

## OVERVIEW

## TECHNICAL SPECIFICS

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### Description

Operating Voltage      5V and 3.3V

Power Consumption    50mW

The 9 Axes Motion Shield can be programmed with the Arduino software ([download](#)).

### Power

The Arduino 9 Axes Motion Shield has no power jack and is powered only when attached to an Arduino board.

### Input and Output

The shield features several TinkerKit input/output and communication interfaces. Connecting TinkerKit modules can simplify the creation of a project or a prototype.

The on-board connectors are :

- 2 TinkerKit Inputs: IN2 and IN3 (in white), these connectors are routed to the Arduino A2 and A3 analog input pins.
- 2 TinkerKit Outputs: OUT5 and OUT6 (in orange), these connectors are routed to the Arduino PWM outputs on pins 5 and 6.
- 2 TinkerKit TWI: these connectors (4-pin in white) are routed on the Arduino TWI interface. Both connect to the same TWI interface to allow you to create a chain of TWI devices.

### Physical Characteristics

The maximum length and width of the 9 Axes Motion Shield PCB are 2.7 and 2.1 inches respectively. Four screw holes allow the board to be attached to a surface or case. Note that the distance between digital pins 7 and 8 is 160 mil (0.16"), not an even multiple of the 100 mil spacing of the other pins.

### Compatible Boards

The Arduino 9 Axes Motion Shield is compatible with Uno, Yùn, Leonardo, Ethernet, Mega, Due, M0 and M0 Pro boards. When using the Arduino 9

Axes Motion Shield, be sure to solder the Interrupt bridge and Reset bridge in the correct position depending on the connected Arduino board. See table:

BOARD	INTERRUPT PIN	RESET PIN	Slave TWI address
Arduino Uno	D2	D4	0x28 (default)
Arduino Leonardo	D7	D4	0x28 (default)
Arduino Yun	D7	D4	0x28 (default)
Arduino Ethernet	D2	D4	0x28 (default)
Arduino Due	D2	D4	0x28 (default)
Arduino Mega	D2	D4	0x28 (default)
Arduino M0	D7	D4	0x28 (default)
Arduino M0 Pro	D7	D4	0x29 (default)

For example to use 9 Axes Motion Shield with Arduino UNO solder the Interrupt bridge on the pin D2.



Although the default TWI slave address 0x28 is compatible with almost all the Arduino Boards, in case you are connecting the 9 Axes Motion shield to the M0 Pro you need to change the address from 0x28 to 0x29 by moving the 0Ω resistor from the default position to the adjacent one as shown by the picture:

