

Electronic Dice DIY Kit

1.Introduction:

It is a touch-controlled electronic dice. The displayed numbers are randomly displayed after each press of the touch button.

2.Feature:

- 1>.Touch button control
- 2>.Electronic simulation dice
- 3>.DIY manual welding
- 4>.Simple and easy to operate

3.Parameter:

- 1>.Work Voltage:DC 9V
- 2>.Work Current:50mA
- 3>.Work Module:Touch Button Control
- 4>.Work Temperature:-40℃~85℃
- 5>.Work Humidity:0%~95%RH
- 6>.Size(Installed):40*40*11mm

4.Component listing:

NO.	Component Name	PCB Marker	Parameter	QTY
1	NE555	U1	SOP-8	1
2	CD4017	U2	SOP-16	1
3	0805 SMD Resistor	R1-R9	10Kohm(103)	9
4	0805 SMD Resistor	R10-R12	330ohm	3
5	0805 SMD Resistor	R13	10Mohm(106)	1
6	0805 SMD Resistor	R14	4.7Mohm(475)	1
7	0805 SMD Resistor	R15	3.3Mohm(335)	1
8	0805 SMD Resistor	R16	1Kohm(102)	1
9	0805 SMD Capacitor(Transparent)	C1	1uF	1
10	0805 SMD Capacitor(White)	C2	100nF	1
11	Yellow LED	D1-D7	3mm	7
12	Triode SOT-23	Q1-Q2	2T1	2
13	Triode SOT-23	Q3-Q5	J3	3
14	9V Battery Wire			1
15	PCB		40*40*1.6mm	1

Note:Users can complete the installation according to the PCB silk screen and component list.

6.Application:

- 1>.Training welding skills
- 2>.Student school
- 3>.DIY production
- 4>.Project Design
- 5>.Electronic competition
- 6>.Gift giving
- 7>.Crafts collection
- 8>.Home decoration
- 9>.Souvenir collection
- 10>.Graduation design
- 11>.Holiday gifts

7.Installation Tips:

- 1>.User needs to prepare the welding tool at first.
- 2>.Please be patient until the installation is complete.
- 3>.The package is DIY kit.It need finish install by user.
- 4>.The soldering iron can't touch the components for a long time(1.0 second), otherwise it will damage the components.
- 5>.Pay attention to the positive and negative of the components.
- 6>.Strictly prohibit short circuit.
- 7>.User must install the LED according to the specified rules.Otherwise some LED will not light.
- 8>.Install complex components preferentially.
- 9>.Make sure all components are in right direction and right place.
- 10>.Check that all of the LED can be illuminated.
- 11>.It is strongly recommended to read the installation manual before starting installation!!!

8.Installation Steps(Please be patient install!!!):

- 1>.Step 1: Install 1pcs CD4017 SOP-16 at U2.There is a dot on one corner of the IC and there is a white dot on PCB where the IC can place on.These two marks are corresponding to each other and are used to specify the installation direction of the IC.
- 2>.Step 2: Install 1pcs NE555 SOP-8 at U1 as the same method.
- 3>.Step 3: Install 3pcs J3 Triode SOT-23 at Q3-Q5.
- 4>.Step 4: Install 2pcs 2T1 Triode SOT-23 at Q1-Q2.
- 5>.Step 5: Install 9pcs 10Kohm(103) 0805 SMD Resistor at R1-R9.
- 6>.Step 6: Install 3pcs 330ohm 0805 SMD Resistor at R10-R12.
- 7>.Step 7: Install 1pcs 10Mohm(106) 0805 SMD Resistor at R13.
- 8>.Step 8: Install 1pcs 4.7Mohm(475) 0805 SMD Resistor at R14.
- 9>.Step 9: Install 1pcs 3.3Mohm(335) 0805 SMD Resistor at R15.
- 10>.Step 10: Install 1pcs 1Kohm(102) 0805 SMD Resistor at R16.
- 11>.Step 11: Install 1pcs 1uF 0805 SMD Capacitor which in the transparent shell

at C1.

12>.Step 12: Install 1pcs 100nF 0805 SMD Capacitor which in the white shell at C2.

