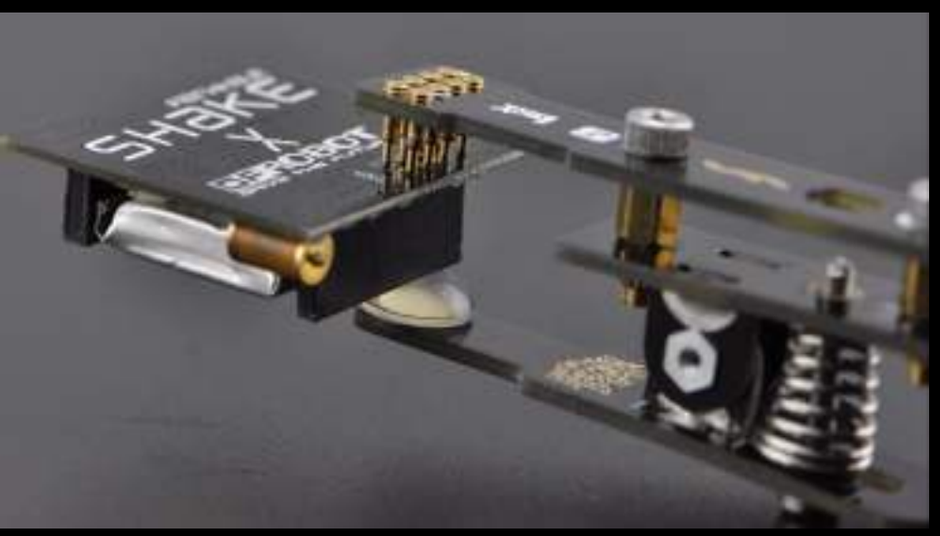
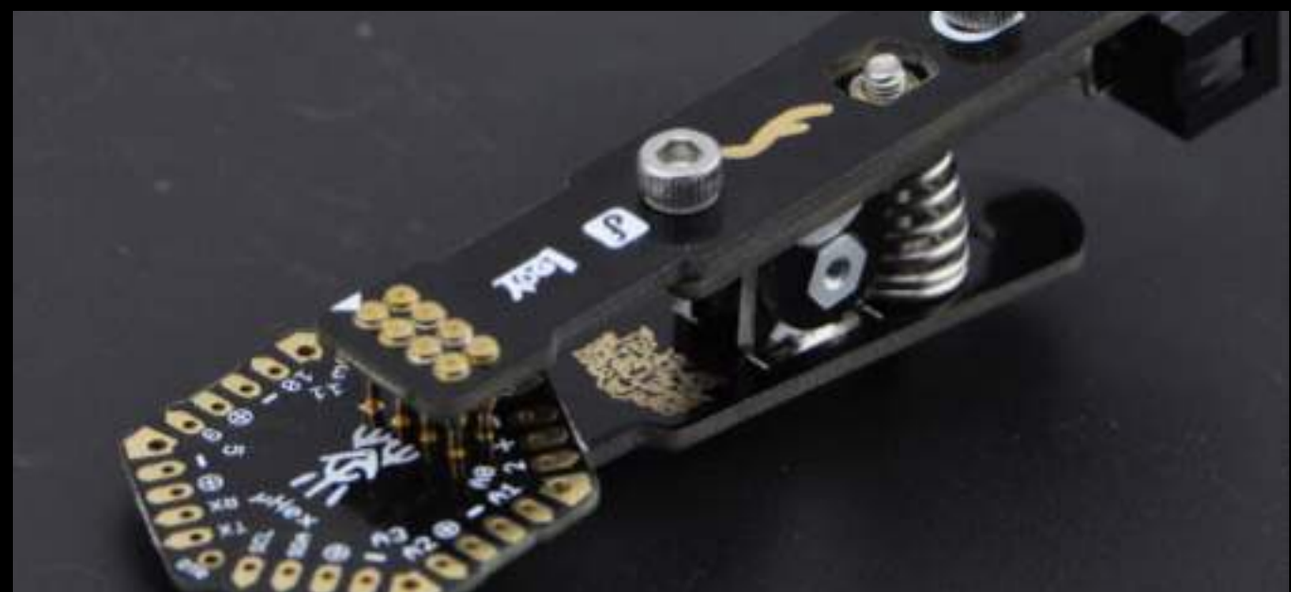


eClip Handbook

Leo Yan

2015-6



- Introduction
- Make the Base
- Make the Function-Board
- Usage

eClip Introduction

eClip is an innovative programming/test tool, which can be used on small sized boards or products. With 2x4 pogo-pins function-board, it is easy to be used for Arduino/AVR MCU. This tool supports extension, you can designed dedicated function-board to meet your specific requirements.

It is a DIY kit, you can enjoy soldering and assembling.

Designed by LeoYan, Sold by DFRobot.

Features:

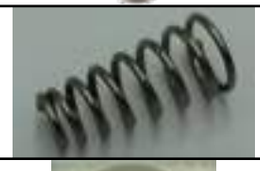
1、The eclipse is made by two part: the Base and Function-board. You can design and use your own Function-Board.

2、Support 2mm and 2.54mm programming interface (2x4) with golden pogo-pins, which could be applied to ICSP and FTDI.

3、Adjustable clamping range and force.

4、Based on PCB material, easy to DIY.

KIT List - Base

Part	Quantity	Sketch
Base PCB Panel	1	
Cast Insert-M3x4	3	
Screw-M3x18	1	
Screw-M3x5	2	
Coil Spring	1	
Adhesive Semisphere-Mat	1	
Internal thread Stud-M2x10	1	
Screw-M2x5	1	
Standoff-M3*6	4	

KIT List - Function-Board

Part	Quantity	Sketch
Function-Board PCB Panel	1	
Pogo-2x7.5	8	
Pogo-1.5x8.0	8	
DC3-8P-2.54	2	

Note: There are some spare parts in the KIT.

