Current problems:

1. Timer 2 cannot be initialized when the project is to be debugged or downloaded. The reason is timer 2 shares a pin with the jtag port when the timer is used in encoder mode.
2. IMU doesn’t respond to the WHOAMI register read always. It’s difficult to understand whether the IMU communicates with the controller.
3. Presence of functions in the while(1) loop causes the motor to consume more current from the supply. This is an observation. Theoretically since the timer is a peripheral and it works on it’s own after initialized, this problem is not well understood. The imu read function causes this problem and once removed the motor takes it’s usual amount of current.
4. Receive UART doesn’t respond to a single character press from a serial terminal. A number of characters have to be entered to get a single character. It can be checked by enabling the Receive UART DMA interrupt and putting a breakpoint in the handler.