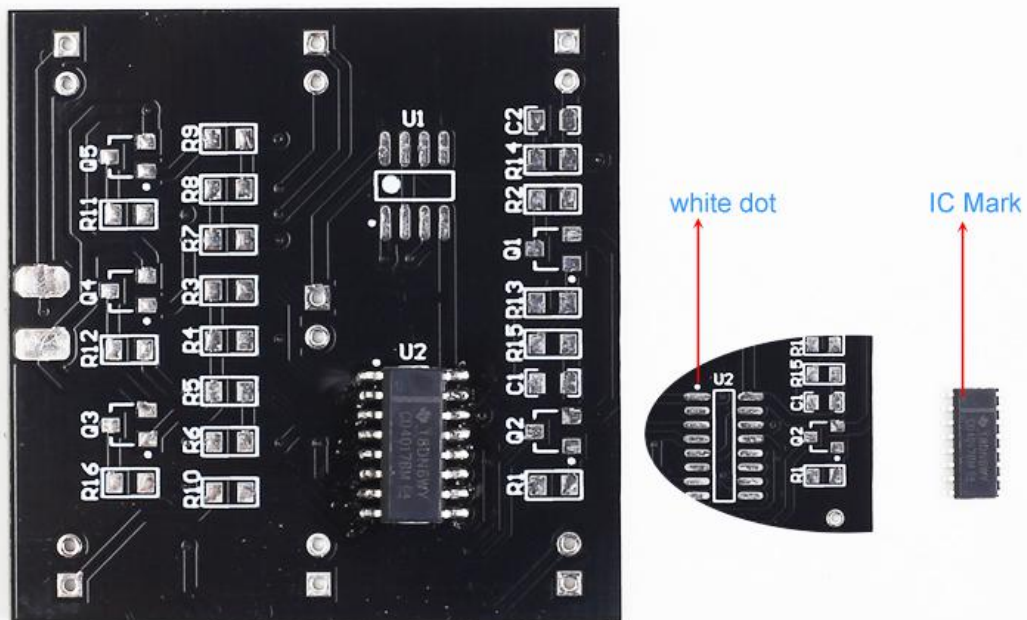
13>.Step 13: Install 7pcs 3mm Yellow LED at D1-D7.

14>.Step 14: Install 9V battery socket.

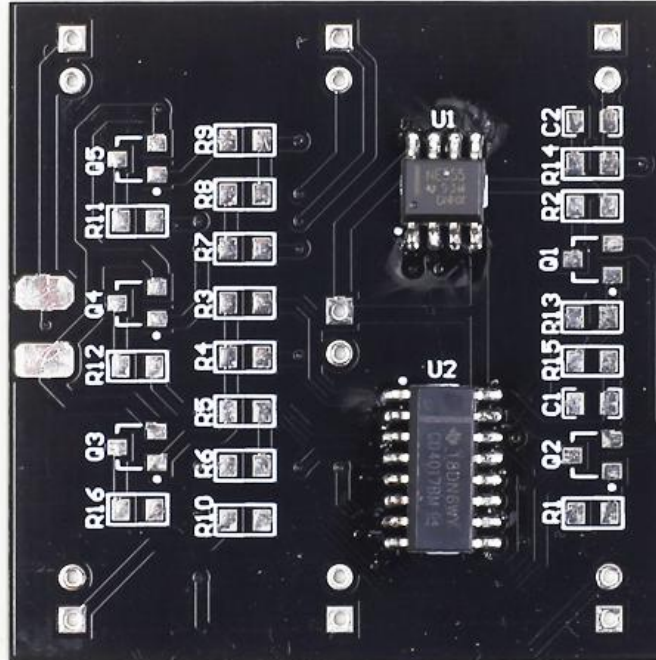
15>.Step 15: Connect to power supply and enjoy the LED flashing effect. Press touch button to change display effect.

9.Install shown steps:

