

## MPU 6050 GY-521 3 Axis Gyro Accelerometer Sensor Module Arduino



The MPU-6050 sensor module contains an accelerometer and a gyro in a single chip. It is very accurate, as it contains 16-bits analog to digital conversion hardware for each channel. Therefore it captures the x, y, and z channel at the same time. The sensor uses the I2C-bus to interface with the Arduino.

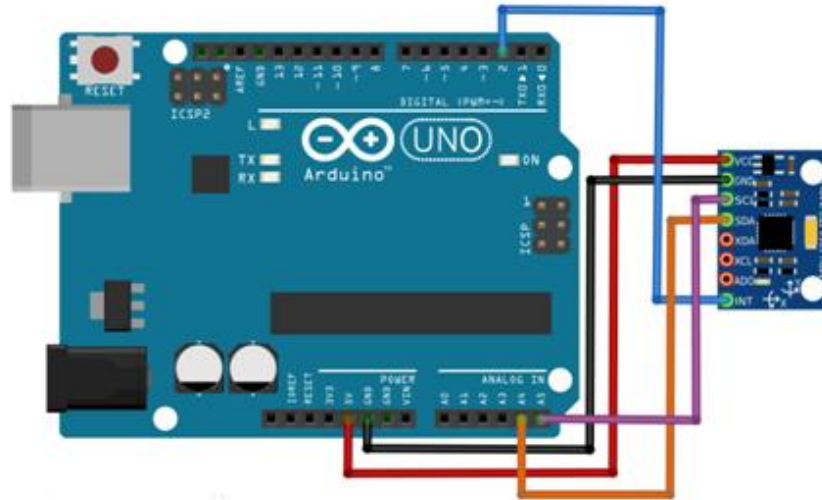
### Application:

- Motion-enabled game and application framework
- Location based services, points of interest
- Handset and portable gaming
- Motion-based game controllers
- Wearable sensors for health, fitness and sports
- Toys

### Features:

- Use the chip: MPU-6050.
- Power supply: 3-5v (internal low dropout regulator).
- Communication modes: standard IIC communications protocol.
- Chip built-in 16bit AD converter, 16-bit data output.
- Immersion Gold PCB machine welding process to ensure quality.
- Tri-Axis angular rate sensor (gyro) with a sensitivity up to 131 LSBs/dps and a full-scale range of  $\pm 250$ ,  $\pm 500$ ,  $\pm 1000$ , and  $\pm 2000$ dps
- Tri-Axis accelerometer with a programmable full scale range of  $\pm 2g$ ,  $\pm 4g$ ,  $\pm 8g$  and  $\pm 16g$

### Pin Assignment:



### Schematic:

