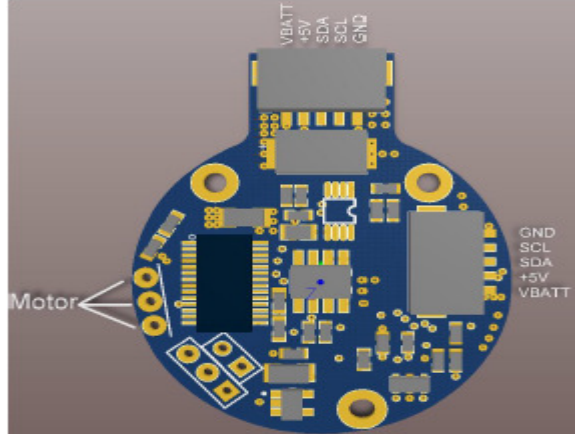


The schematic is as follows:

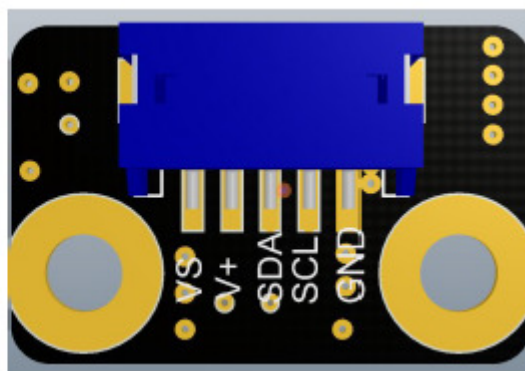
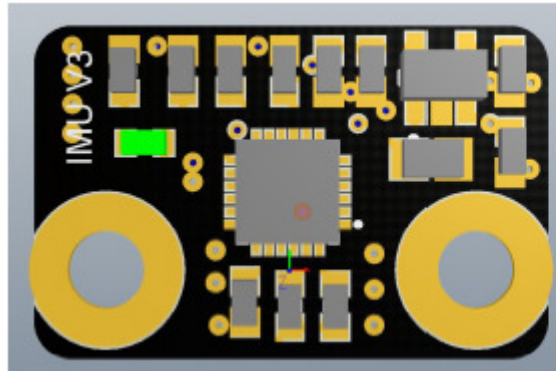
The interface diagram of the main control board is as follows:



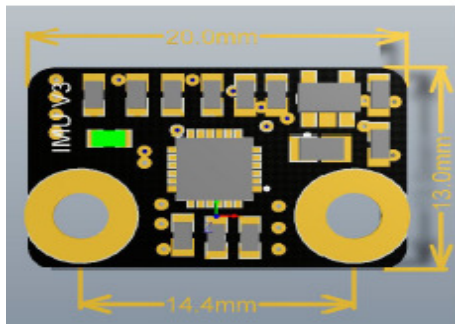
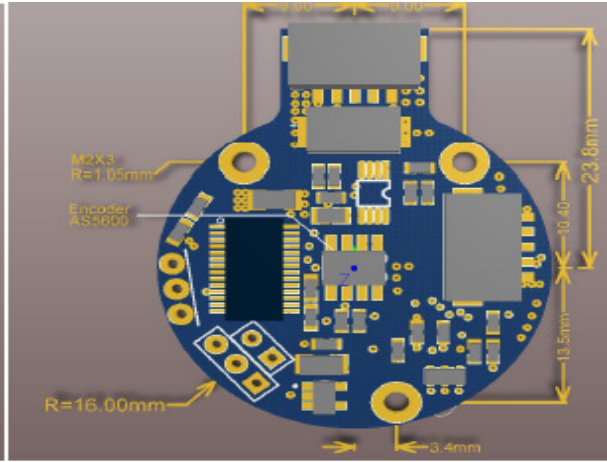
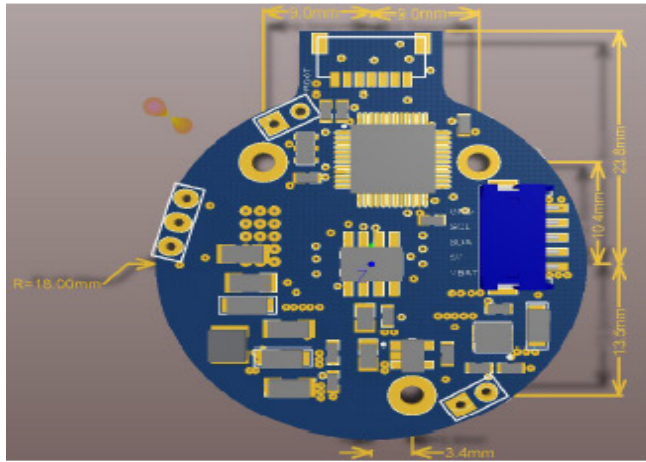
The drive board interface diagram is as follows:



