



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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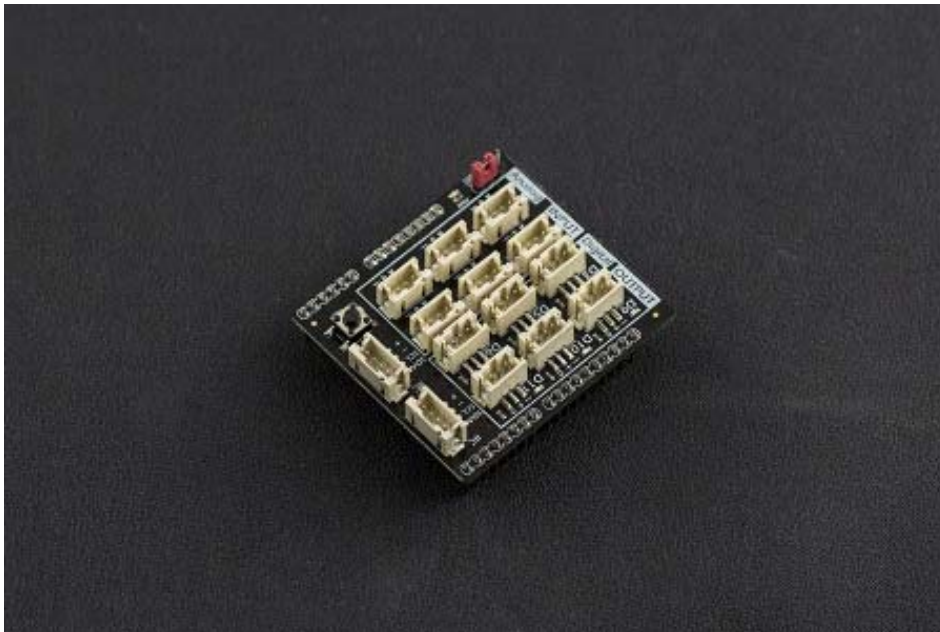
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## Cookie I/O Expansion Shield V2 SKU: DFR0375



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### Introduction

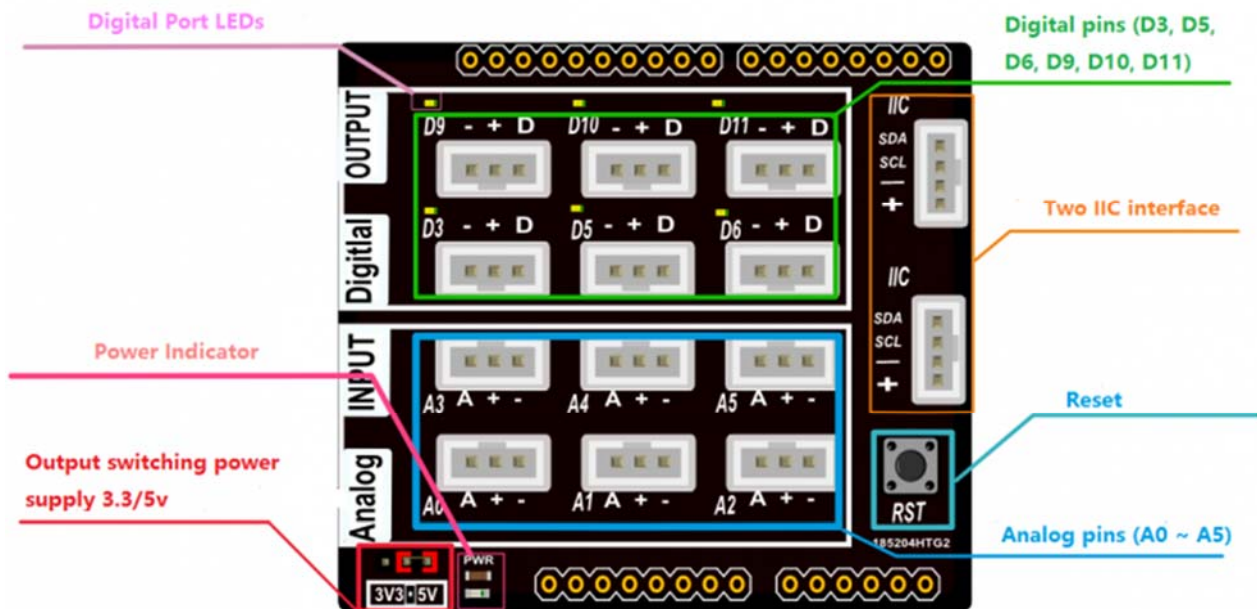
The Cookie I/O expansion shield is designed for beginners to electronics. The shield is directly compatible with the Boson kit. We have implemented fail-safe systems to prevent bad connections from destroying the board. The board is protected from reverse voltage input. And connector ports

