# Grove - IMU 10DOF v2.0

SKU 101020252



## DESCRIPTION

Last time, we released a 10 degree of freedom sensor Grove - IMU 10DOF, which is a combination of Grove - IMU 9DOF and Grove - Barometer Sensor(BMP180).As BOSCH has released its BMP280,and upgrade version of BMP 180. It is the perfect time to upgrade our Grove too.so here it is, Grove - IMU 10DOF V2.0.

The Grove - IMU 10DOF V2.0 is based on MPU-9250 and BMP280.MPU-9250 is still the most compatible 9-aixs motion tracking device which combines a 3-axis gyroscope, 3-axis accelerometer, 3-axis magnetometer and a Digital Motion Processor (DMP) in a 3*3*1mm package. Regarding BMP280, the main change from Grove IMU 10DOF V1.0, this time it is housed in an extremely compact package that is 65% smaller than BMP180. Not just the size, the power consumption is even lower to be as low as 2.74uA@1Hz.

With the perfect combination of MPU-9250 and BMP280, the Grove IMU 10DOF can provide in total 10 axes of data to you, allows you to build mobile projects such as smartphone, wearable devices, Quadrotor, you can even build a joystick controller like PSP and Xbox on your own.

# NOTE

• Since it is a combination of MPU-9250 and BMP280, you are highly suggested to visit our wiki for detail datasheet and other instructors.

• As a kindly reminder, please pay attention not to touch the barometer pressure sensor by hand.

• For advanced users, if you want to change the I2C address of MPU-9250 and BMP280, you can cut the ADDR and connect the new ADDR board you want.

## FEATURES

• Digital-output X-, Y-, and Z-Axis angular rate sensors (gyroscopes) with a user-programmable full-scale range of ±250, ±500, ±1000, and ±2000°/sec
• Digital-output 3-Axis accelerometer with a programmable full scale range of ±2g, ±4g, ±8g and ±16g
• Digital-output magnetometer with a full scale range of ±4800uT
• Temperaure measurement with ±1.0°C accuracy
• Barometric pressure measurement range 300 - 1100 hPa with ±1.0 hPa accuracy

## SPECIFICATION

• Input Voltage: 5V/3.3V
• Working Current: 6mA
• Working Temperature：-40 – 85℃
• Size: 20*40mm
• Weight: 3g
• Programmable interrupt