IMU interface diagram:

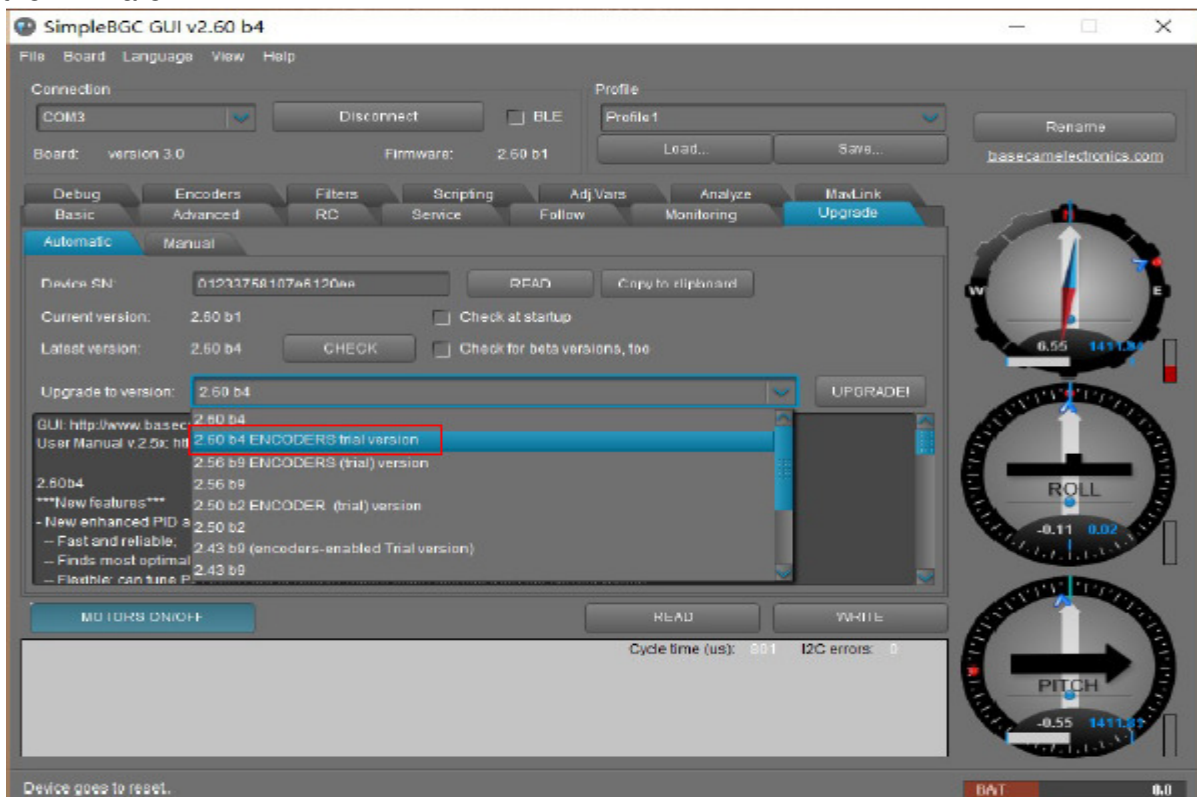


Structure Dimension:

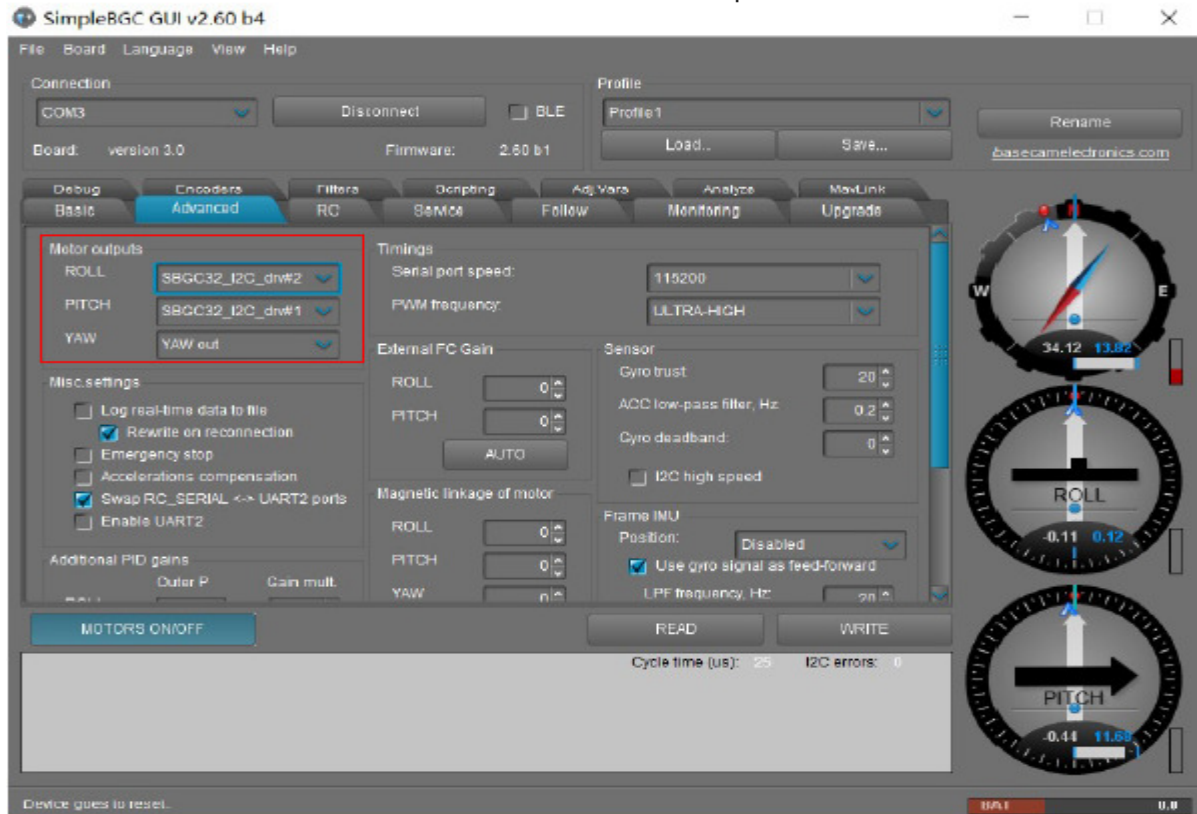


Software settings section:

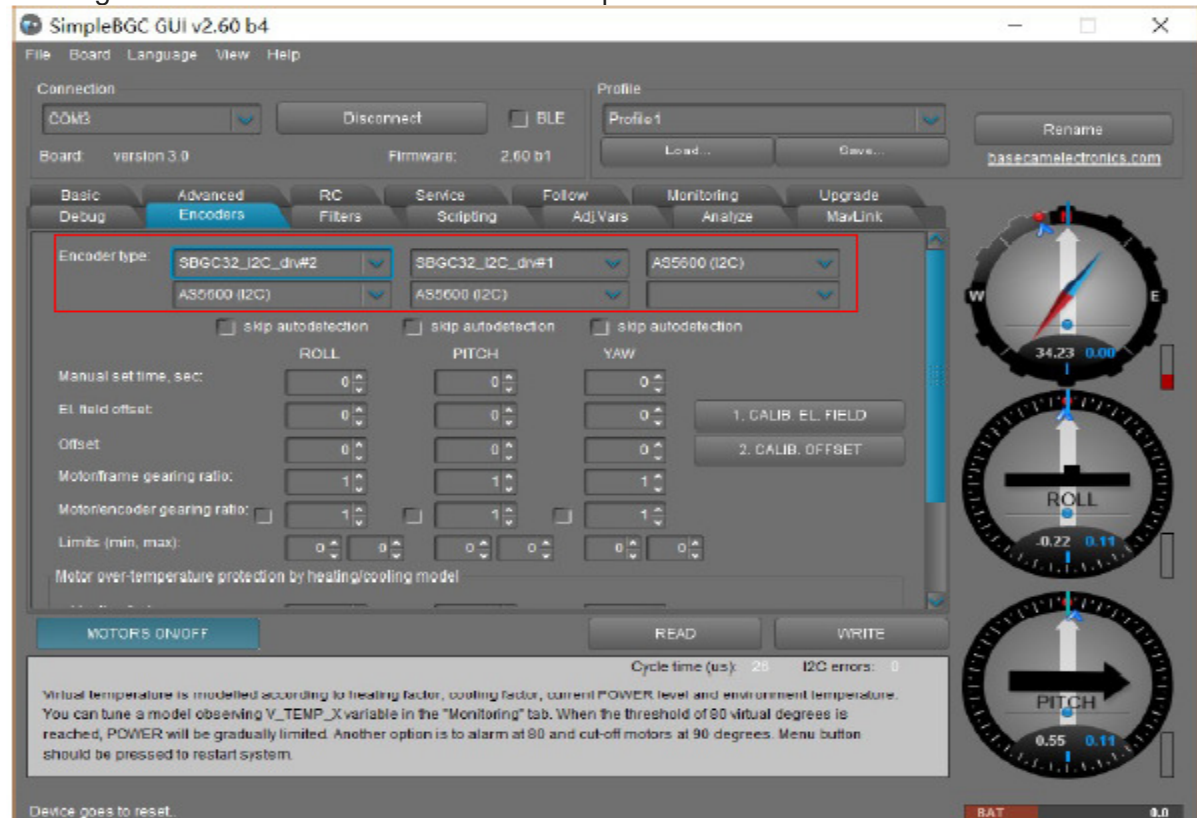
1 Check the firmware version, whether to activate the encoder, if not activated, please update the firmware



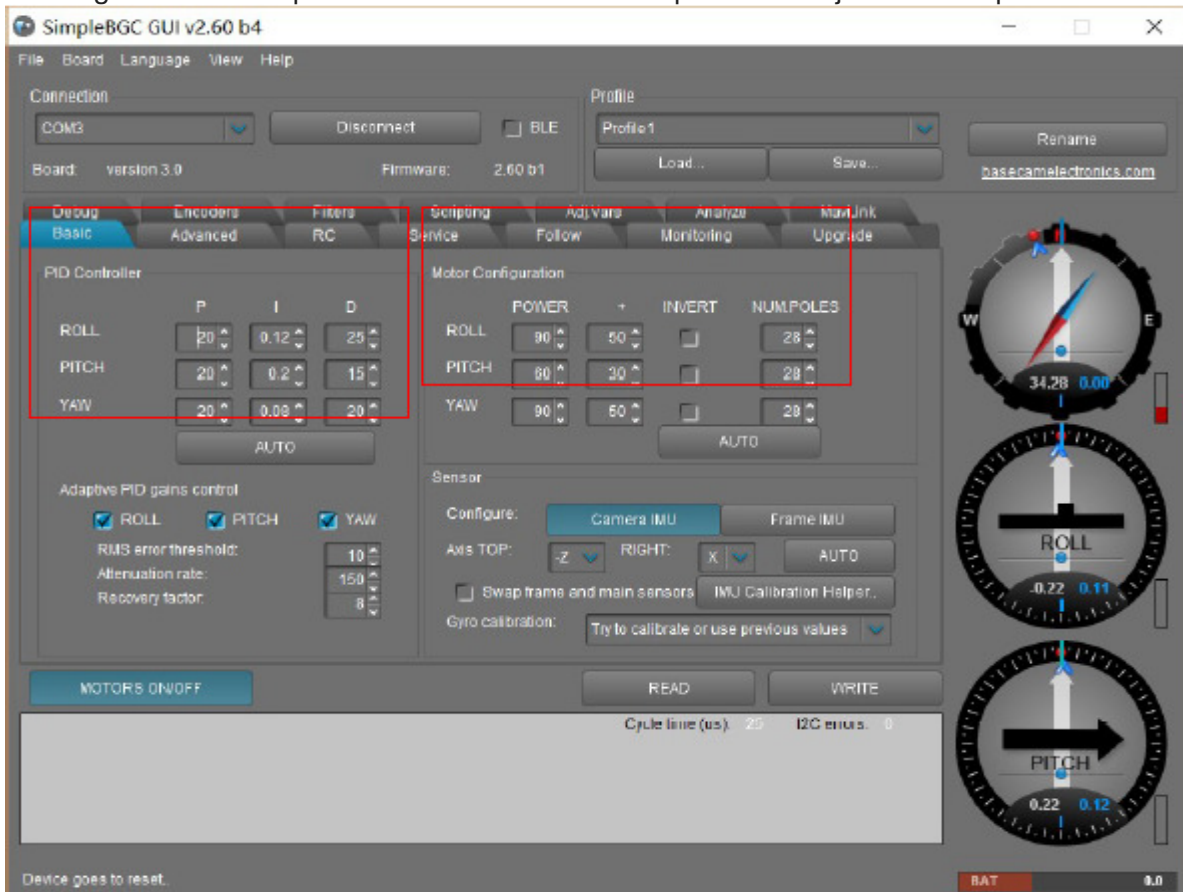
2 Set the address for each module under the advance option



