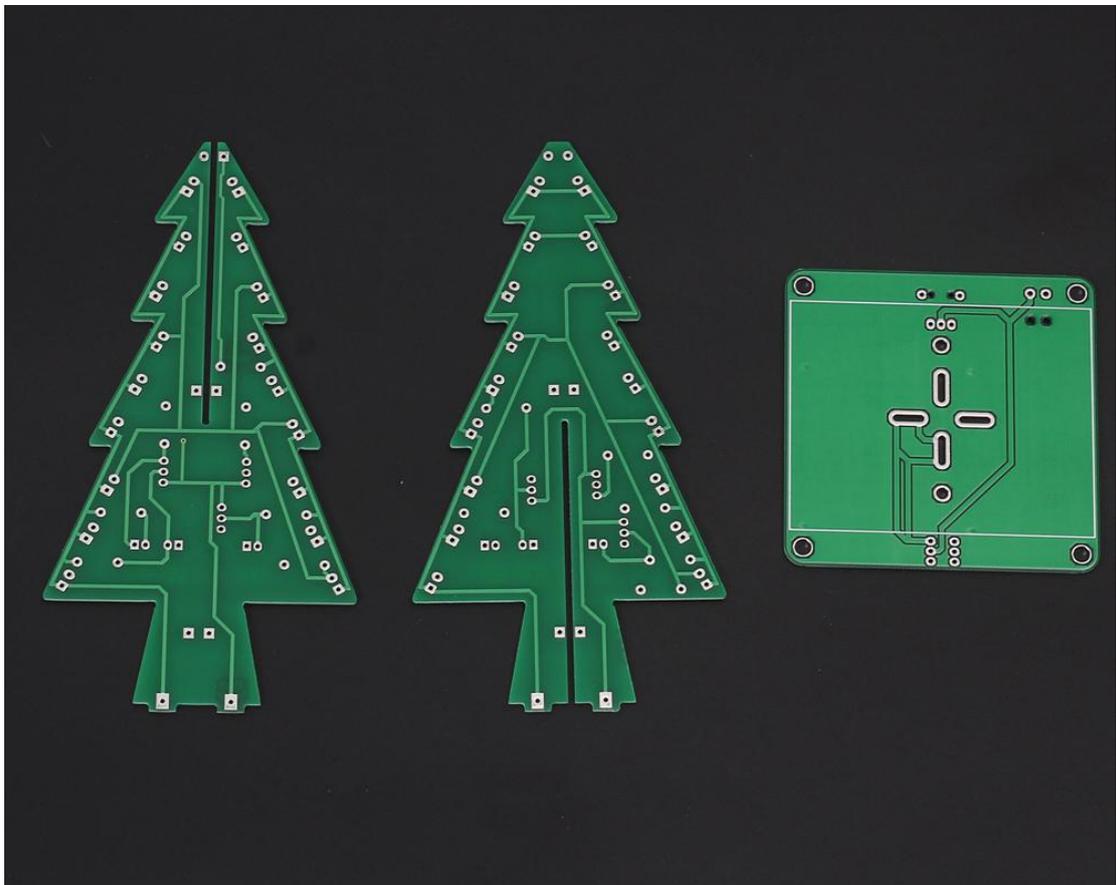


# Flash Christmas Tree DIY Kit

## 1. Introduction

CTR-30 flash Christmas tree kit consists of three circuit board, allows 36 LED flash alternately, showing a Christmas tree in the space of three-dimensional profile (the night environment has better viewing).

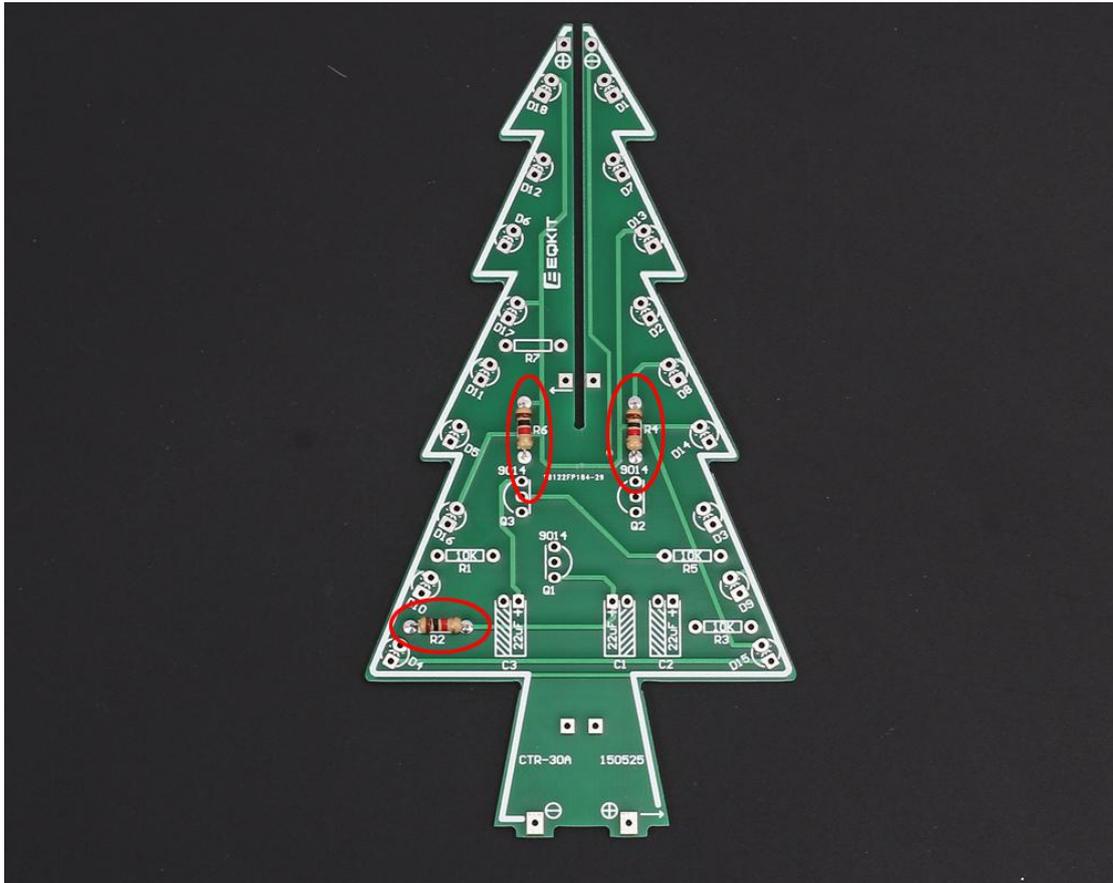
## 6. Installation Steps



1>. Install CTR-30A



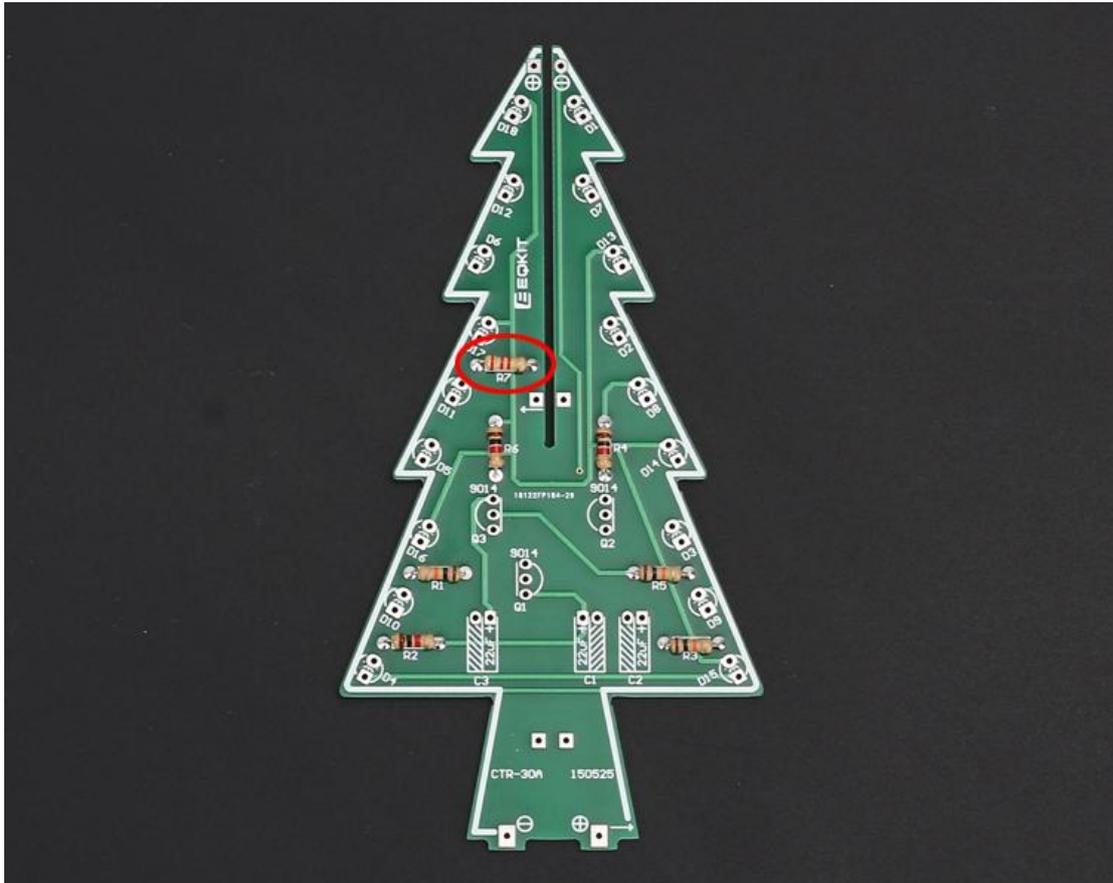
Step 1: Install 3pcs 1K Metal Film Resistor on R2,R4,R6