Preparing Tools

- Abrasive paper
- Small phillips screwdriver (M2 Screw)
- Soldering iron
- Soldering tin

- Introduction
- Make the Base
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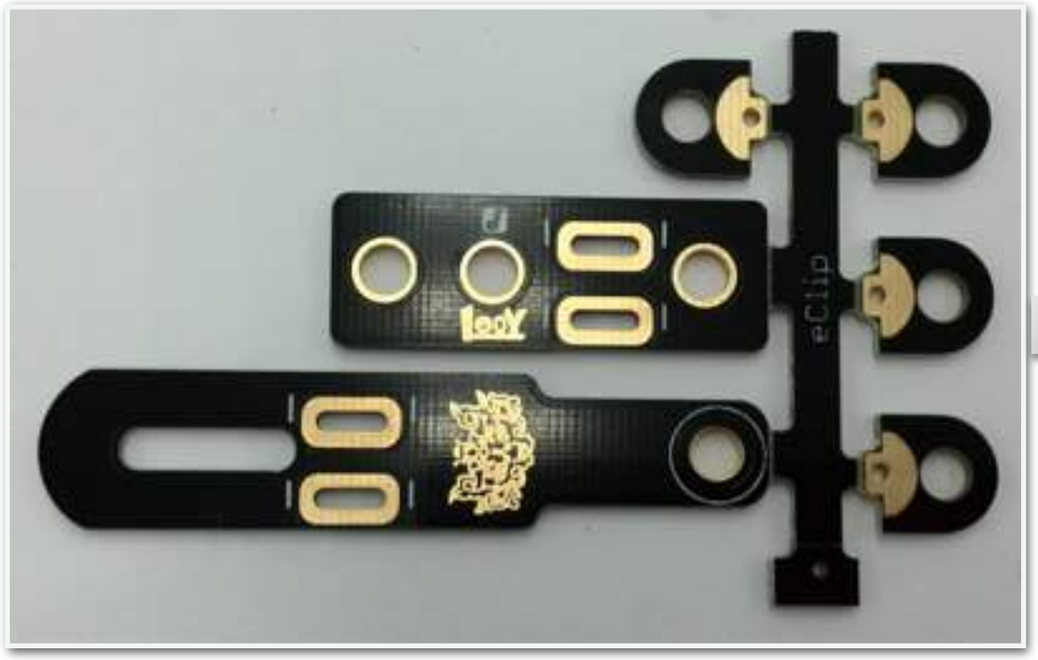
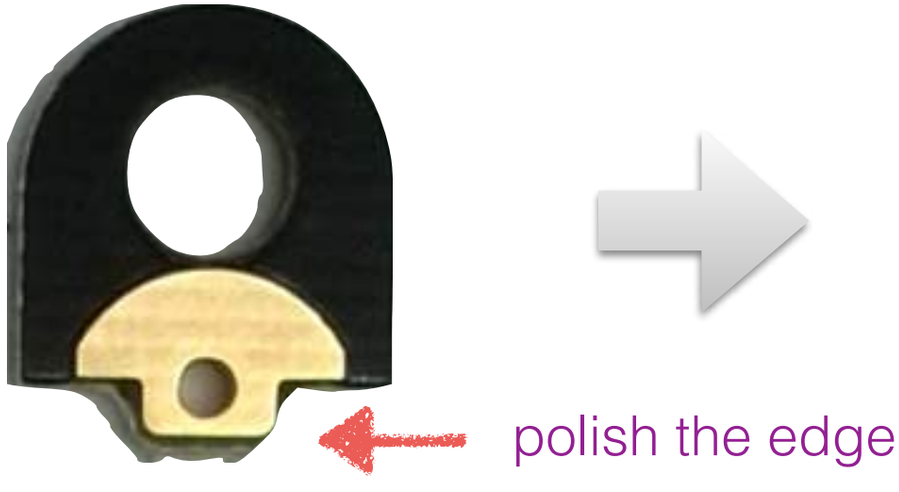
- Usage

Make the Base

- Snap the base PCB panel apart



- Polish the edge of pillar



Make the Base

- Solder Pillar

① Plug the pillars into the mounting holes.

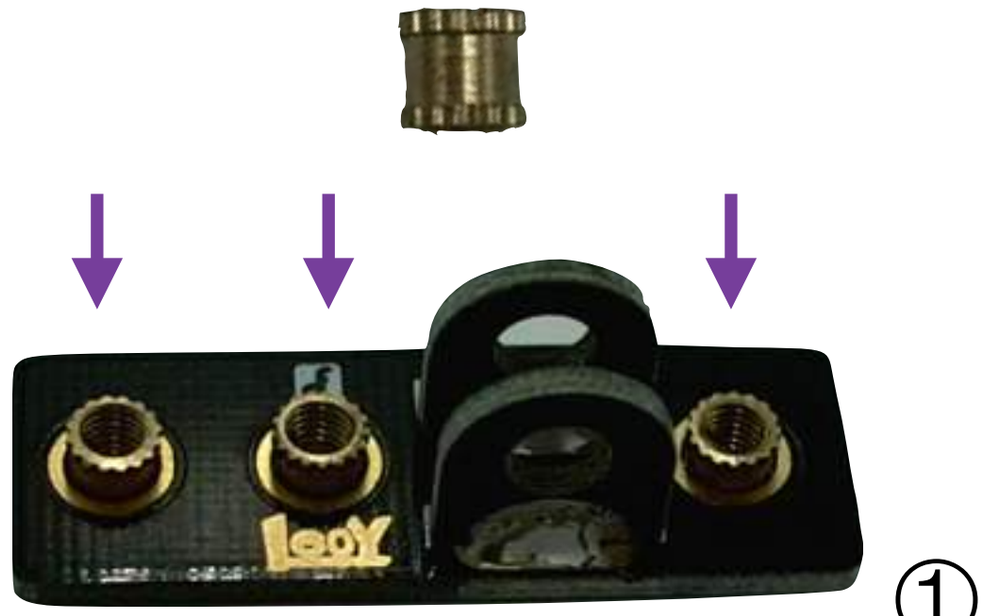
② Solder.

Make the Base

- Install cast insert

①Plug the cast insert into the mounting holes.

②Solder.



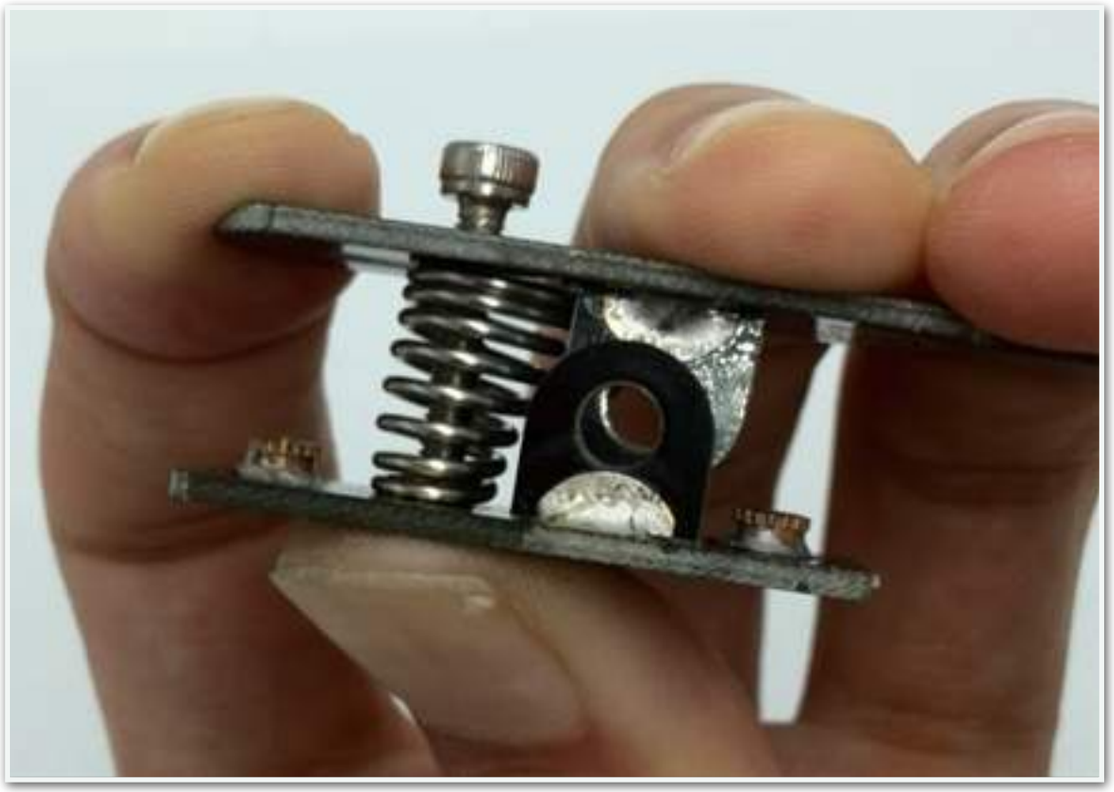
①

②

Make the Base

- Install coil spring

  Follow the photos, install the spring between the long and short board by screw-M3x18.



Make the Base

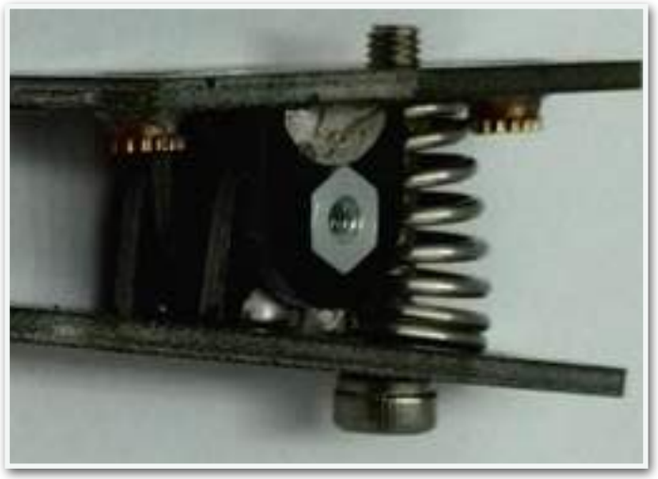
- Install the shaft

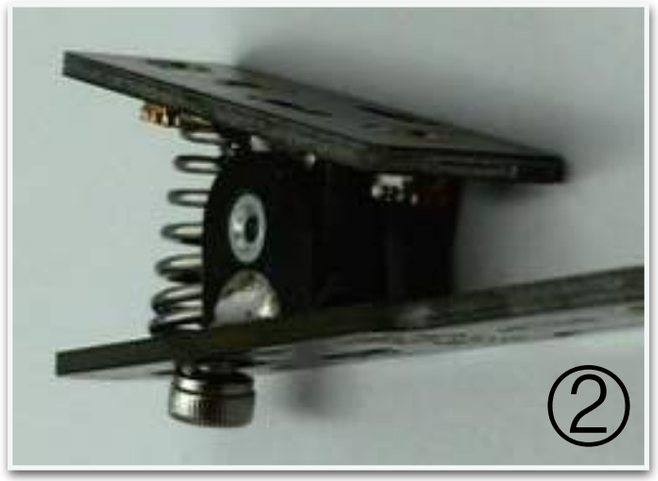
①Align the pillar's holes on long and short board.