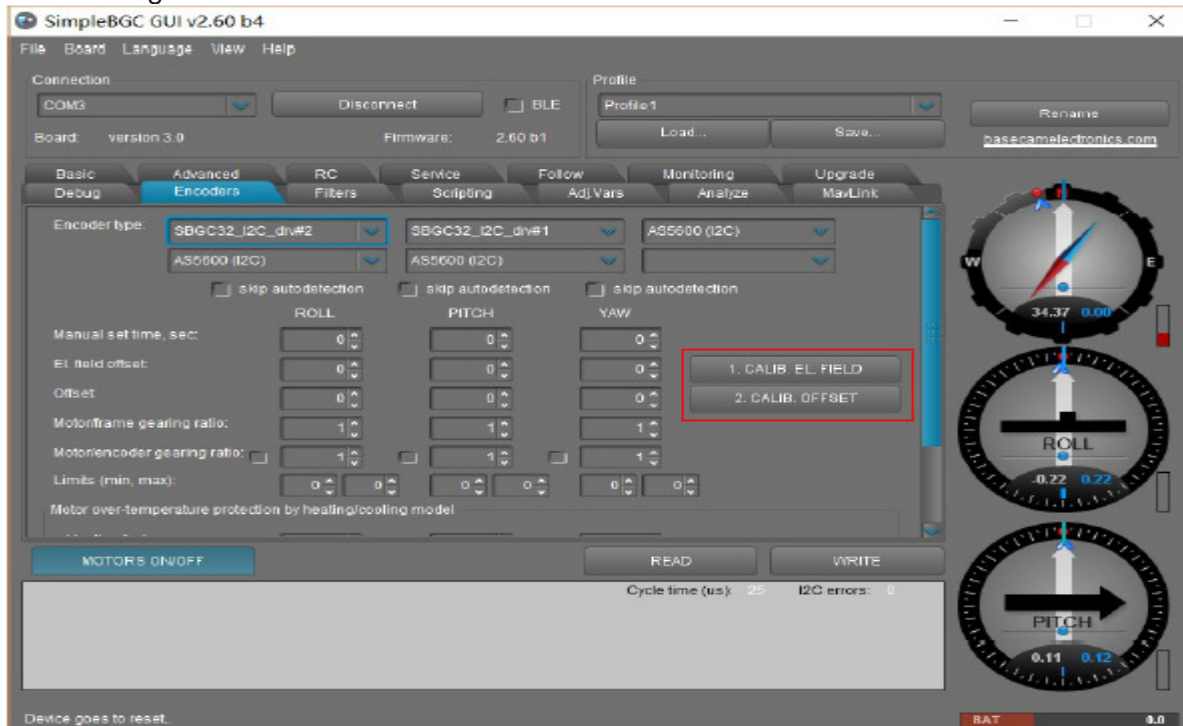
3 Configure the encoder under the encoders option



4 Configure the motor parameters under the basic option and adjust the PID parameters



5 After the above steps are completed, the PTZ can stabilize the work before proceeding with the following encoder calibration



6 Refer to the following information for detailed parameter setting.

https://www.basecamelectronics.com/files/SimpleBGC_32bit_Encoders.pdf

https://www.basecamelectronics.com/files/sbgc32_i2c_drv/SBGC32_I2C_Drv%20Reference%20Manual.pdf