Step 2: Install 3pcs 10K Metal Film Resistor on R1,R3,R5



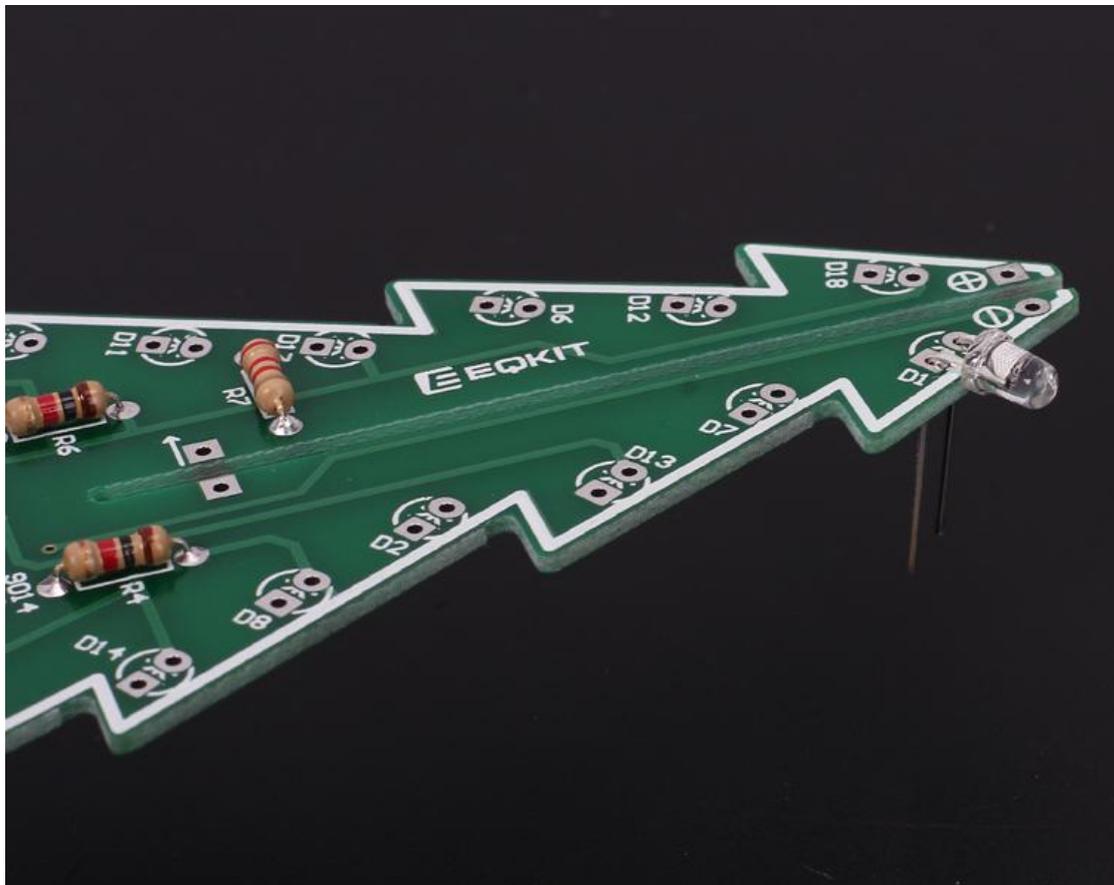
Step 3: Install 1pcs 2.2K Metal Film Resistor on R7

