

```
mpu.ino
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- const int16_t MPU_ADDR = 0x68
-----
+ void mpu_init()

+ float mpu_acc_x()
+ float mpu_acc_y()
+ float mpu_acc_z()

+ float mpu_temp()

+ float mpu_gyro_x()
+ float mpu_gyro_y()
+ float mpu_gyro_z()
```

```
motors.ino
-----
- motor pin assignments
-----
+ void motors_init()
+ void motors_enable(bool enabled)

+ void motors_dir(bool reverse)
+ void motors_dir_left(bool reverse)
+ void motors_dir_right(bool reverse)

+ void motors_pwm(uint8_t duty)
+ void motors_pwm_left(uint8_t duty)
+ void motors_pwm_right(uint8_t duty)
```

```
encoders.ino
-----
- encoder pin assignments
- const float ROBOT_WIDTH = 37.5
- const float WHEEL_CIRC = 47.1
- const float CPR = 3200
-----
+ void encoders_init()

+ float encoders_pos_left()
+ float encoders_pos_right()

+ float encoders_pos_x()
+ float encoders_pos_y()
+ float encoders_pos_phi()

+ float encoders_vel_left()
+ float encoders_vel_right()
-----
- attaches an interrupt to TIMER2_COMPA
```