

MT9912 info page

This settings are for the CG023 code. Some later code updates may have been introduced which may not be present in this older file.

As such, it's probably best to change the latest hardware.h file to match the pins of this one.

- File: hardware.h
- Author: Paweł Stawicki <https://github.com/stawel>
- Source: <http://github.com/stawel/CG023/blob/master/OpenMicro/src/hardware.h>

```
// MT9912 hardware pin settings
//
// HARDWARE PINS SETTING
//
// do not change hardware pins below
// make sure you don't set SWDIO or SWDCLK pins (programming pins)
// if you do, you lose board programmability without a reset pin
//
// example: pin "PB2" ( port b , pin 2 )
// pin: GPIO_Pin_2
// port: GPIOB

// setting procedure:
// set led number zero, led aux number zero
// uncomment DISABLE_SOFTI2C_PINS , DISABLE_SPI_PINS and DISABLE_PWM_PINS
// this will prevent any pins to be used, so that there are no conflicts
// set pins starting with leds, in order to see working status
// do not set PA13 , PA14 (stm32f031) as this will break the programming
interface
// to disable led pins set number to zero

#define LED_NUMBER 3

#define LED1PIN GPIO_Pin_6
#define LED1PORT GPIOB

#define LED2PIN GPIO_Pin_1
#define LED2PORT GPIOB

#define LED3PIN GPIO_Pin_4
#define LED3PORT GPIOB

// ??
// #define LED4PIN GPIO_Pin_0
// #define LED4PORT GPIOA
```

```
// aux leds

#define AUX_LED_NUMBER 0

#define AUX_LED1PIN GPIO_Pin_2
#define AUX_LED1PORT GPIOB

#define AUX_LED2PIN GPIO_Pin_x
#define AUX_LED2PORT GPIOx

// softi2c pins definitons:
// sda - out/in , sck - out

// disable softi2c pins
// #define DISABLE_SOFTI2C_PINS

#define SOFTI2C_SDAPIN GPIO_Pin_7
#define SOFTI2C_SDAPORT GPIOB

#define SOFTI2C_SCLPIN GPIO_Pin_8
#define SOFTI2C_SCLPORT GPIOB

// #define SOFTI2C_GYRO_ADDRESS 0x68
#define SOFTI2C_GYRO_ADDRESS 0x69

// Analog battery input pin and adc channel

#define BATTERYPIN GPIO_Pin_2
#define BATTERYPORT GPIOA
#define BATTERY_ADC_CHANNEL ADC_Channel_2

// SPI PINS DEFINITONS ( for radio ic )
// MOSI , CLK , SS - outputs , MISO input

// disable pins so they don't interfere with other pins
// #define DISABLE_SPI_PINS

#define SPI_MISO_PIN GPIO_Pin_6
#define SPI_MISO_PORT GPIOA

#define SPI_MOSI_PIN GPIO_Pin_7
#define SPI_MOSI_PORT GPIOA

#define SPI_CLK_PIN GPIO_Pin_5
#define SPI_CLK_PORT GPIOA

#define SPI_SS_PIN GPIO_Pin_4
#define SPI_SS_PORT GPIOA
```

```
// PWM PINS DEFINITIONS
// currently pins PA0 to PA3 , PA5 , PA8 to PA11 supported

// pwm pins disable
// disable all pwm pins / function
//#define DISABLE_PWM_PINS

// pwm pin initialization
// enable the pwm pins to be used here ( multiple pins ok)
//#define PWM_PA0
//#define PWM_PA1
//#define PWM_PA2
//#define PWM_PA3
//#define PWM_PA5
#define PWM_PA8
#define PWM_PA9
#define PWM_PA10
#define PWM_PA11

// Assingment of pin to motor
// Assign one pin to one motor

// back-left motor
// motor 0 pin

//#define MOTOR0_PIN_PA0
//#define MOTOR0_PIN_PA1
//#define MOTOR0_PIN_PA2
//#define MOTOR0_PIN_PA3
//#define MOTOR0_PIN_PA5
//#define MOTOR0_PIN_PA8
#define MOTOR0_PIN_PA9
//#define MOTOR0_PIN_PA10
//#define MOTOR0_PIN_PA11

// front-left motor
// motor 1 pin

//#define MOTOR1_PIN_PA0
//#define MOTOR1_PIN_PA1
//#define MOTOR1_PIN_PA2
//#define MOTOR1_PIN_PA3
#define MOTOR1_PIN_PA8
//#define MOTOR1_PIN_PA9
//#define MOTOR1_PIN_PA10
//#define MOTOR1_PIN_PA11

// front-right motor
// motor 2 pin
```

```
//#define MOTOR2_PIN_PA0
//#define MOTOR2_PIN_PA1
//#define MOTOR2_PIN_PA2
//#define MOTOR2_PIN_PA3
//#define MOTOR2_PIN_PA8
//#define MOTOR2_PIN_PA9
//#define MOTOR2_PIN_PA10
#define MOTOR2_PIN_PA11

// back-right motor
// motor 3 pin

//#define MOTOR3_PIN_PA0
//#define MOTOR3_PIN_PA1
//#define MOTOR3_PIN_PA2
//#define MOTOR3_PIN_PA3
//#define MOTOR3_PIN_PA8
//#define MOTOR3_PIN_PA9
#define MOTOR3_PIN_PA10
//#define MOTOR3_PIN_PA11

// gyro orientation
// the expected orientation is with the dot in the front-left corner
// use this to rotate to the correct orientation
//#define SENSOR_ROTATE_90_CW
//#define SENSOR_ROTATE_90_CCW
#define SENSOR_ROTATE_180
```

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