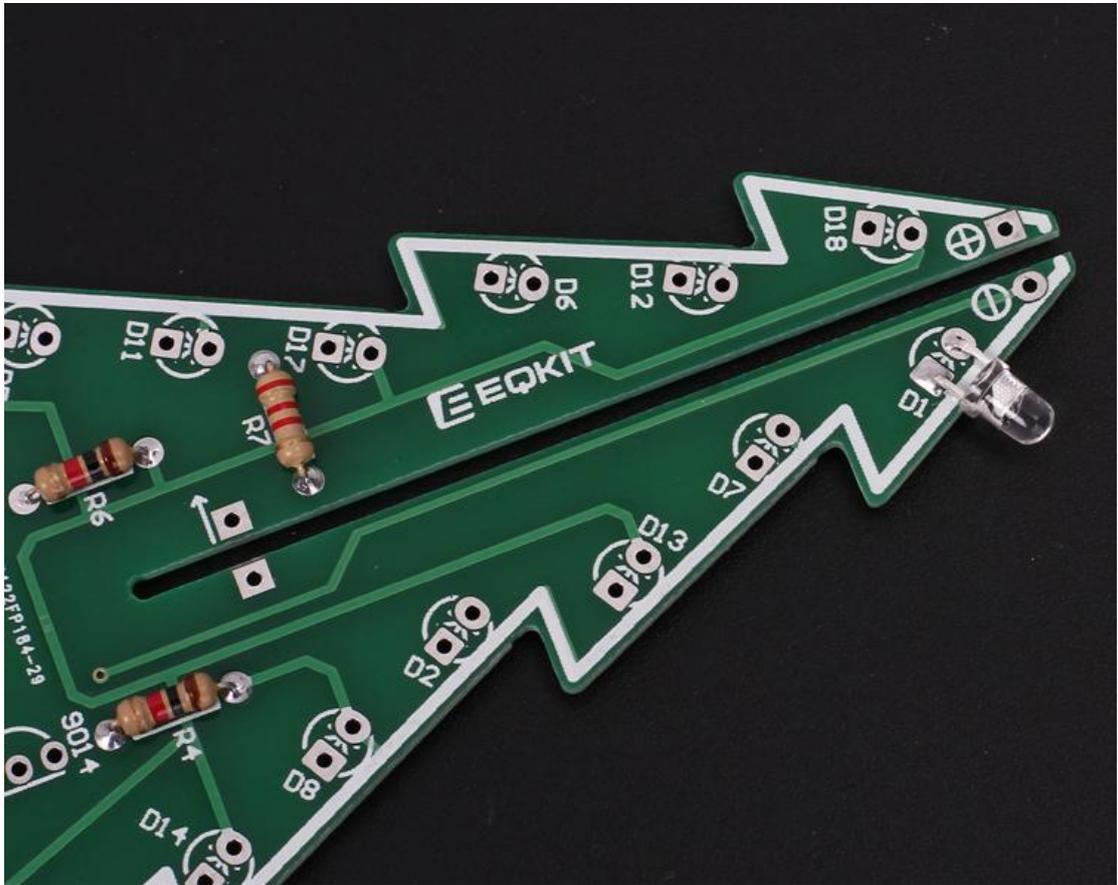


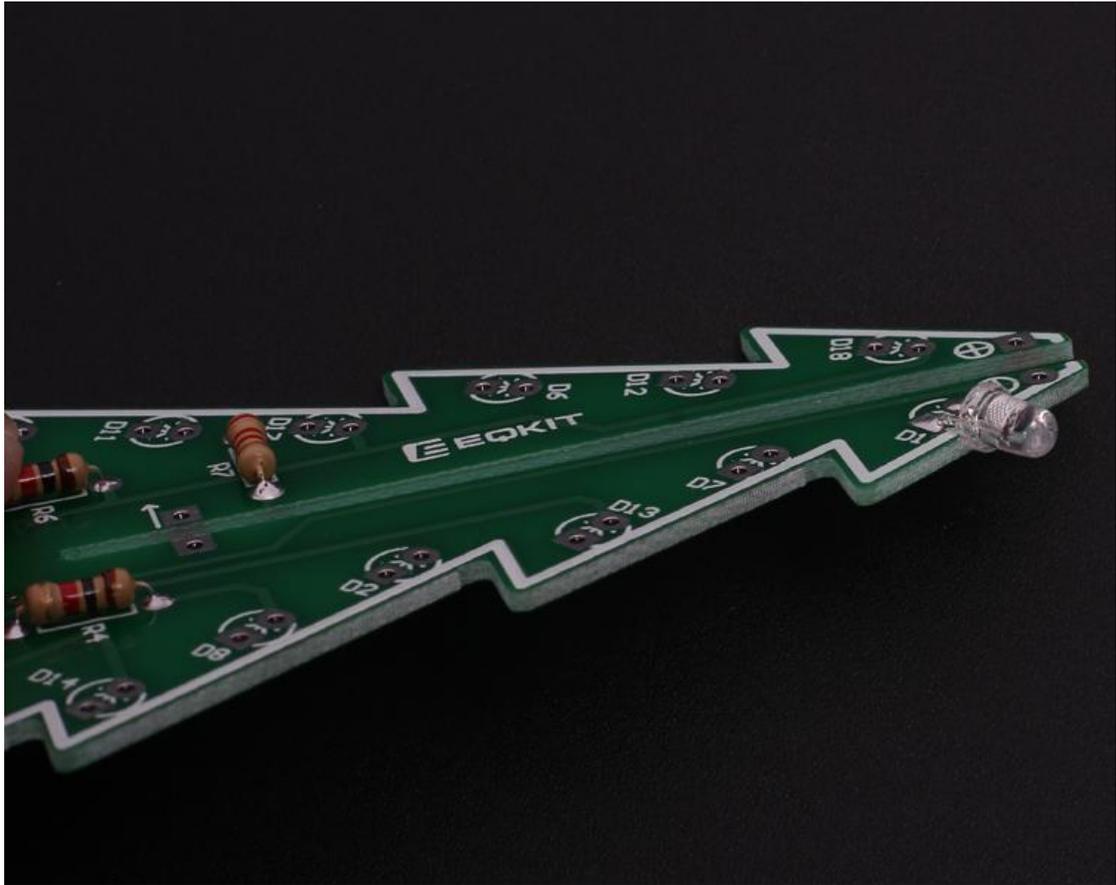
Step 4: Install 18pcs LED.

Tips:

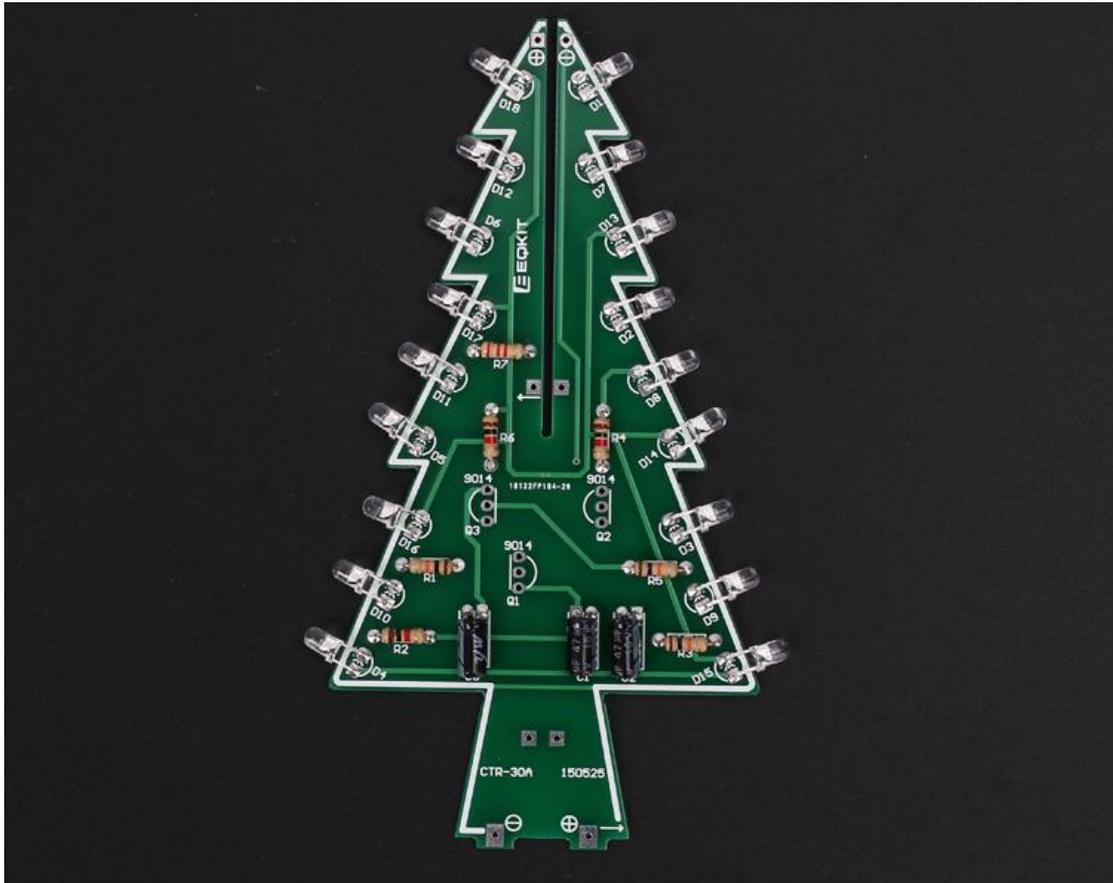
- A. Note the direction of the LED
- B. Control distance between PCB edge and LED head(Two ways).
  - 1). User can bend the LED pin at first after determining the distance and then insert LED to PCB through hole;
  - 2). Insert LED to PCB through hole at first. Then determine the distance. Bend the LED pin at last.







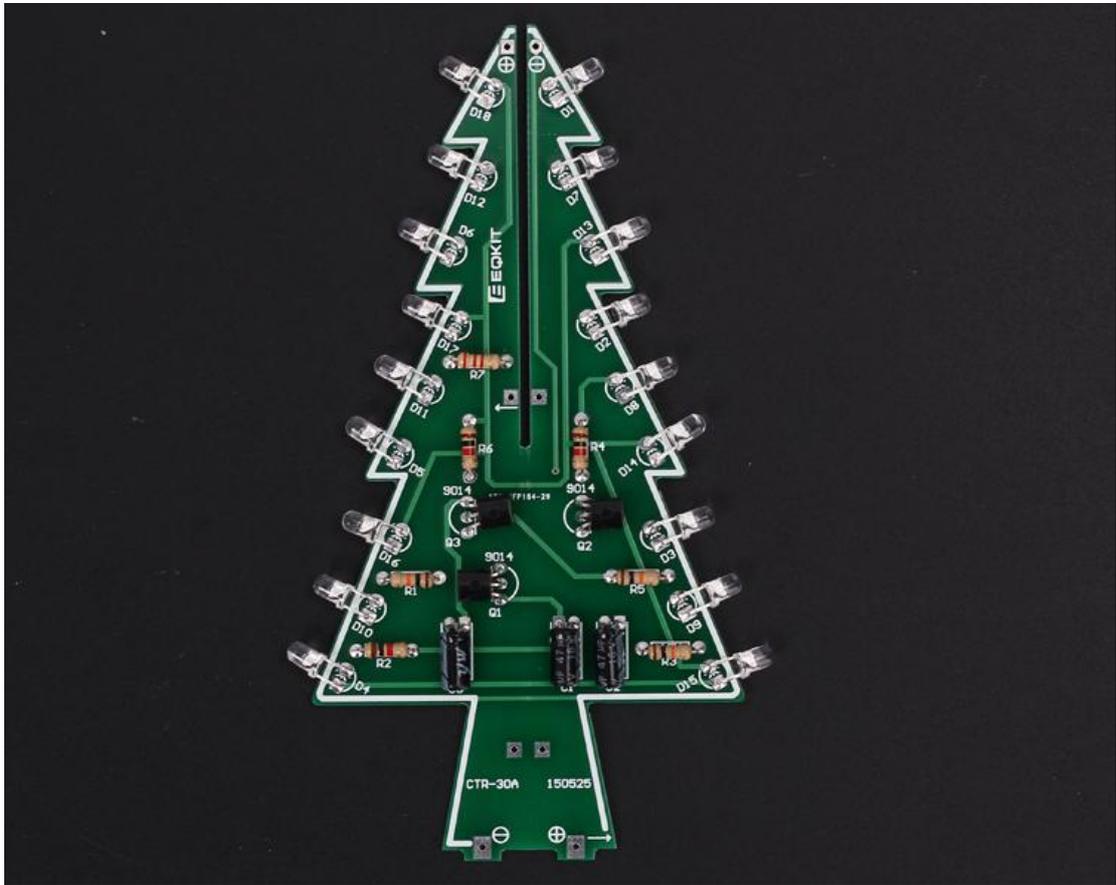
### Step 5: Install 3pcs 47uF 16V Electrolytic Capacitor



