

1.A function to remove gyroscope biases:

```
static void remove_gyro_bias()
{
    int16_t x_gyro_bias, y_gyro_bias, z_gyro_bias;
    icm_20948_data data;
    int32_t x_bias = 0, y_bias = 0, z_bias = 0;
    for(int i = 0; i < 500; i++)
    {
        icm_20948_read_data(&data);
        x_bias += (int32_t)data.x_gyro;
        y_bias += (int32_t)data.y_gyro;
        z_bias += (int32_t)data.z_gyro;
        HAL_Delay(2);
    }
    x_gyro_bias = -(int16_t)(x_bias / 2000);
    y_gyro_bias = -(int16_t)(y_bias / 2000);
    z_gyro_bias = -(int16_t)(z_bias / 2000);
    printf("x,y,z %d, %d, %d \n", x_gyro_bias, y_gyro_bias, z_gyro_bias);
    HAL_Delay(100);
    icm_20948_write_reg(_b2, XG_OFFS_USRH, (uint8_t)(x_gyro_bias >> 8));
    icm_20948_write_reg(_b2, XG_OFFS_USRL, (uint8_t)(x_gyro_bias));
    icm_20948_write_reg(_b2, YG_OFFS_USRH, (uint8_t)(y_gyro_bias >> 8));
    icm_20948_write_reg(_b2, YG_OFFS_USRL, (uint8_t)(y_gyro_bias));
    icm_20948_write_reg(_b2, ZG_OFFS_USRH, (uint8_t)(z_gyro_bias >> 8));
    icm_20948_write_reg(_b2, ZG_OFFS_USRL, (uint8_t)(z_gyro_bias));
}
```

1.Call this function inside of the initialization function:

```
sel_user_bank(_b0);
remove_gyro_bias();
```