only accept connections the correct way around. These fail safes make the board ideal for beginners and classroom settings - no need to worry about your students making the wrong connections!

## Features

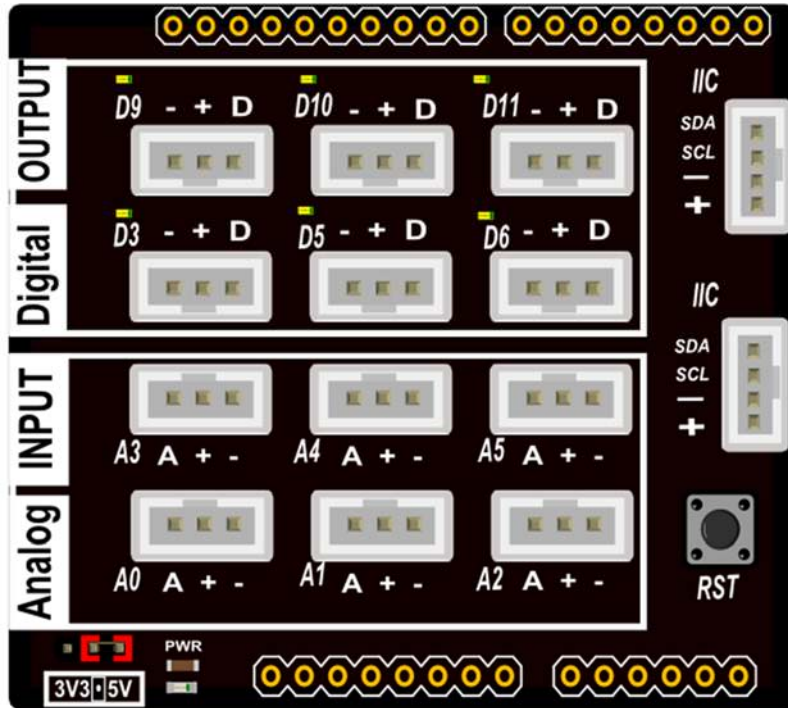
- 6 x PH2.0-3P interface digital ports: D3, D5, D6, D9, D10, D11
- 6 x PH2.0-3P Interface analog ports: A0 - A5
- Two I2C ports, PH2.0-4P Interface
- 5V or 3.3V power supply (selected via power jumper cap)
- Size: 58 \* 52 mm / 2.28 \* 2.04 inches

## Pin Definitions



## Details

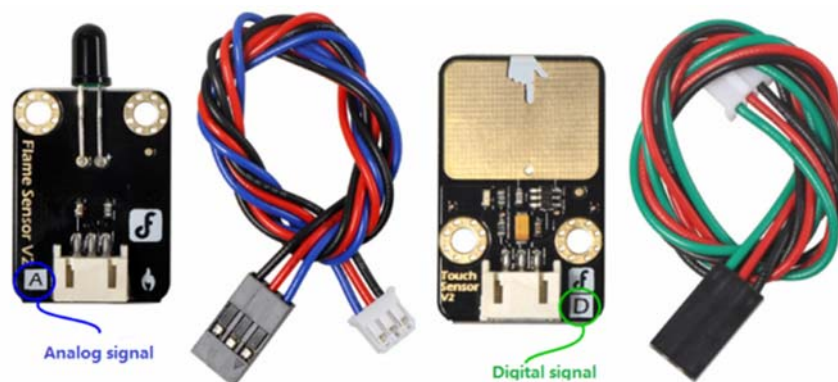
### Digital & Analog



"D": represents digital signal  
 "A": represents analog signal

One of the biggest benefits of the I/O expansion shield is increased power and GND pins, allowing you to connect more sensors.

