

# **Protoshield Kit for Arduino**



Build your own Arduino shield using the compact and flexible Proto Shield kit. Solder together a limitless range of circuits and reuse it in all your Arduino projects. A standard 0.1" prototyping grid accepts commonly used through-hole parts and chips. Basic components (resistors, potentiometer, LEDs, switches) are included to help you get started with your custom shield.

#### **Features**

- Arduino compatible
- Large 0.1 inch pitch prototyping area
- A variety of through-hole sizes to fit most parts
- Arduino UART and I2C port pin breakouts for easy external communication interfacing
- Dual ISP breakouts for easy programming and stacking
- 3.3 volt, 5 volt, and ground power rails are easily available anywhere on the board
- Breadboard style prototyping area
- USB type B connector
- Basic components included (buttons, switches, LEDs, resistors, USB jack)

# Compatibility

We have produced a lot of extension board that can make your platform board more powerful, however not every extension board is compatible with all the platform board, here we use a table to illustrate how are those boards compatible with platform board.

#### Note

Please note that "Not recommended" means that it might have chance to work with the platform board however requires extra work such as jump wires or rewriting the code. If you are interested in digging more, welcome to contact with techsupport@seeed.cc.

# Click to see full picture

	Arduino Uno Seeeduino v4.2	Arduino Mega Seeeduino Mega	Zero(m0) LoraWan	Arduino Leonardo Seeeduino Lite	Arduino 101	Arduino Due 3.3v	Intel Edison 5v	Linkit One
2.8" TFT Touch Shield V2.0	bmp nonsupport	bmp nonsupport	Not recommended	bmp nonsupport	Not recommended	Not recommended	Not recommended	Not recommended
Base Shield V2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Camera Shield	Only Pin234567	Hardware Serial OK	Not recommended	Not recommended	Yes	Hardware Serial OK	No	No
EL Shield	Yes	Yes	No	Yes	No	No	No	No
Energy Shield	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
GPRS Shield	Not recommended	Not recommended	Yes	Yes	Yes	Not recommended	Yes	No need
Motor Shield V2.0	Yes	Stepper motor only	No	Yes	Stepper motor only	Stepper motor only	No	No
Music Shield V2.0	Yes	Yes	Not recommended	Yes	Yes	Yes	Yes	Yes
NFC Shield V2.0	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Protoshield Kit for Arduino	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RS232 Shield	Yes	Yes	No	Yes	No	No	No	No
Relay Shield V3.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SD Card Shield ¥4.0	Yes	Yes	Not recommended	Yes	Yes	Yes	No	No
Seeed BLE Shield ¥1	Yes	Not recommended	Not recommended	Yes	No need	Not recommended	Not recommended	No need
¥5500 Ethernet Shield	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wifi Shield(Fi250) V1.1	Not recommended	Not recommended	Not recommended	Yes	Yes	Not recommended	No need	No need
Wifi Shield W2	Yes	Not recommended	Not recommended	Yes	Yes	Not recommended	No need	No need
XBee Shield V2	Yes	Not recommended	Not recommended	Yes	Yes	Not recommended	Not recommended	Not recommended
								-

### Components included in the kit

- 1 Arduino compatible Proto Board
- 1 B type USB connector
- 1 40-pin 2.54mm male long header
- 1 40-pin 2.54mm female header
- 2 40-pin 2.54mm male headers
- 1 40-pin 2.54mm spacer
- 3 8-pin 2.54mm female headers
- 1 6-pin 2.54mm female header
- 1 ISP female pin header
- 1 ISP male pin header
- 1 10k ohm potentiometer
- 4 1k ohm resistors
- 2 10k ohm resistors
- 2 3mm red LEDs
- 2 3mm green LEDs
- 1 3mm dual color LED
- 4 Mini push button switches
- 2 DPDT switches

### **Board trace schematic**



### Assembly

**Step 1:** Solder the Red LED to the holes in the Power Socket outline. Be sure to match the flat side of the LED with the outline on the board. Solder the green LED to the holes in the pin13 outline on the board, again, matching the flat side of the LED to the board outline. Solder two 1K resistors to R1 and R2. Solder Reset button and ISP header per the picture below. Note: The reset button is easier to install if you insert it before inserting the ISP header.



**Step 2:** Solder the female and male connectors. Note: solder ADC6 and ADC7 **ONLY** if your are using a Seeeduino. When using an Arduino, do **NOT** solder ADC6 and ADC7.





**Step 3:** Solder the USB connector to the USB port, and the potentiometer in the 80 mil holes. Solder the bottom left Power pins to suit your project.



Your finished kit should look similar to the picture above.

#### Resources

• Sources file

## **Tech Support**

Please submit any technical issue into our forum or drop mail to techsupport@seeed.cc.

http://wiki.seeedstudio.com/Protoshield\_Kit\_for\_Arduino/5-24-1