②Leave internal thread stud-M2x10 inside holes.

③Fix the stud with a Screw-M2x5.

①





②

③

Make the Base

- Paste the adhesive semisphere-mat

Base Done. Congratulation!

- Introduction
- Make the Base
- Make the Function-Board
- Usage

Make Function-Board

- Snap the function-board PCB panel apart

2x4-2mm Function-Board

2x4-2.54mm Function-Board

Soldering auxiliary board

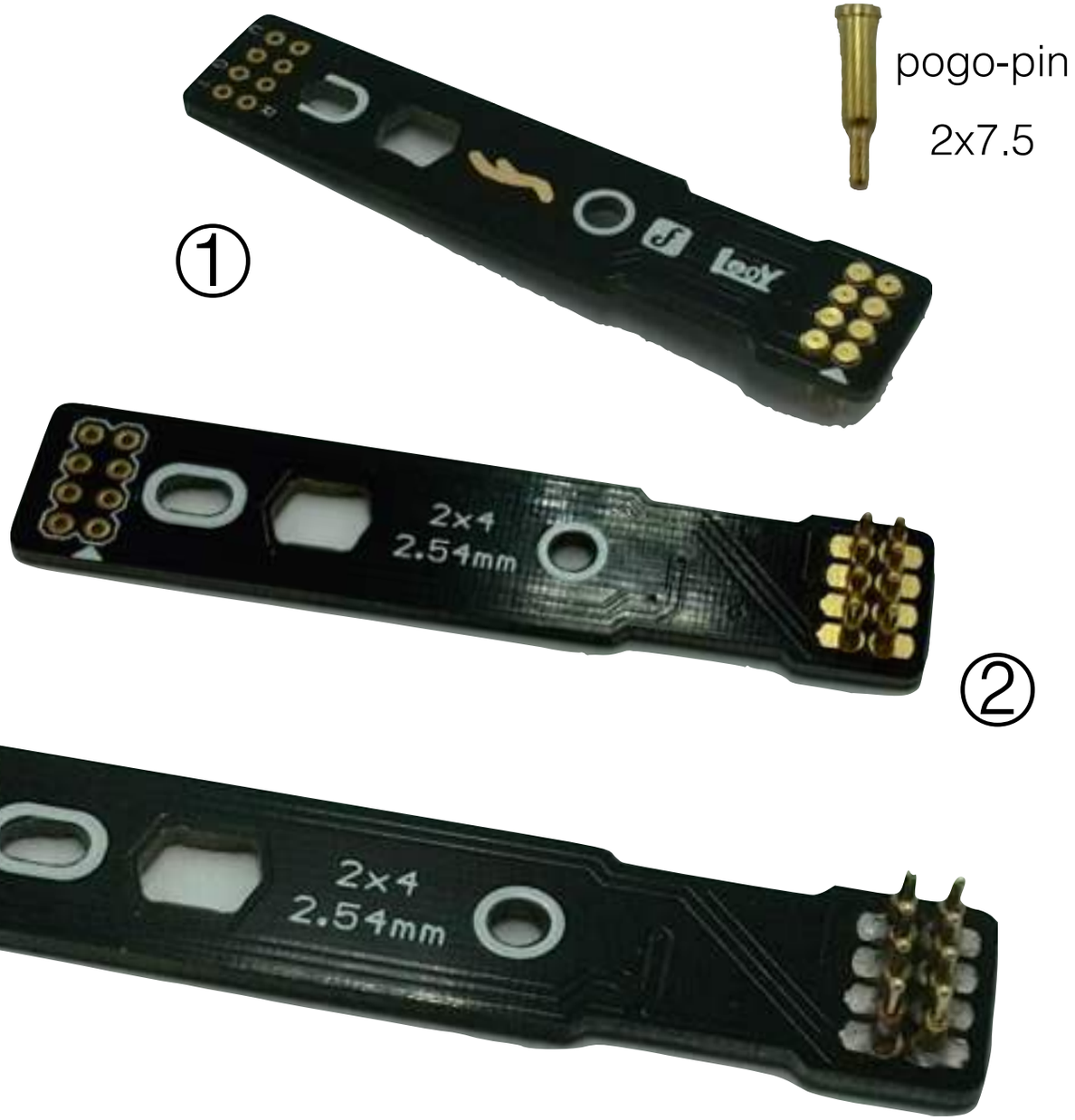
Make Function-Board 2.54mm

- **Solder the pogo-pin**

①Plug pogo-pins into pads.

②Turn over the board.(you can prevent the pogo-pins dropping down by using auxiliary board as a tray.)

③Solder the pogo-pins. Please press firmly on the board to ensure the pogo-pins is vertical with the board.

