BH1790GLC-EVK-001
Software document

Feb/07/2017
Sensor Application G

■ Sketch file(BH1790GLC.ino)

- setup function
    - Setup serial function(115200bps) to output log data on Serial Monitor
    - Initialize I2C(Wire.begin function) and setup I2C clock(400kHz)
    - Initialize BH1790GLC
    - Setup 32Hz timer and start

- loop function
    - Check the flag about 32Hz period
    - Get the values Optical Sensor Data with LED ON/OFF and display them

- timer_isr function
    - Function to execute @ 32Hz interval

Optical Sensor for Heart Rate Monitor (BH1790GLC)

ROHM
SEMICONDUCTOR

- ■ **Library files (BH1790GLC.h, BH1790GLC.cpp)**
- **constructor**
    - do nothing
- **init function**
    1. Read and check PART_ID, PID and MANUFACTURER_ID register value
    2. Write to MEAS_CONTROL1 register (RDY=1, LED_LIGHTING_FREQ=128Hz, RCYCLE=32Hz)
    3. Write to MEAS_CONTROL2 register (LED_EN[1:0] = 00, LED_ON_TIME=0.3ms, LED_CURRENT=10mA)
    4. Write to MEAS_START register (MEAS_ST=1)
- **get_rawval function**
    - Get the 4bytes raw value from register address 0x54
- **get_val function**
    - Execute get_rawval function
    - Create Optical Sensor Data with LED ON/OFF
- **write function**
    - General write function for BH1790GLC
- **read function**
    - General read function for BH1790GLC

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