

# 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

### **Description**

Package: 1206

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

Pins: 2

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

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



### Capacitors

#### **Description**

Package: 1206

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

Capacitors

Pins: 2

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

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



#### 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

#### **Description**

Type: SS14 (Schottky Barrier Rectifiers)

Parameter: If=1A, Vfm=0.7V, Vr=40V

Pins: 2

Diodes

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

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



#### Transistor-NPN

### **Description**

Type: BC817-25

Parameter: Vceo=45V, Ic=500mA, hFE=400

Pins: 3

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

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



#### **Transistor-PNP**

#### **Description**

Type: BC807-25

Parameter: Vceo=-45V, Ic=-500mA, hFE=400

Pins: 3

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

Transistor-PNP

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



## **Breadboard Plugin Connector**

#### **Description**

Support 4 x 3-Pin modules

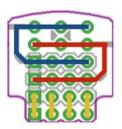
Dimensions: 15.2x16.2mm

Breadboard Plugin Connector

#### Instructions

### 1. Breadboard Plugin Connector

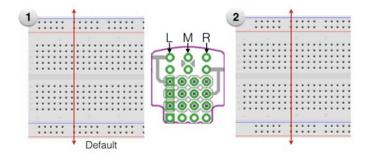
#### • Circuit Schematic



#### Breadboard

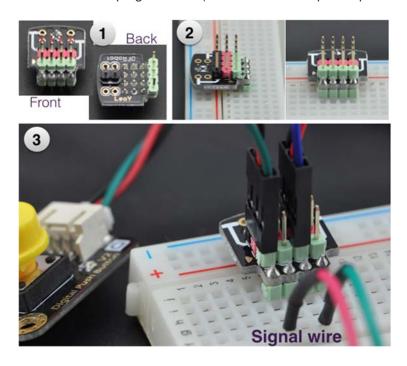
The kit supports following kinds of breadboard:

- 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>.