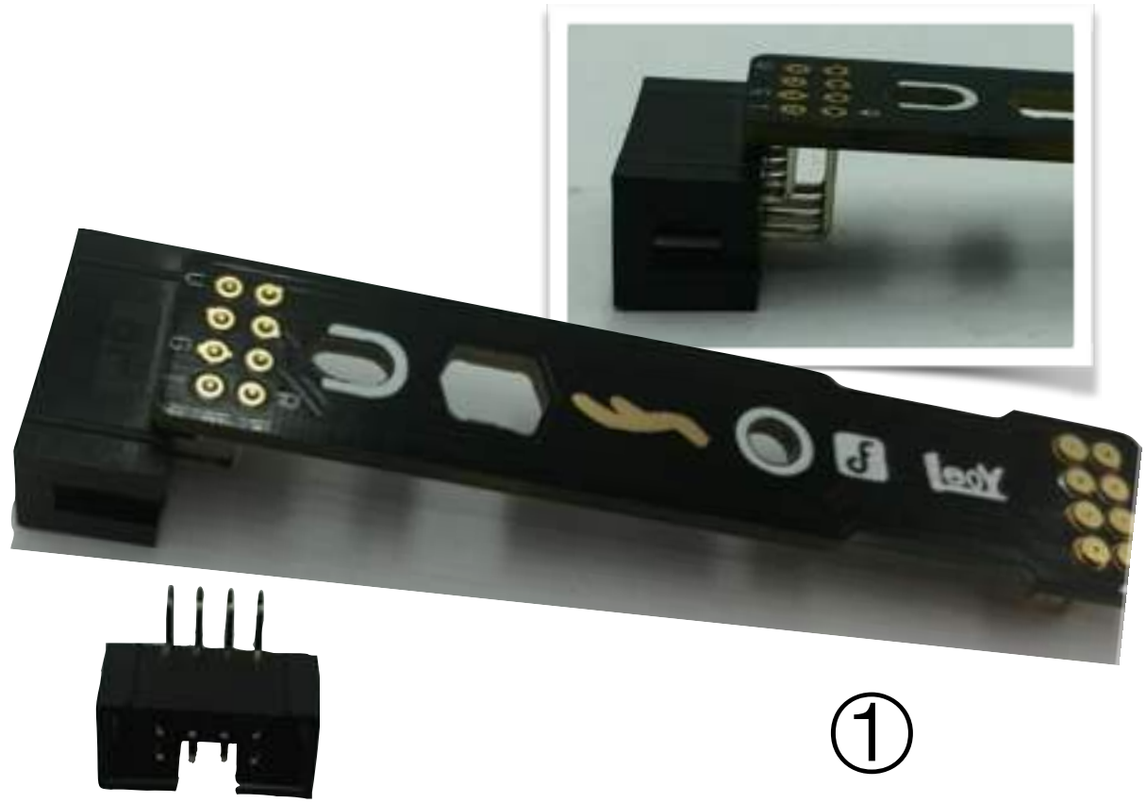


Make Function-Board 2.54mm

- **Solder the DC3 socket**

①Plug the socket on the back of the board and keep the pin slightly higher than the board to avoid prick the hand when using.

②Solder the pins.



①

②

Make Function-Board 2mm

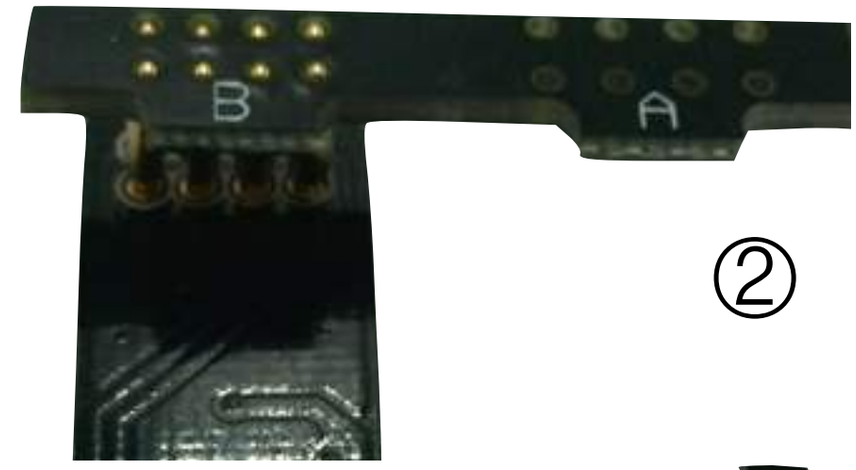
- **Solder the pogo-pin**

①Plug pogo-pins into pads.

②Push pogo-pins into the holes(marked by ‘B’) in the auxiliary board to ensure the pogo-pins is vertical with the function-board.

③Turn over the board.

④Solder the pins.



Make Function-Board 2mm

- Solder the DC3 socket

Same to the 2.54mm function-board.

Function-Board done. Congratulation!