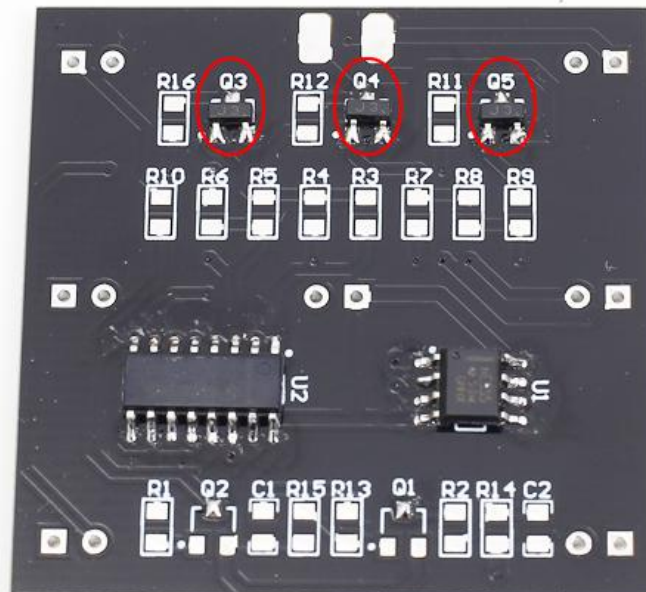
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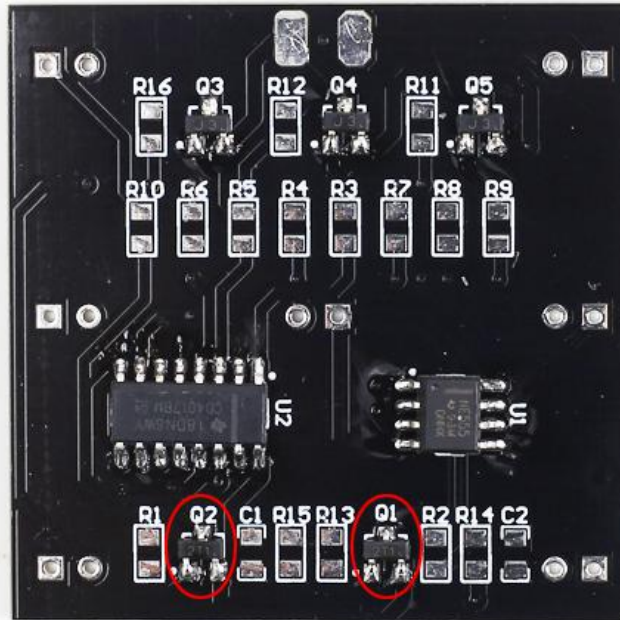
Step 2: Install 1pcs NE555 SOP-8 at U1 as the same method.



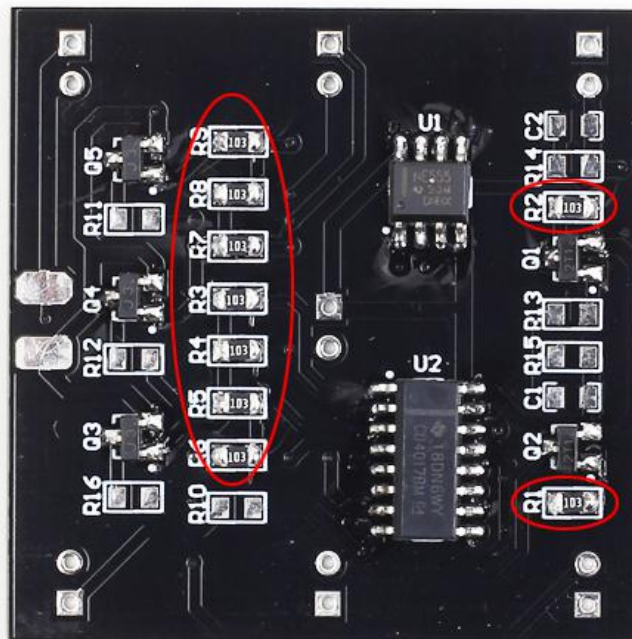
Step 3: Install 3pcs J3 Triode SOT-23 at Q3-Q5.



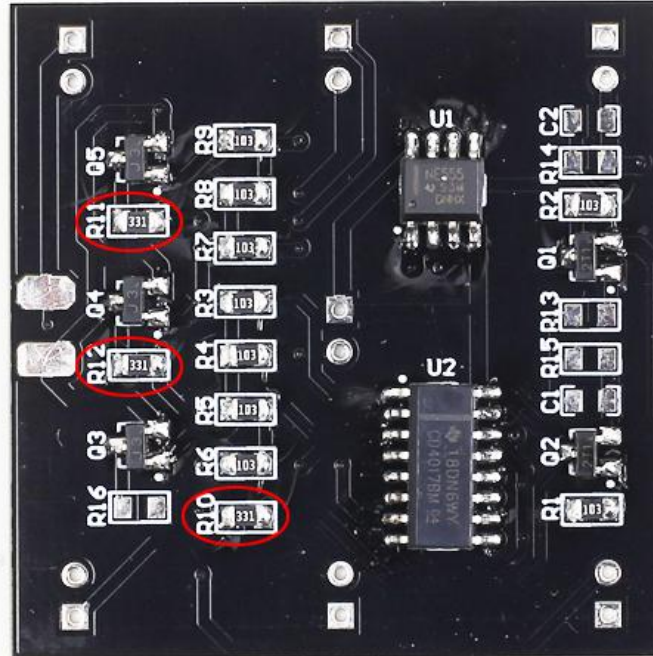
Step 4: Install 2pcs 2T1 Triode SOT-23 at Q1-Q2.