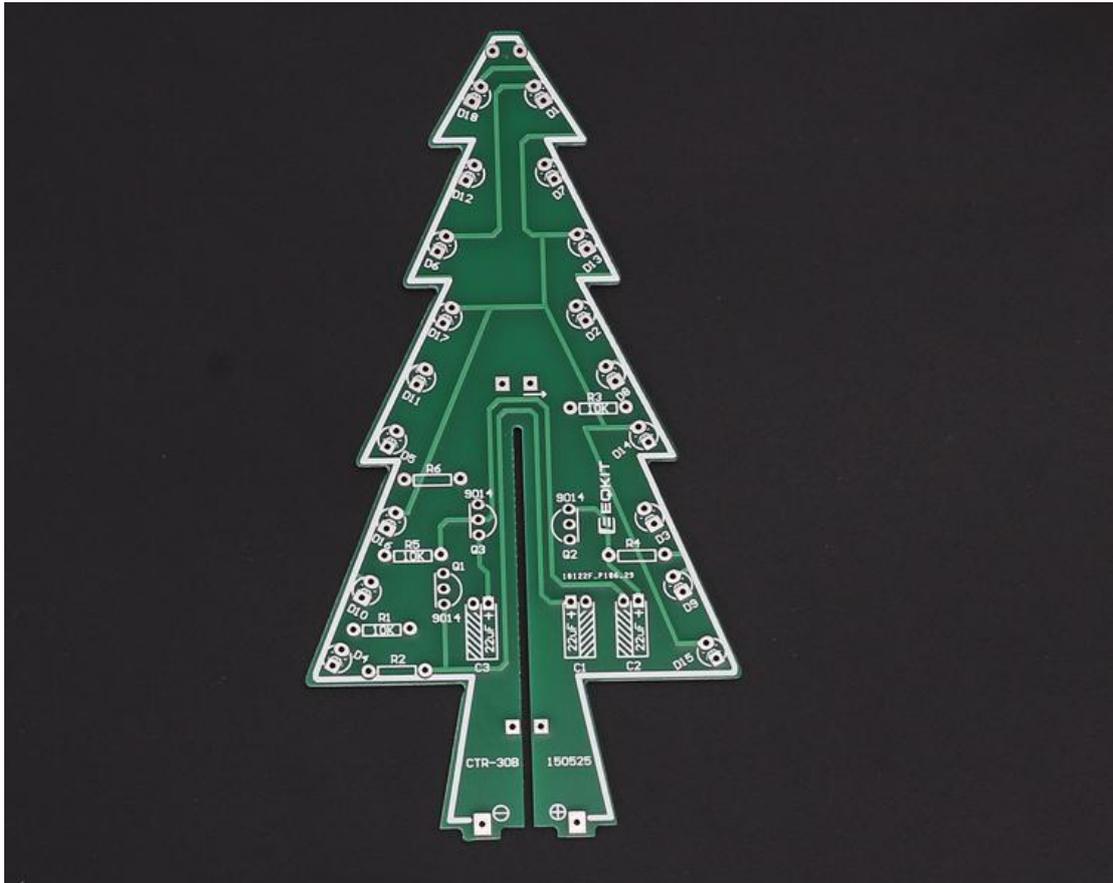
### Step 6: Install 3pcs TO-92 S9014 Transistor

Tips: It is better to bend S9014's pin so that 2pcs PCB CTR-30A and CTR-30B can better splicing.

OK, CTR-30A has been installed completed.



2>. Install CTR-30B



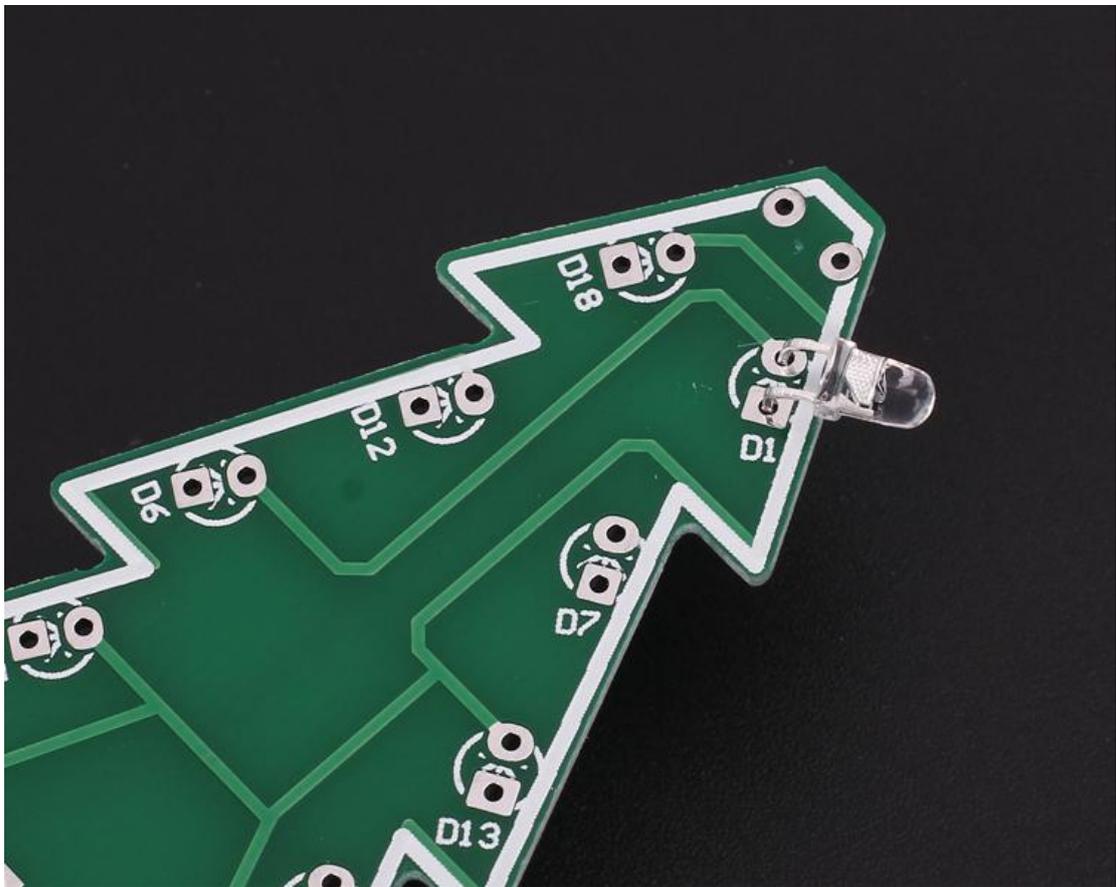
Step 7: Install 3pcs 1K Metal Film Resistor on R2,R4,R6