- Introduction
- Make the Base
- Make the Function-Board
- Usage

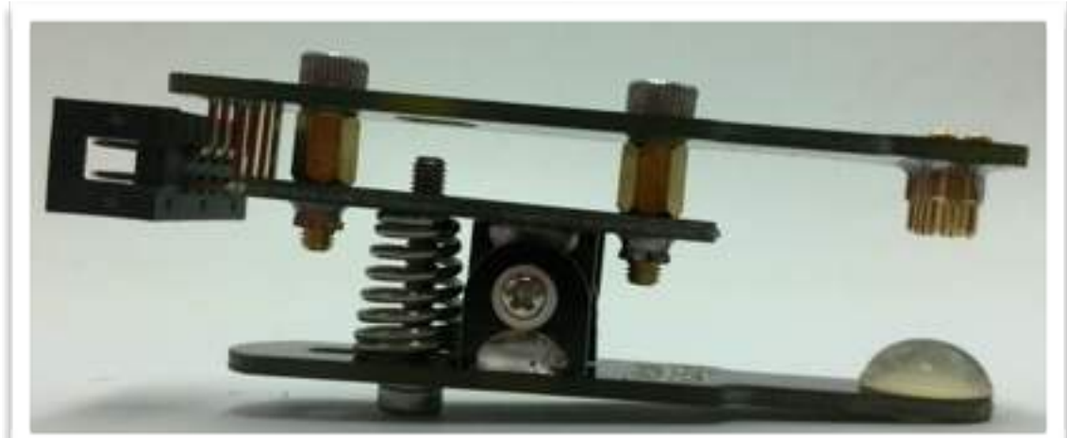
Usage

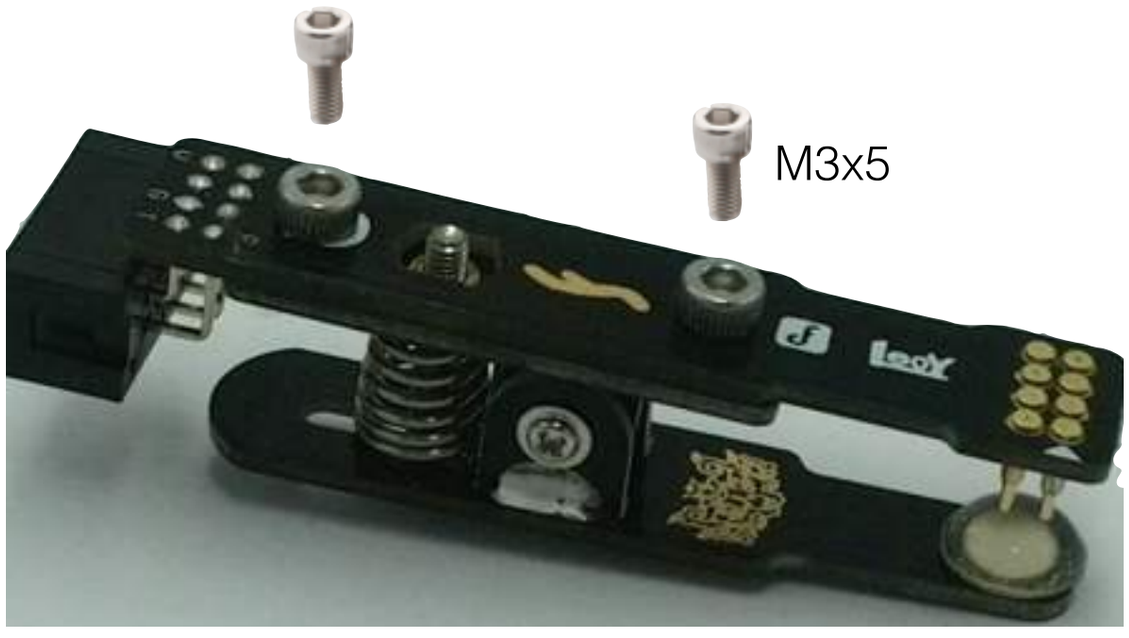
- Fix the function-board on the base

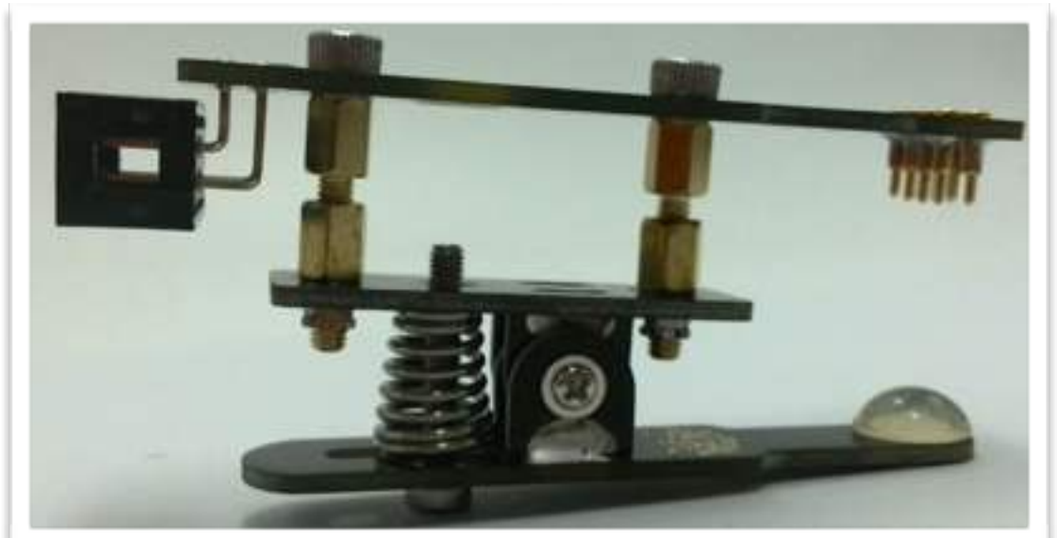
a.Select the appropriate function-board.

b.You could replace the copper standoffs according to your target size.

c.Fix the function-board on the base with screw-M3x5.