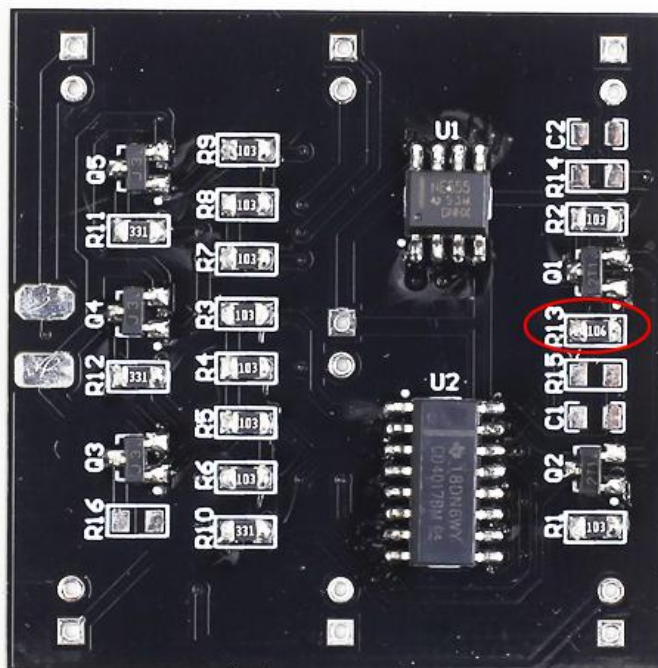
Step 5: Install 9pcs 10Kohm(103) 0805 SMD Resistor at R1-R9.



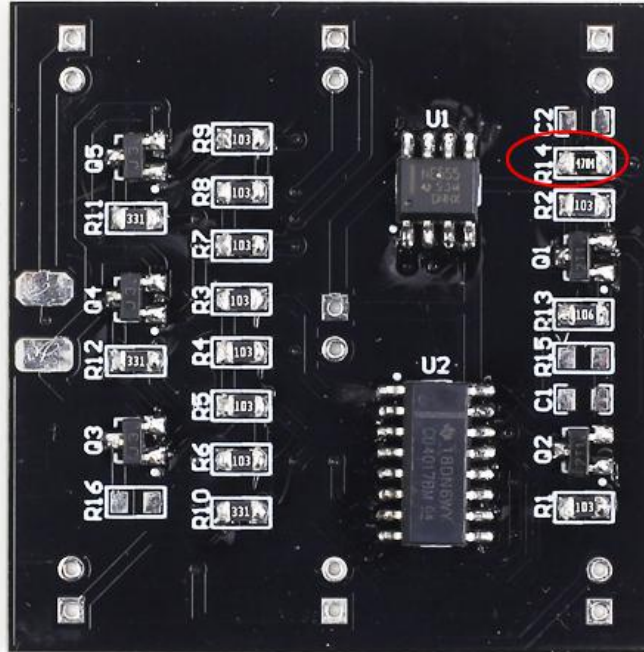
Step 6: Install 3pcs 330ohm 0805 SMD Resistor at R10-R12.