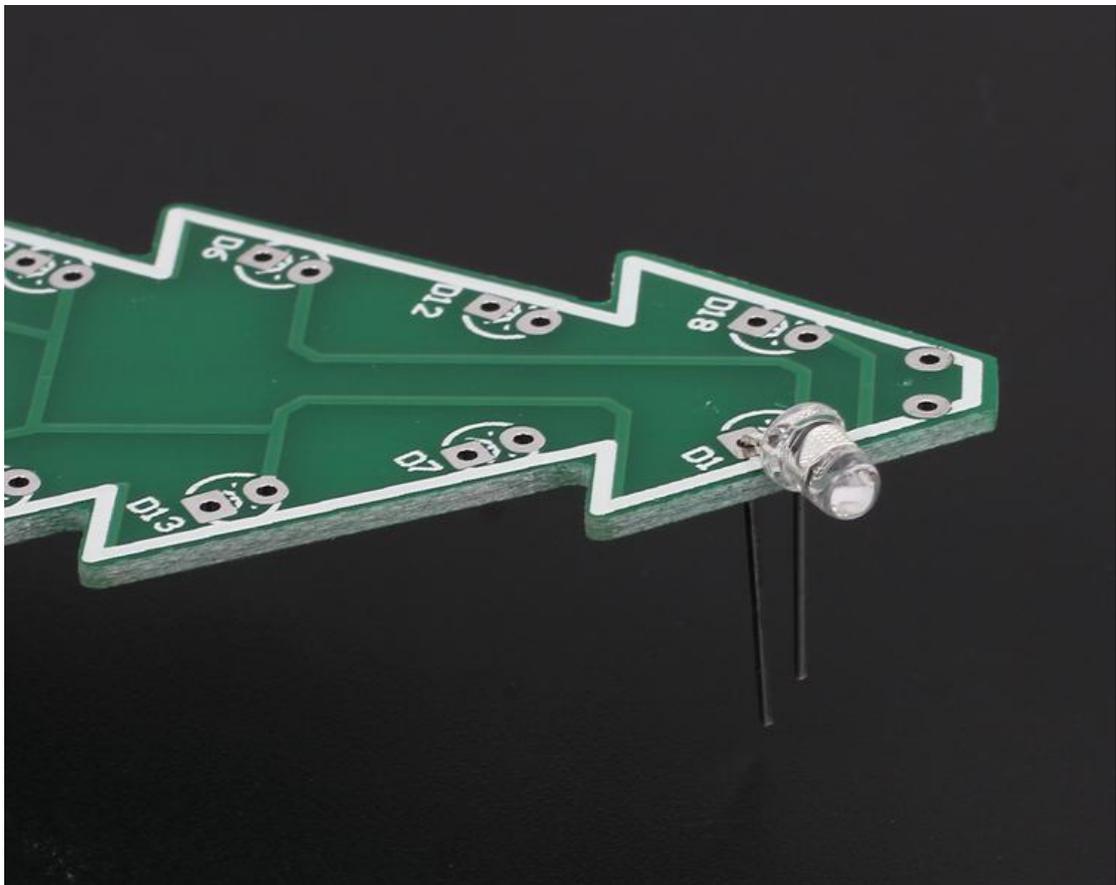
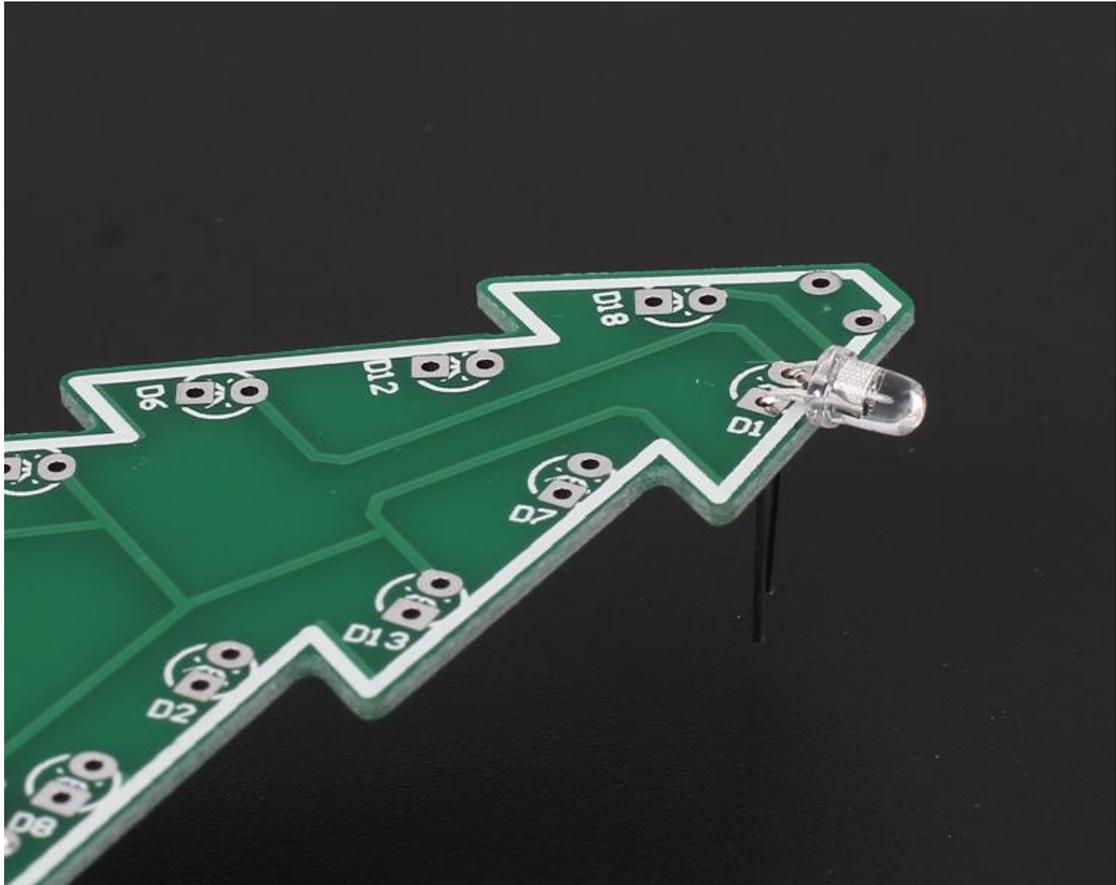


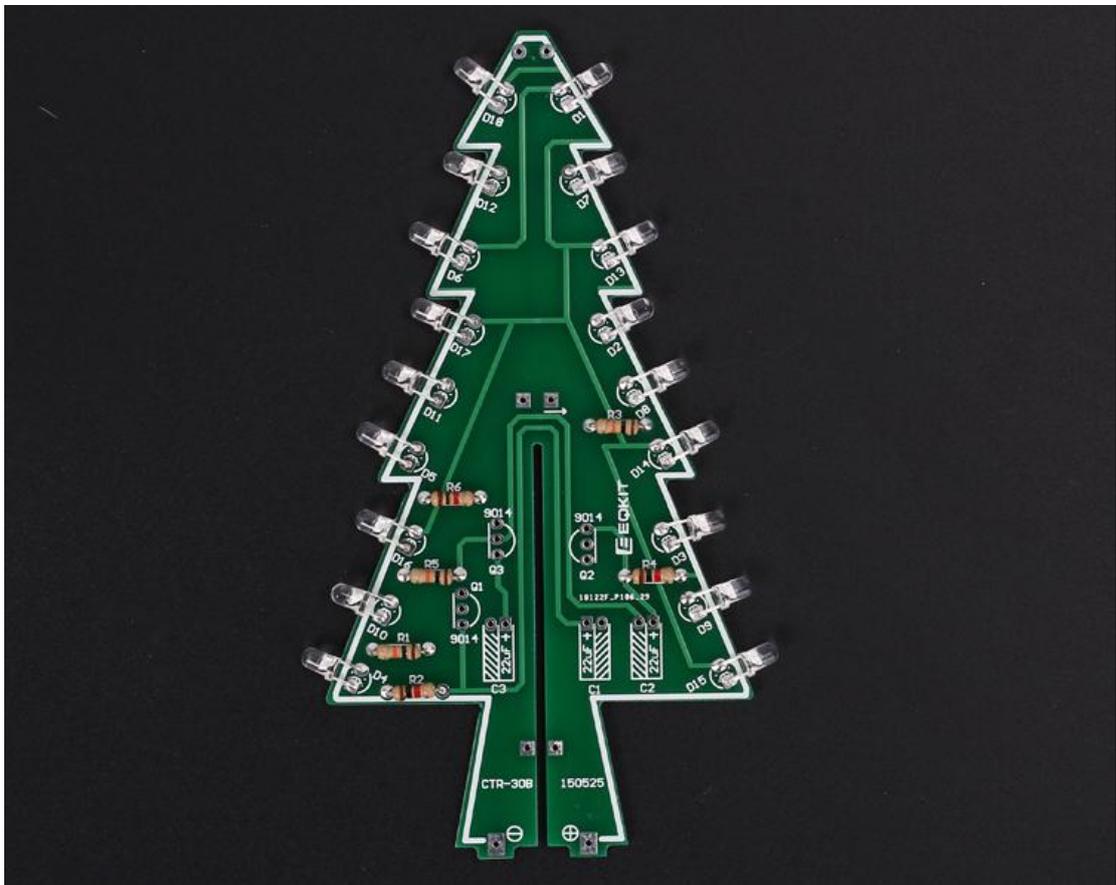
Step 8: Install 3pcs 10K Metal Film Resistor on R1,R3,R5



Step 9: Install 18pcs LED.