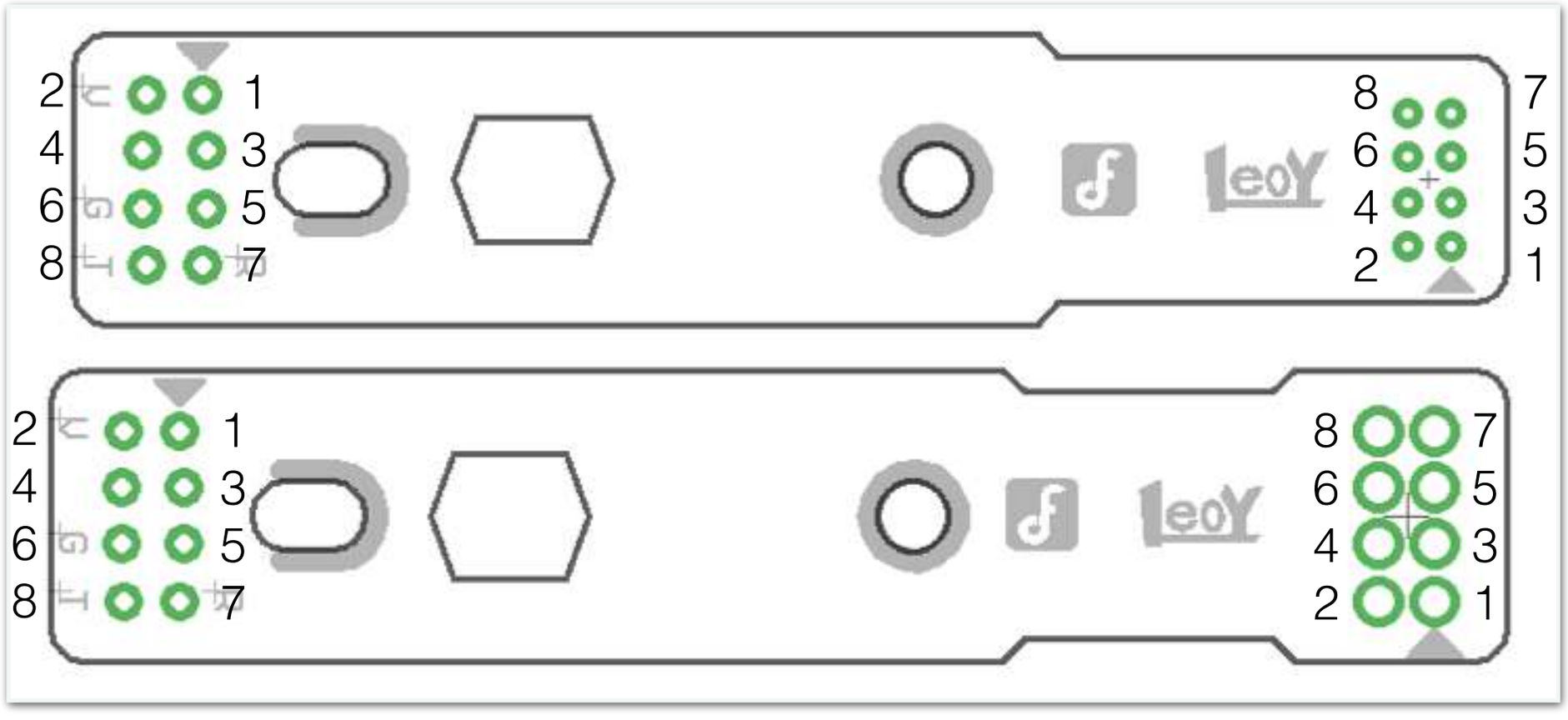




Usage

- Connect the cable

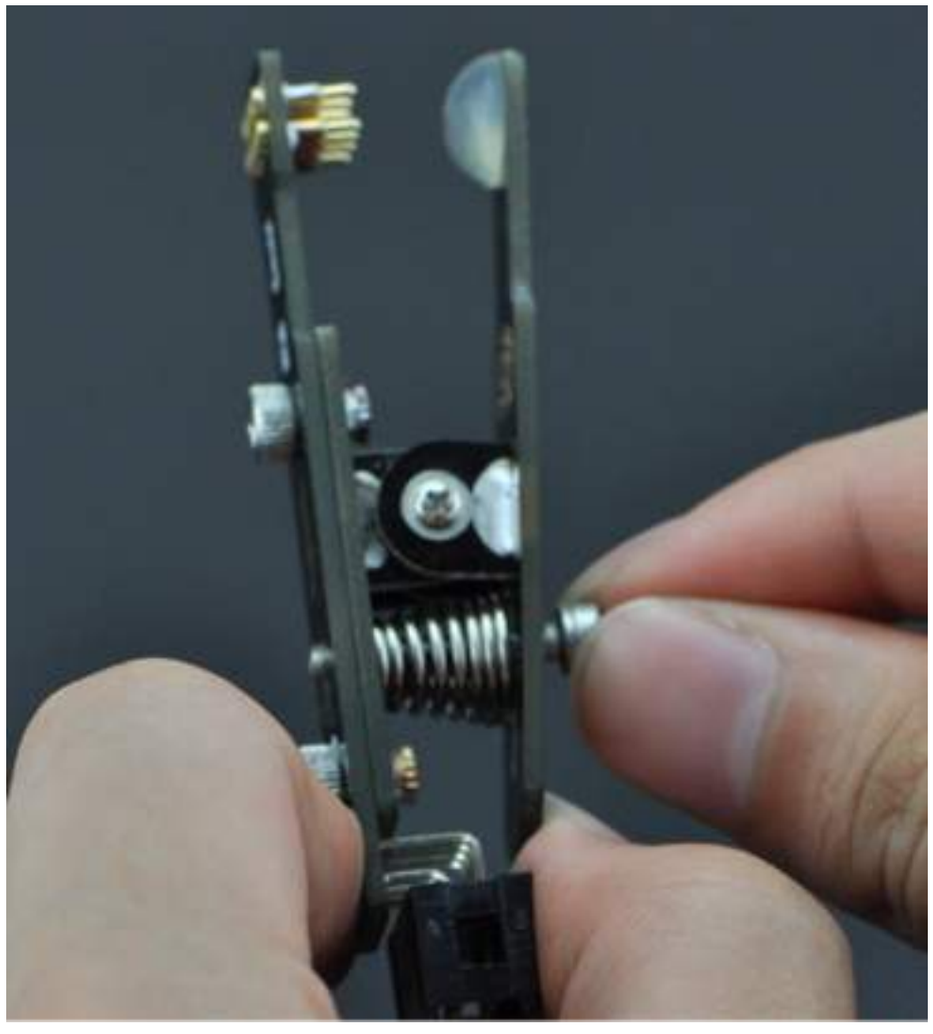
Pin Mapping:



Usage

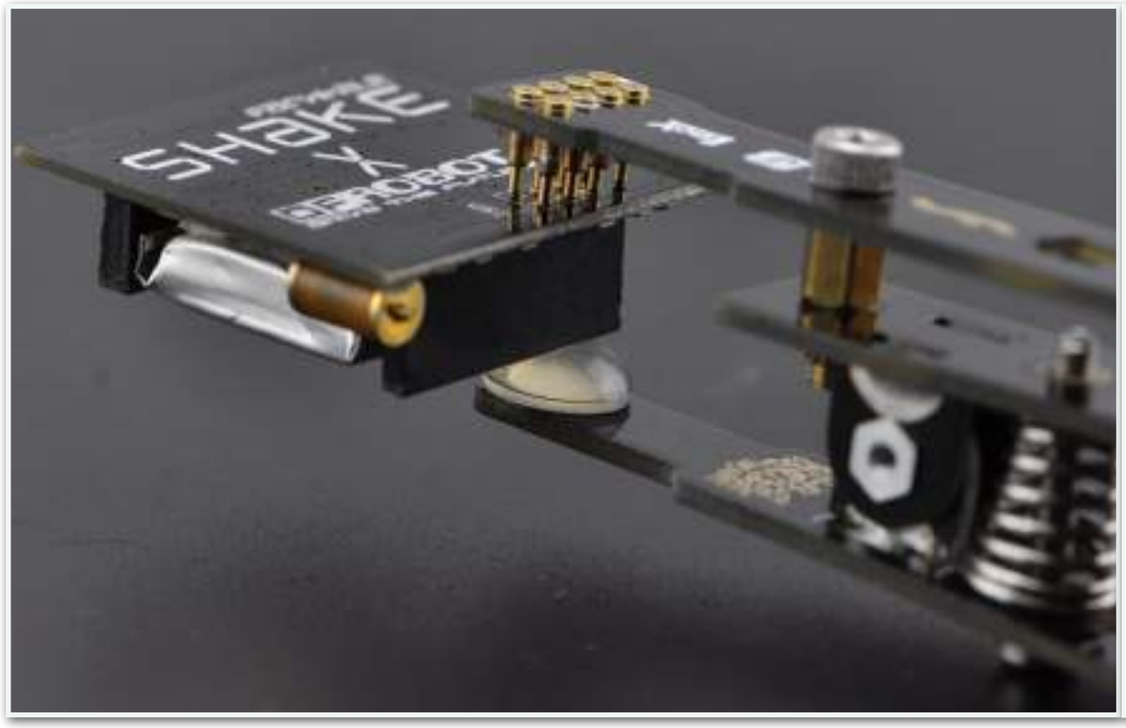
- Adjust clamping force of the eClip

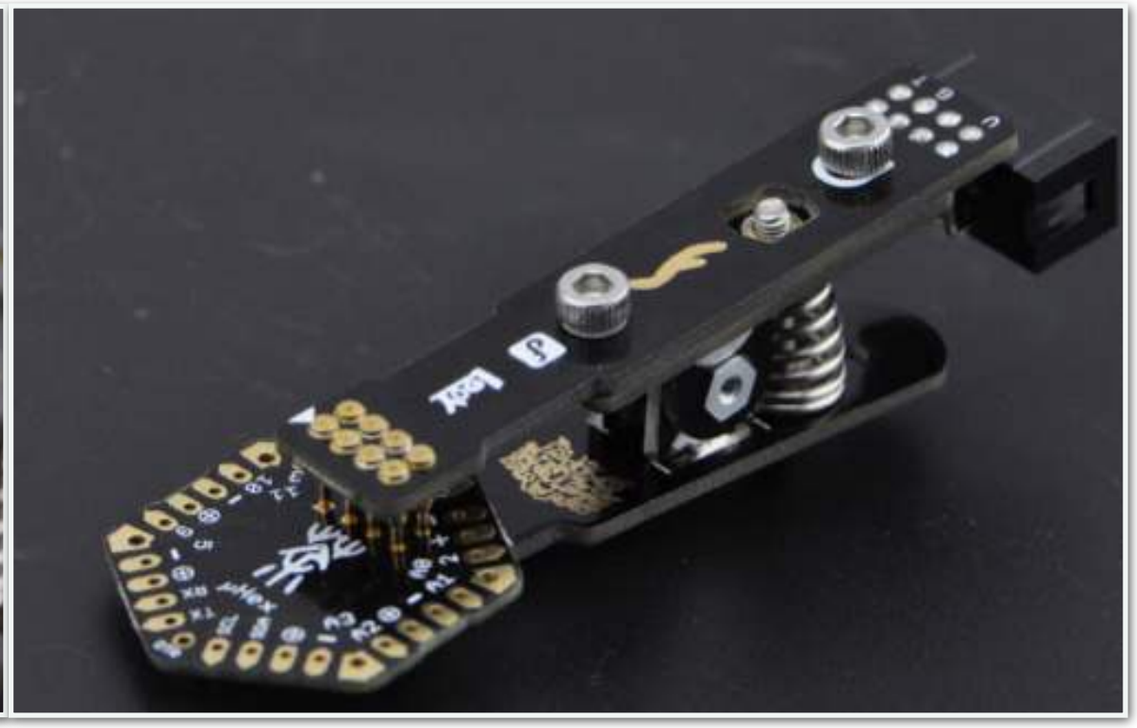
Rotate the screw-M3x18 as follow:



Usage

- Grip the eClip on the module





Thanks