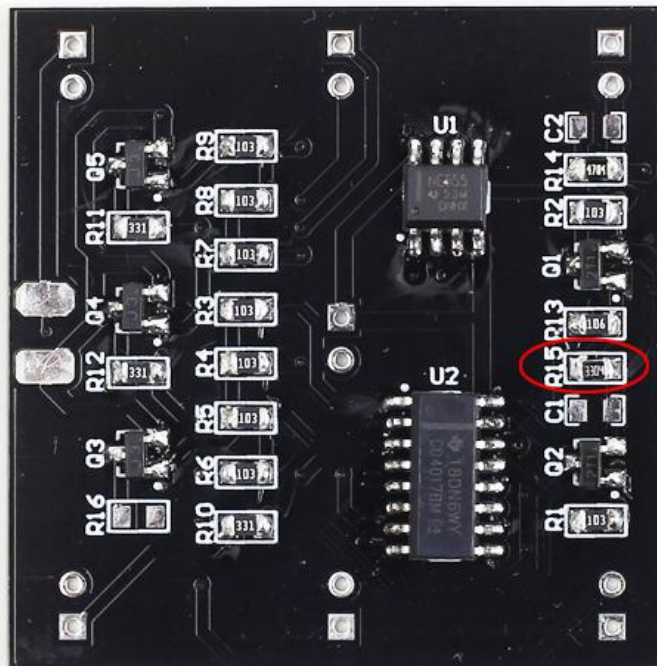
Step 7: Install 1pcs 10Mohm(106) 0805 SMD Resistor at R13.



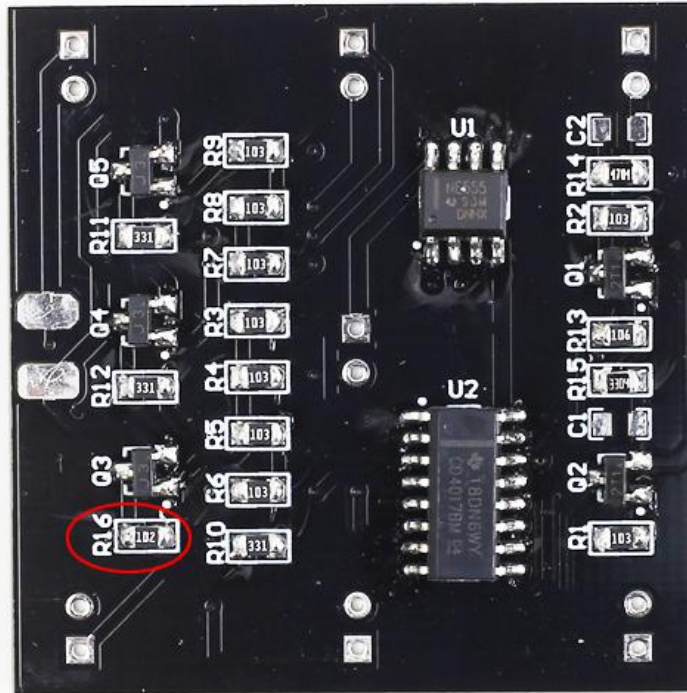
Step 8: Install 1pcs 4.7Mohm(475) 0805 SMD Resistor at R14.



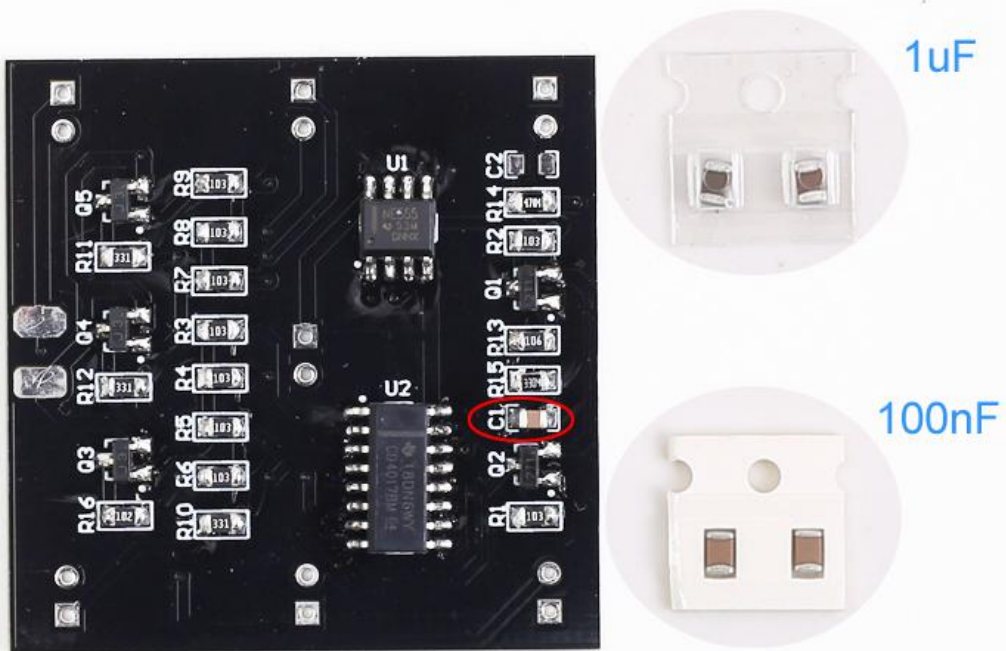
Step 9: Install 1pcs 3.3Mohm(335) 0805 SMD Resistor at R15.