Step 10: Install 3pcs 47uF 16V Electrolytic Capacitor



Step 11: Install 3pcs TO-92 S9014 Transistor

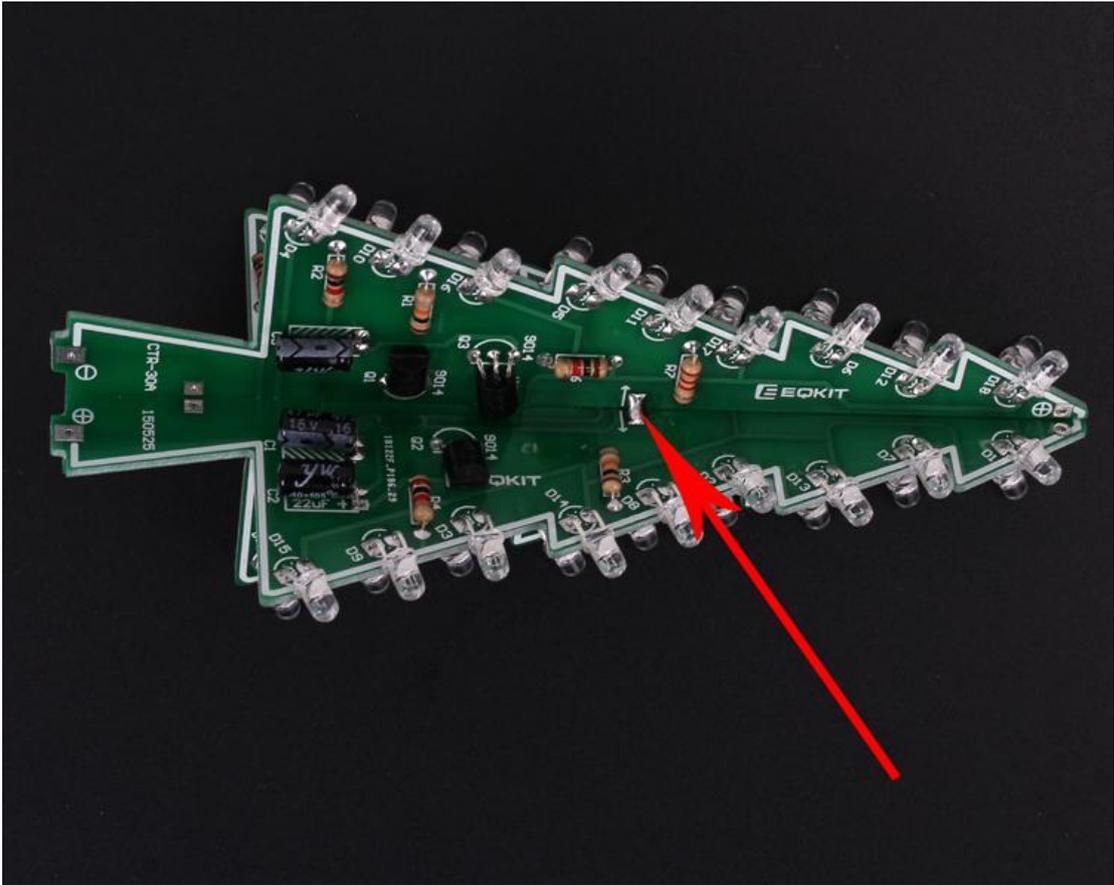


Step 12: Connect 5V to CTR-30A and CTR-30B. Preliminary welding success if LEDs are blinking automatically

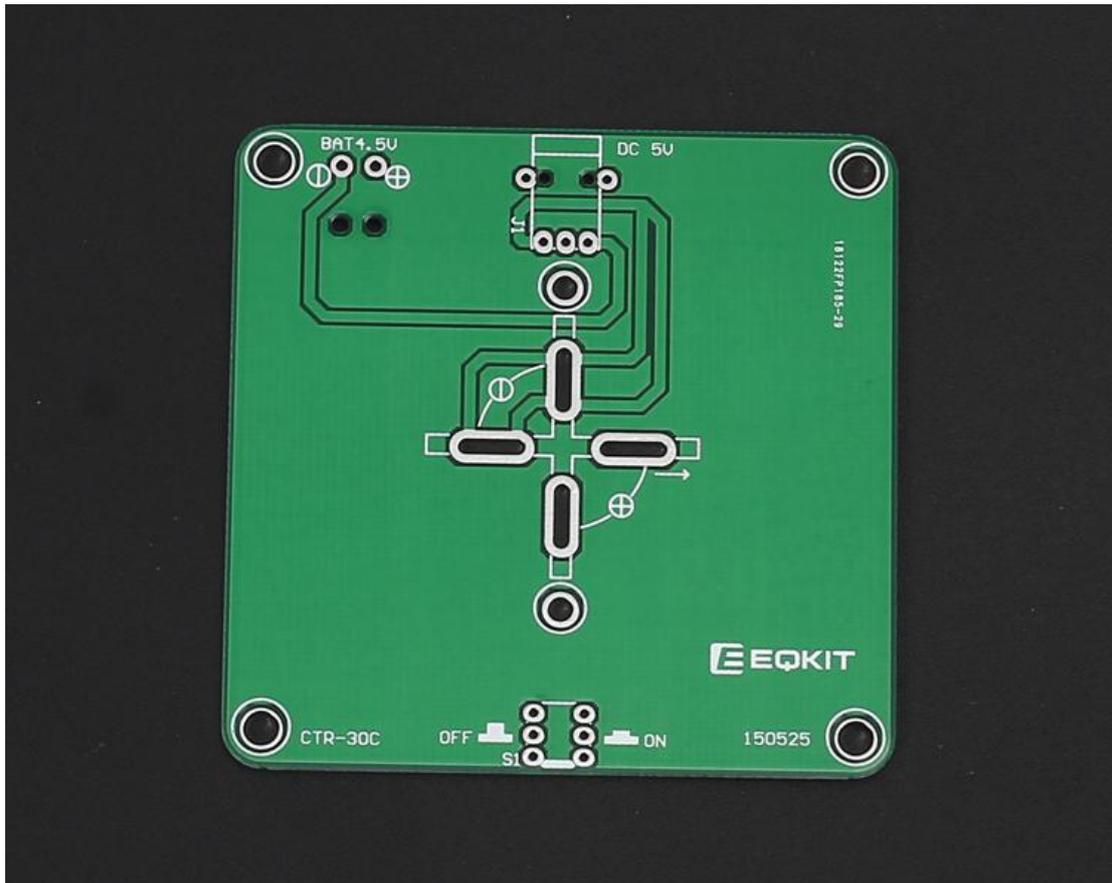
### 3>. Stitching CTR-30A and CTR-30B

Step 13: Align the two positioning heads on CTR-30A and CTR-30B and then fixed with tin.

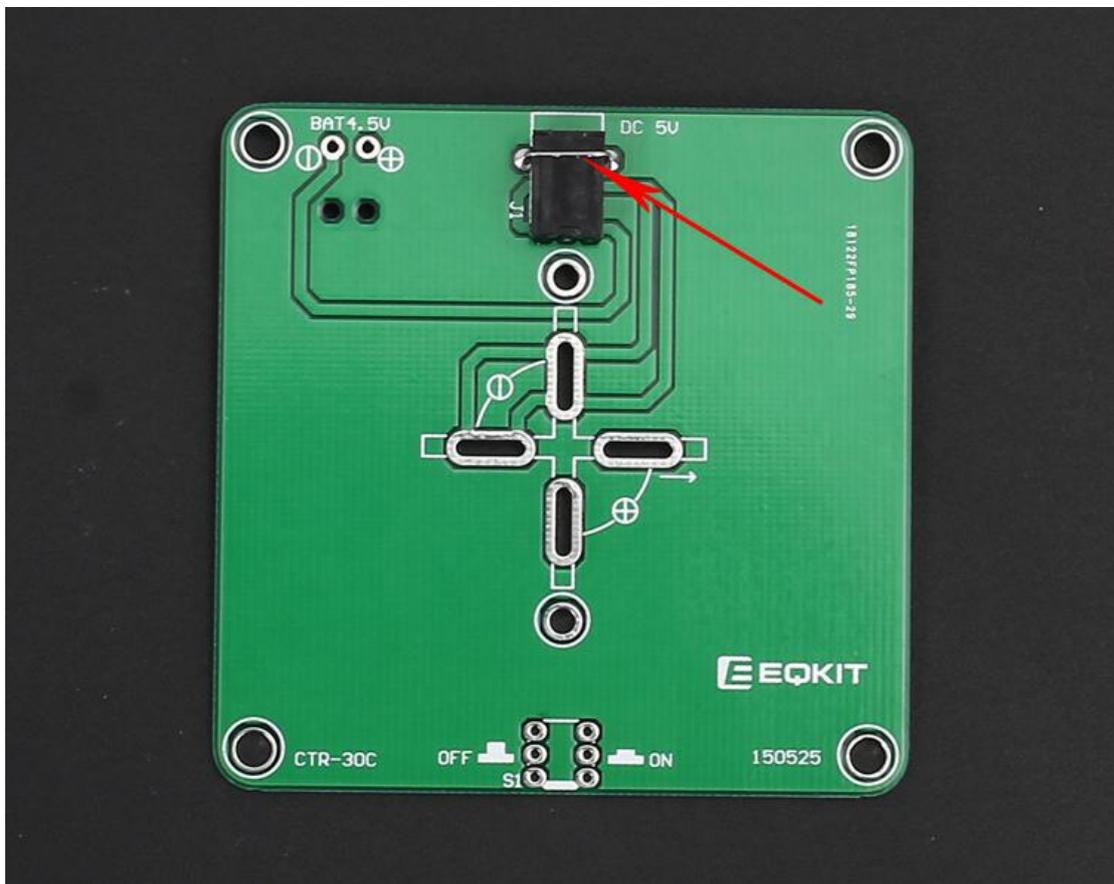
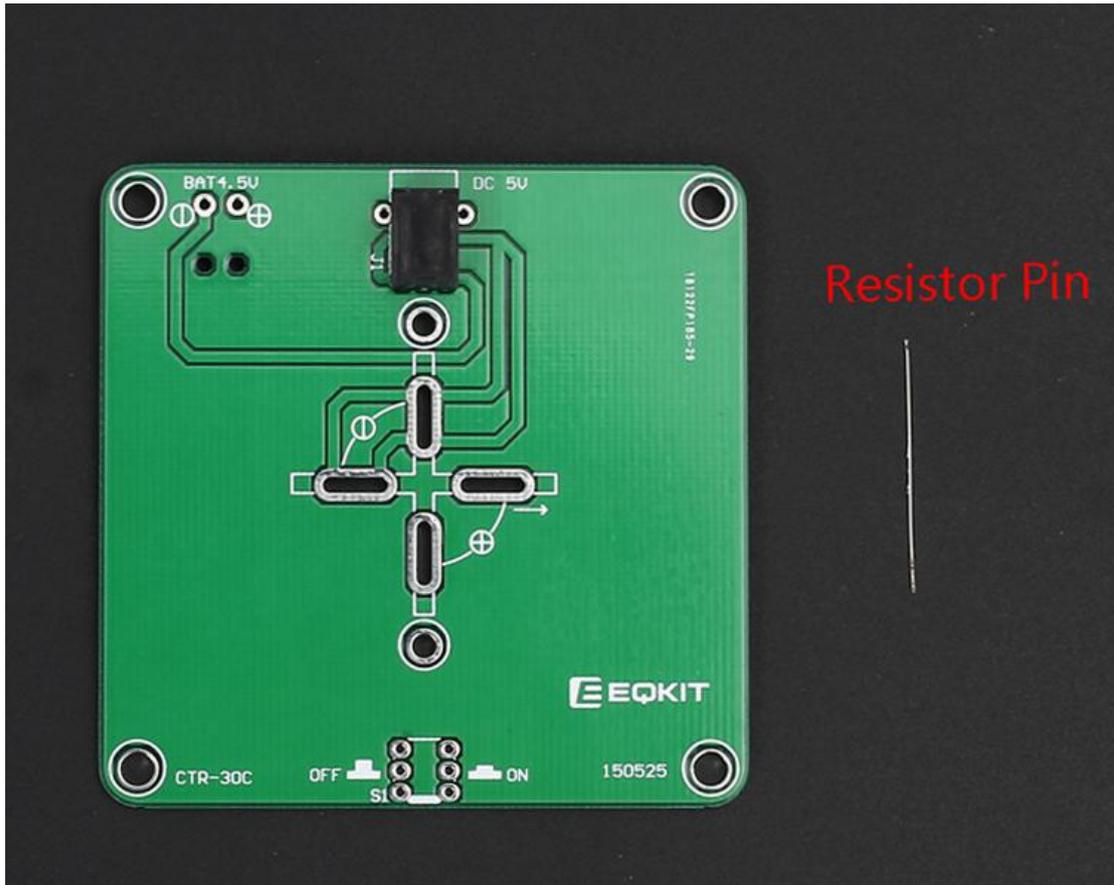




4>. Install CTR-30C

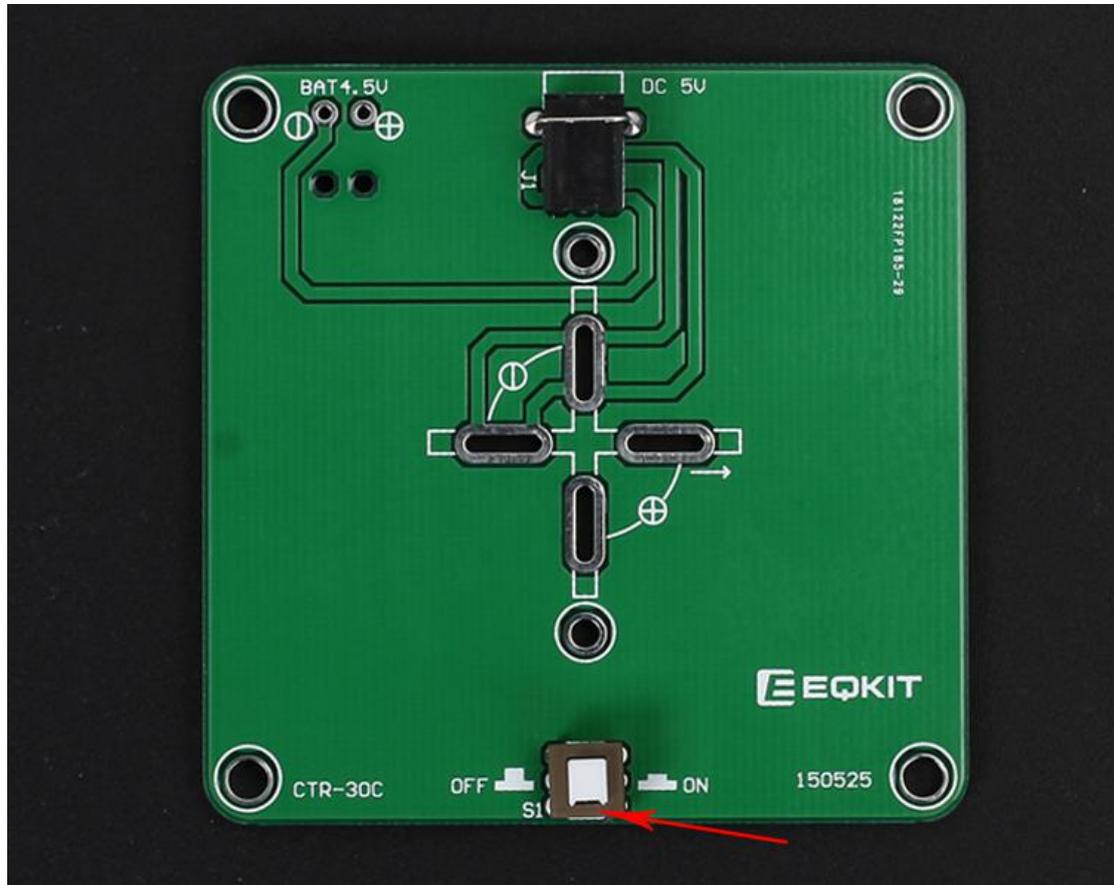


Step 14: Install Power Socket. Use a superfluous pin to fix the power supply socket. This pin can come from a resistor.



Step 15: Install 1pcs Self-Locking Switch. Note the direction of switch.

