1. Introduction

Gyro Click™ is an accessory board in mikroBUS™ form factor. It’s a compact and easy solution for adding gyroscope to your design. It features L3GD20 three-axis digital gyroscope module. Gyro Click™ communicates with the target board microcontroller via mikroBUS™ SPI (MOSI, MISO, SCK, CS), I²C (SDA, SCL), INT and RST lines. The board is designed to use 3.3V power supply only. LED diode (GREEN) indicates the presence of power supply.

2. Soldering the headers

Before using your click board™, make sure to solder 1x8 male headers to both left and right side of the board. Two 1x8 male headers are included with the board in the package.

3. Plugging the board in

Once you have soldered the headers your board is ready to be placed into desired mikroBUS™ socket. Make sure to align the cut in the lower-right part of the board with the markings on the silkscreen at the mikroBUS™ socket. If all of the pins are aligned correctly, push the board all the way into the socket.

4. Essential features

Gyro Click™ with it’s L3GD20 IC is capable of providing the measured angular rate to the external world through a digital interface (I²C, SPI). The L3GD20 has a full scale of ±250/ ±500 / ±2000 dps and is capable of measuring rates with a user-selectable bandwidth. All these features make this board ideal for gaming and virtual reality input devices, motion control, GPS navigation systems and more.
5. Gyro Click™ Board Schematic

6. SMD Jumpers
The Gyro Click™ board communicates with the main board microcontroller via I²C or SPI interface depending on the position of the J1, J2 and J3 SMD jumpers. These jumpers are soldered in I²C interface position by default. There is an option to select the alternate address with jumper J4 in the case of I²C interface (default position is logic 1).

7. Code Examples
Once you have done all the necessary preparations, it's time to get your click board up and running. We have provided the examples for mikroC, mikroBasic and mikroPascal compilers on our Libstock website. Just download them and you are ready to start.

8. Support
MikroElektronika offers Free Tech Support (www.mikroe.com/esupport) until the end of product lifetime, so if something goes wrong, we are ready and willing to help!