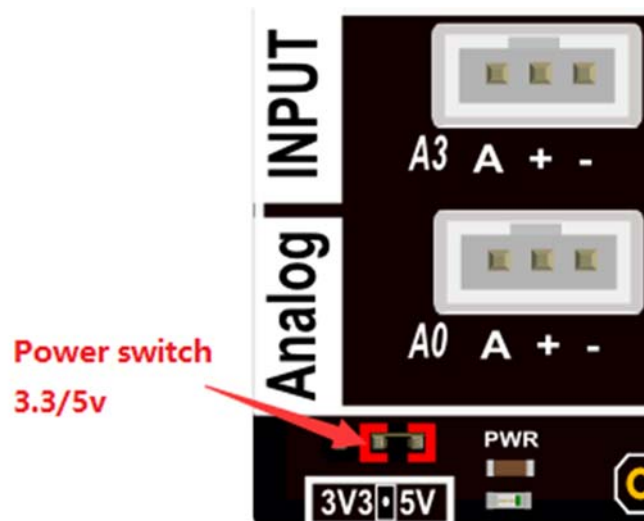
- \* Green: digital signal
- \* Blue: analog signal
- \* Red: VCC
- \* Black: GND



- This is DFRobot's **Gravity Interface**. Digital and analog connections are easy to recognize and support most of DFRobot's I/O expansion shields and modules. Search "**Gravity**" in the DFRobot store to find compatible modules.

### 3.3V / 5V Power Switching

The shield is compatible with 3.3V and 5V logic. Select desired voltage by shorting either the 3.3 or 5v pins as pictured.



### Cookie I/O Expansion Shield Applications

#### You will need:

- **Hardware**
  - UNO Dashboard x1
  - DFR0375 Expansion Shield x1
  - Analog Sensors (Ambient Light Sensor) x1
  - Jumper Cables
- **Software**
  - Arduino IDE V1.6.5 [click to download Arduino IDE](#)

- Sample Code

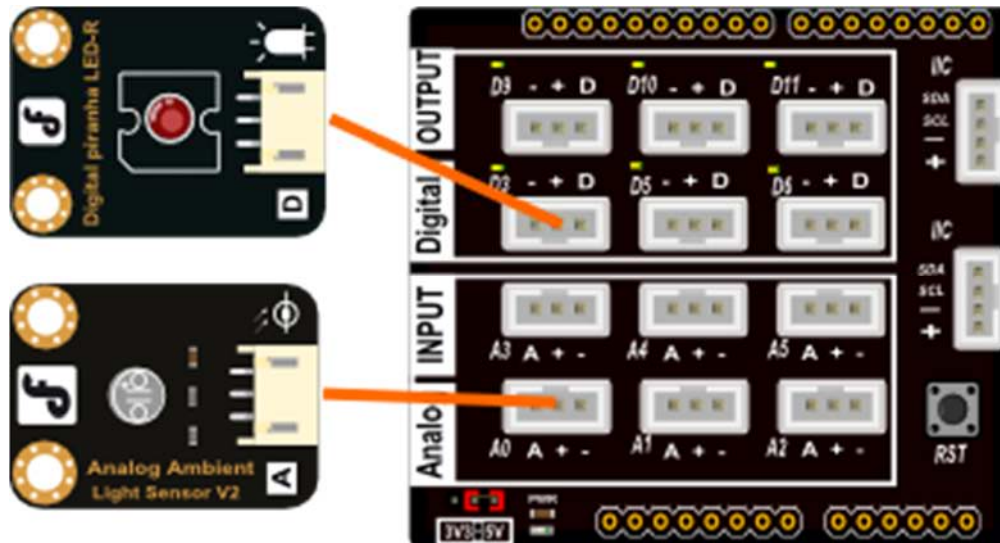
```
1 int light=0;
2
3 void setup() {
4   // put your setup code here, to run once:
5   pinMode(3,OUTPUT);
```

```

6  Serial.begin(9600);
7  }
8  void loop() {
9    // put your main code here, to run repeatedly:
10  light=analogRead(0);
11  Serial.println(light);
12  if(light>100)
13    digitalWrite(3,HIGH);
14  else digitalWrite(3,LOW);
15  delay(100);
16  }

```

When there is low ambient light, the LED will turn ON.



## FAQ

For any questions/advice/cool ideas to share, please visit [DFRobot Forum](#).