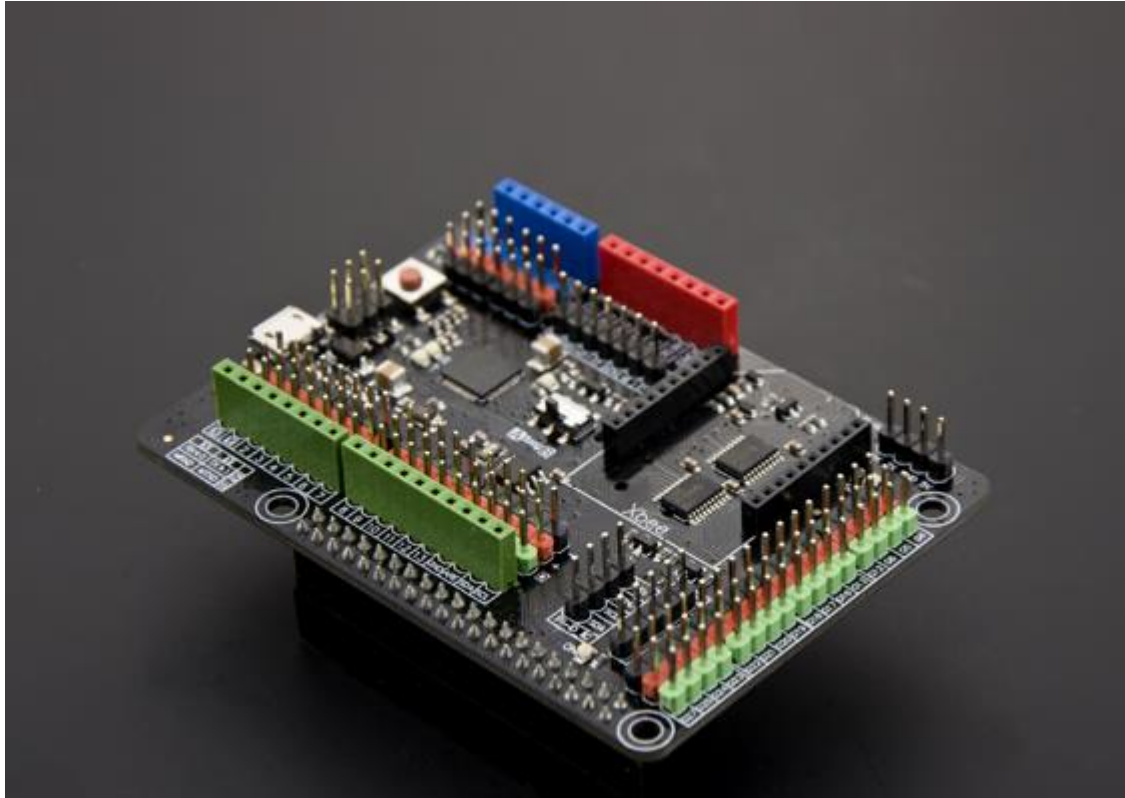# Gravity: Arduino Shield for Raspberry Pi B+/2B/3B/3B+

SKU:DFR0327

INTRODUCTION

What's the difference between Raspberry Pi and Arduino?

We all know Raspberry Pi is a mini-computer running on Linux operating system; while Arduino is a microcontroller running on simple I/Os. Both of them focuses on very different areas. Compared with Arduino, the Pi gets much better computing performance.

So What happens when a Raspberry Pi meets an Arduino?

A simple example would be, when building a mobile robot, we use the Raspberry Pi to extend its vision and get a nice tiny monitor. Meanwhile, Arduino handle nicely with the motor driving part and delivers fast responses like obstacle avoidance. Because, without the OS, the response time of rapid changes on the Arduino is much shorter. Also the high performance Pi can deals much easily with wireless communications, imaging and running complex algorithm.

Therefore, with the Arduino and Pi together, you get a powerful "brain" and "cerebellum" for your project, at one time.

SPECIFICATION

- Onboard Microcontroller: ATmega32u4

- Arduino Leonardo Chip

- Arduino Compatible pin mapping

- Compatible with All arduino standard shield and sensors

- System Voltage: 5v

- Arduino Digital I/O: 20

- Arduino Analog I/O: 6

- Raspberry Pi B+ GPIO: 16

- Raspberry Pi B+ I2C: 1

- Raspberry Pi B+ ID_I2C: 1

- Raspberry Pi B+ SPI: 1

- Raspberry Pi B+ TTL UART: 1

- Dimension: 86mm x 61mm x 26mm (3.46" x 2.20" x 1.02")