



## Breadboard Plugin Components Pack SKU:KIT0098



### Overview

Breadboard-Plugin series is a new kit for breadboard experiment. It provides convenient, reliable and reusable components, plugins and modules. This innovative approach will solve the following issues when using a breadboard:

- The problem by using DIP type of components  
Hard to read the value (Resistor color codes)  
Severe deformations of the pin after used, non-reusable, not environment-friendly  
The pin diameter is too thin or too thick, poor match with the breadboard hole  
Confused the order of transistor “e”, “b”, “c” pins
- Usage problem: Most of sensors and actuators require 3 interfaces: Signal/VCC/GND, you have to use the jumper wire for the connection, messy and unreliable.

### Features

- **Easy to recognize** : Resistance value, capacitance values, positive/negative polaron and pin functions are marked clearly.
- **Easy to learn** : The circuit symbol is clearly visible, directly match the circuit diagram
- **Easy to use** : Direct-plug pin
- **Easy to Plug/unplug** : The 0.64mm diametral pin matches the breadboard hole perfectly
- **High-reliability** : ENIG technology, the circuit connection is reliable and durable
- **Environment-friendly** : Reusable and Environment-friendly

Breadboard-Plugin is designed by Maker LeoYan, produced and sold by DFRobot

## Specification



resistors

### Resistors

#### Description

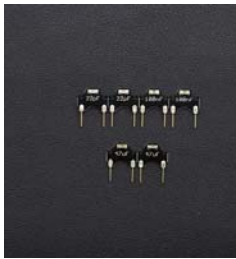
Package: 1206

Resistance: 220R, 1K, 4.7K, 10K

Pins: 2

Lead Pitch: 4x2.54mm (400mil)

Dimensions (without pins): 13.8 (w) x 11.4 (h) mm



Capacitors

### Capacitors

#### Description

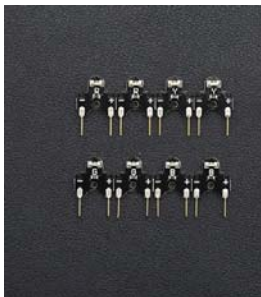
Package: 1206

Capacitance: 22pF@50V, 100nF(0.1uF)@50V, 47uF@10V

Pins: 2

Lead Pitch: 4x2.54mm (400mil)

Dimensions (without pins): 13.8(W) x 11.4(H) mm



Leds

### Leds

#### Description

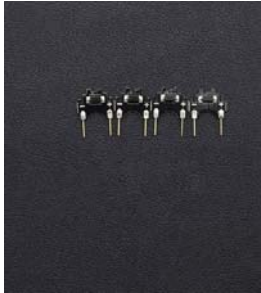
Package: 1206 (PCB integrates current limiting resistance)

Color: Red (R), Yellow (Y), Green (G), Blue (B)

Pins: 2

Lead Pitch: 4x2.54mm (400mil)

Dimensions (without pins): 13.8(W) x 14.5(H) mm



Diodes

### Diodes

#### Description

Type: SS14 (Schottky Barrier Rectifiers)

Parameter:  $I_f=1A$ ,  $V_{fm}=0.7V$ ,  $V_r=40V$

Pins: 2

Lead Pitch: 4x2.54mm (400mil)

Dimensions (without pins): 13.8(W) x 11.5(H) mm



Transistor-NPN

### Transistor-NPN

#### Description

Type: BC817-25

Parameter:  $V_{ceo}=45V$ ,  $I_c=500mA$ ,  $hFE=400$

Pins: 3

Lead Pitch: 2x2.54mm (200mil)

Dimensions (without pins): 13.8(W) x 11.7(H) mm



Transistor-PNP

### Transistor-PNP

#### Description

Type: BC807-25

Parameter:  $V_{ceo}=-45V$ ,  $I_c=-500mA$ ,  $hFE=400$

Pins: 3

Lead Pitch: 2x2.54mm (200mil)

Dimensions (without pins): 13.8(W) x 10.7(H) mm

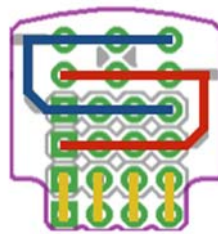


Breadboard Plugin Connector

Breadboard Plugin Connector
Description
Support 4 x 3-Pin modules
Dimensions: 15.2x16.2mm

### Instructions

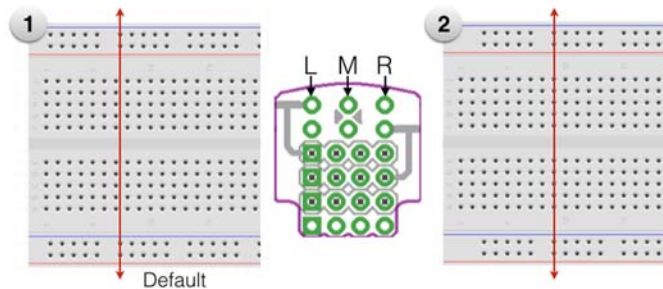
1. **Breadboard Plugin Connector**
  - **Circuit Schematic**



- **Breadboard**

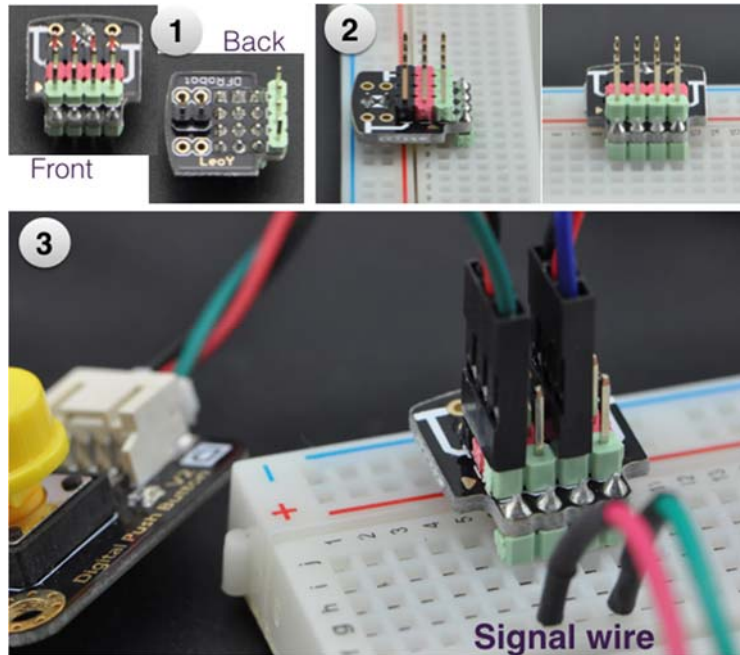
The kit supports following kinds of breadboard:

- Breadboard 1: it is the default supported breadboard, can use it directly.
- Breadboard 2: If using this kind of bread board, resolder Pin at "M" and solder the Pin to "L" or "R".



- **Usage tutorial**

1. Recognize the front and back
2. Plug the back pins into Breadboard
3. Plug the Module on the breadboard plugin board. (Please notice the power polarities)



For any question/ advice/ cool idea to share with us, please visit **DFRobot Forum** or Email to Techsupport Team <techsupport@dfrobot.com>.