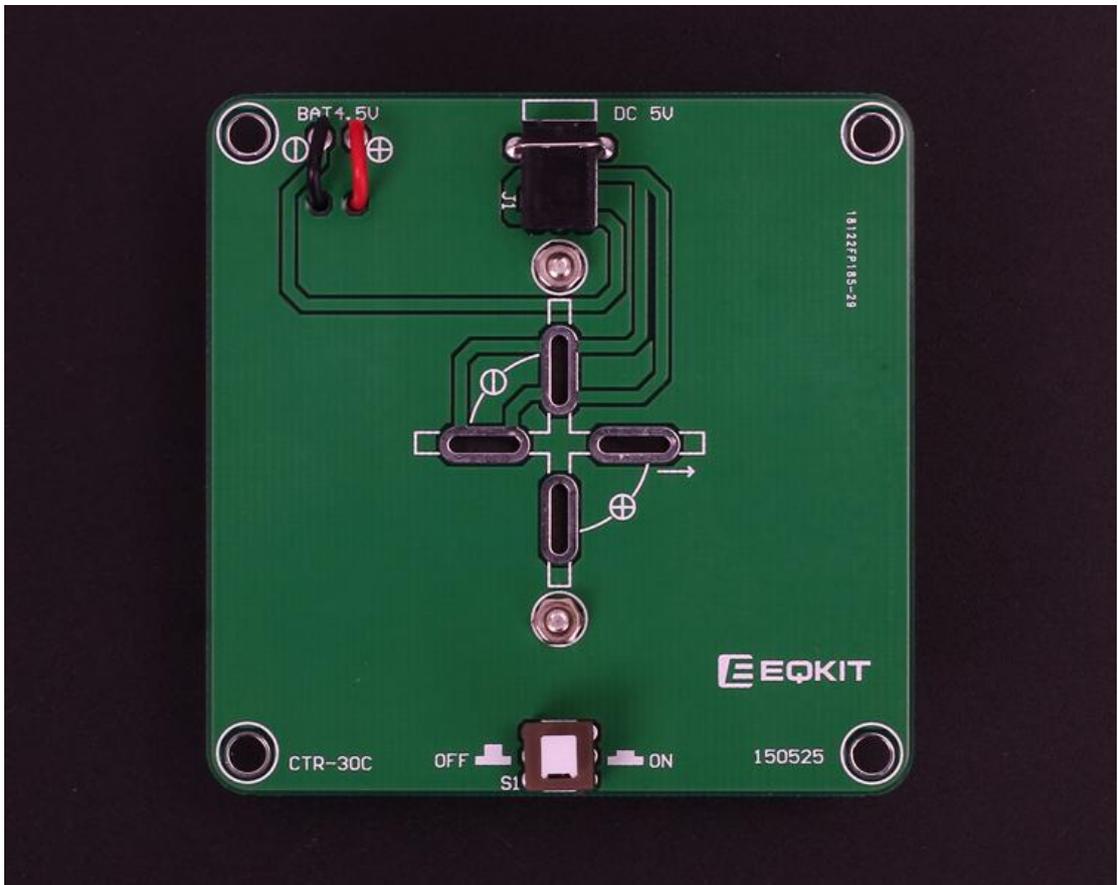
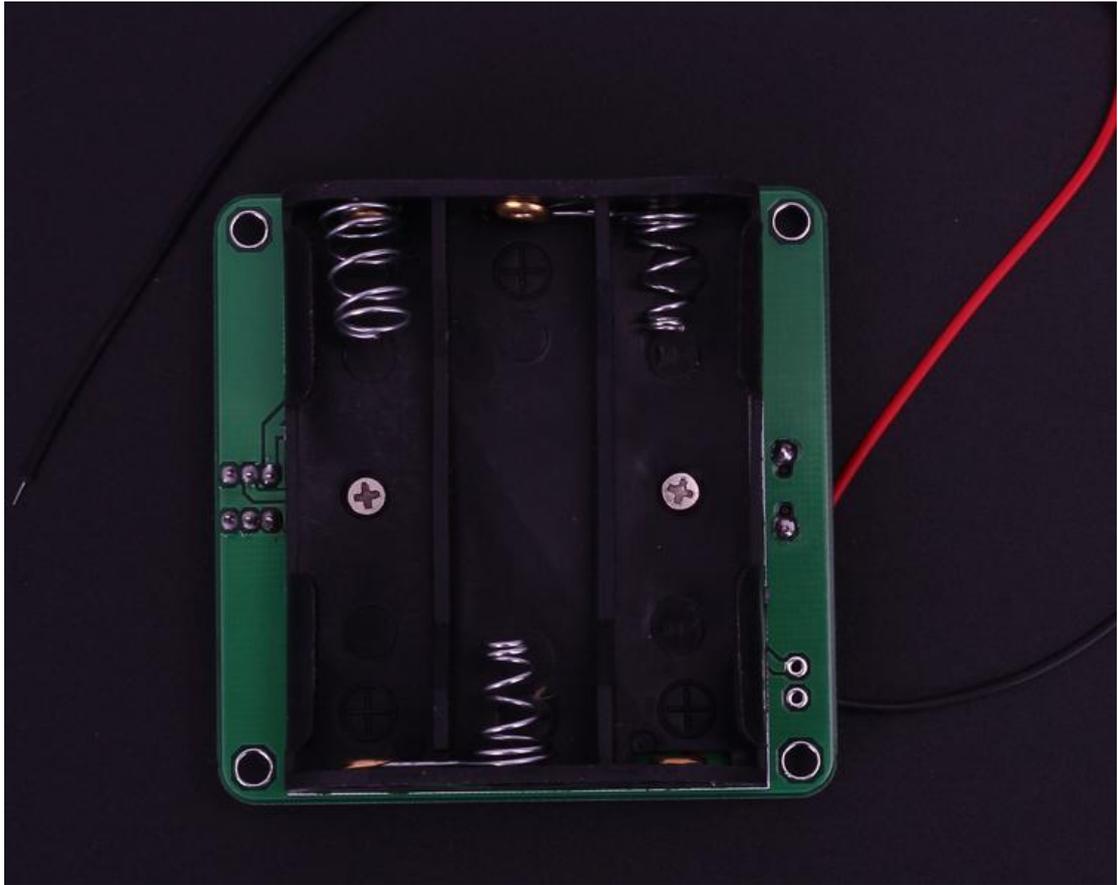
The concave side is close to the PCB edge.



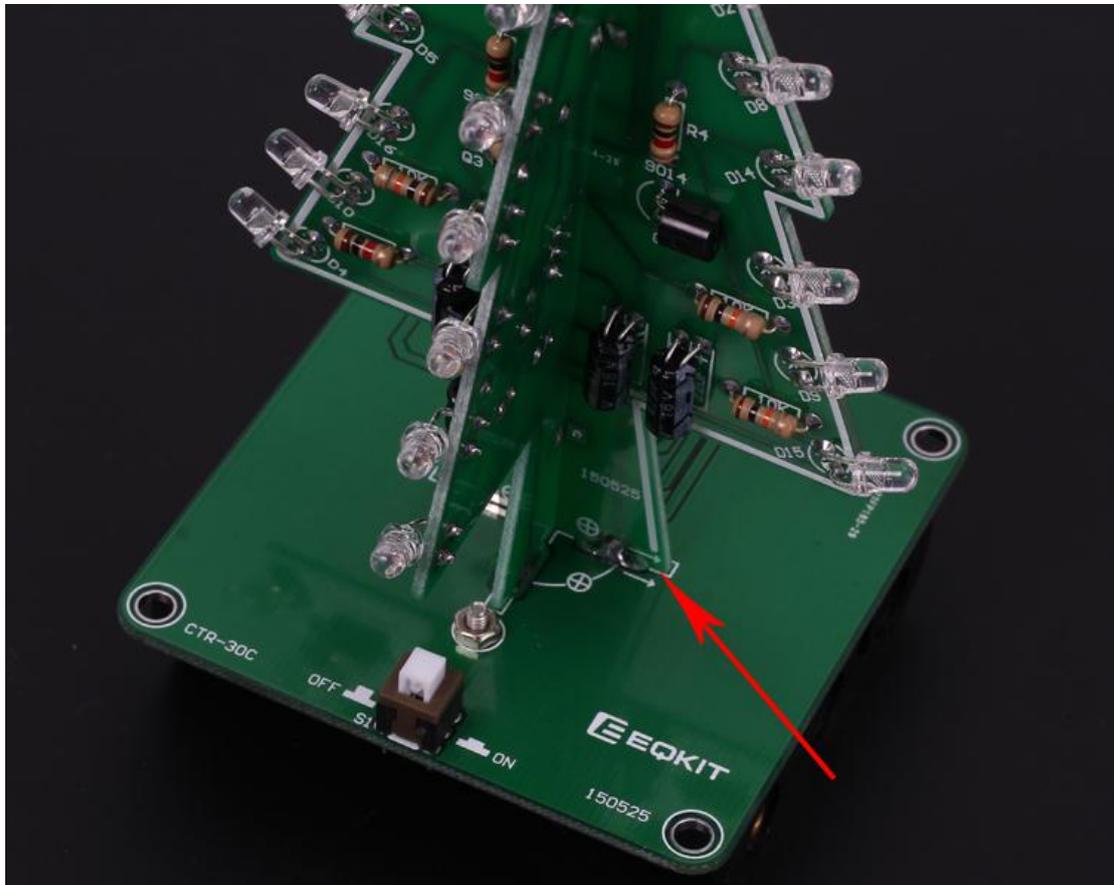
Step 16: Install battery box and fixed by screw/nut.

Tips:

First peel the insulation of the wire, and then welding fixed, and then cut off the excess wire



Step 17: Fixed CTR-30A and CTR-30B on CTR-30C. Align the two positioning heads and then fixed with tin.



Step 18: Install the top LED. Note the positive and negative of LED. At this point, the installation is complete!!



## 7.Effect demonstration

