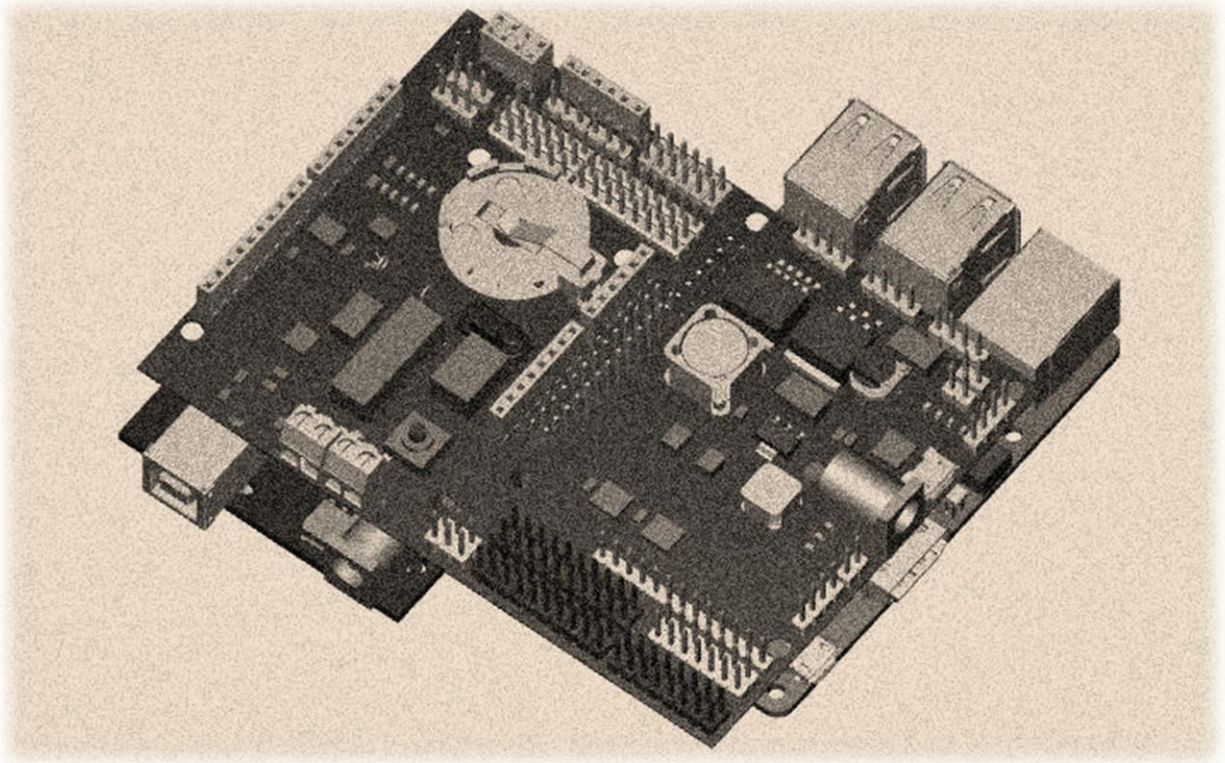


Bridge Shield

for Pi & Uno

The Bridge Shield is a board for Students, Hackers & Researchers which can use along with Pi or Arduino Uno or both to create unimaginable out of the box projects with ease.



What does it have?

- 10 DOF IMU.
- Temperature Sensor.
- Dual Bridge motor driver which can drive motors up to 1Amp.
- 8 channel Servo Motor Driver which works on I2C.
- RTC with coin cell backup provision.
- Open 5V-3.3V bidirectional voltage level converter.
- Level Shifting for SPI, I2C, UART between Arduino Uno & Raspberry Pi.
- Attiny85 micro-controller loaded with Arduino boot loader.
- Header for ESP8266 Wi-Fi Module.
- Header for HC-05 Bluetooth Module.
- IR Sensor for wireless remote control.
- USB to UART Module.
- Single input source of 12V which power Pi and Arduino Uno
- It has one variable voltage regulator of 3A, a 5V/3A voltage regulator and a 3.3V/1A voltage regulator.

Bridge Shield

for Pi & Uno

- Two cell Lithium Ion battery charger with led and signal pins to monitor battery charge status.
- Intensity variable LED controlled through I2C.
- Its mechanical construction makes it compatible with most of the stack able Arduino Uno and Raspberry Pi shields.

What have we done with it?

We build an internet controlled Tele-operated Robot. Used it for home automation to control light, fan, made an IP Camera & even made a battery backed Pi with is like a Laptop.

What can you do with it?

By combining both Arduino and raspberry pi one can achieve projects which are beyond imagination. It is up to you how you can use our board to build tinkered projects which are fun and innovative. General things we can think that your will be able to use it for are an autonomous robot or a self-balancing robot or you can think of building your drone with it making best use of the 10 DOF. If you are developing some home automation project you can use the sensor capabilities of our board to create your project .Most of our sensors work on I2C and the on board motor drivers will help you trigger actuators like Servo, DC & Stepper motor.

We have completed the first prototype and have tested it. Based on the first prototype test and user experience we have made a few changes on the second version. Currently we are planned to post this project on a crowd funding website for which we need your valuable feedback/Opinion which we can use and create a better product and you can even help us by sharing this document with your friends and family. We have made some videos to show how this board can be used. You can watch the video on our website and YouTube channel.

Links: <https://www.youtube.com/watch?v=ybjNZfOcWu0>

<http://armtronix.net>