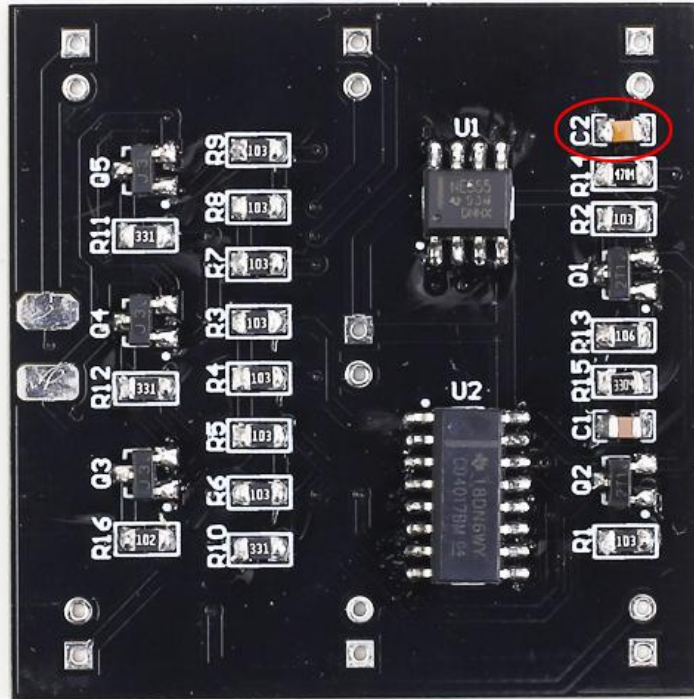
Step 10: Install 1pcs 1Kohm(102) 0805 SMD Resistor at R16.



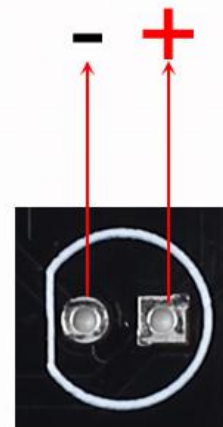
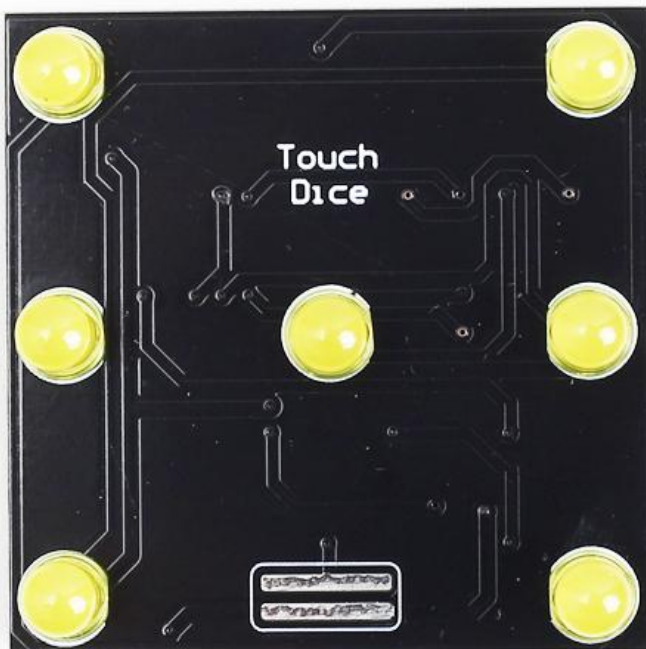
Step 11: Install 1pcs 1uF 0805 SMD Capacitor which in the transparent shell at C1.



Step 12: Install 1pcs 100nF 0805 SMD Capacitor which in the white shell at C2.



Step 13: Install 7pcs 3mm Yellow LED at D1-D7.



Step 14: Install 9V battery socket.



Step 15: Connect to power supply and enjoy the LED flashing effect. Press touch button to change display effect.