

## Introduce

Kit Model: CTR-30 (three-color light) / CTR-30C (Colorful light)

Operating voltage: DC4.5-5V

Power supply: 3 AA batteries or USB charger

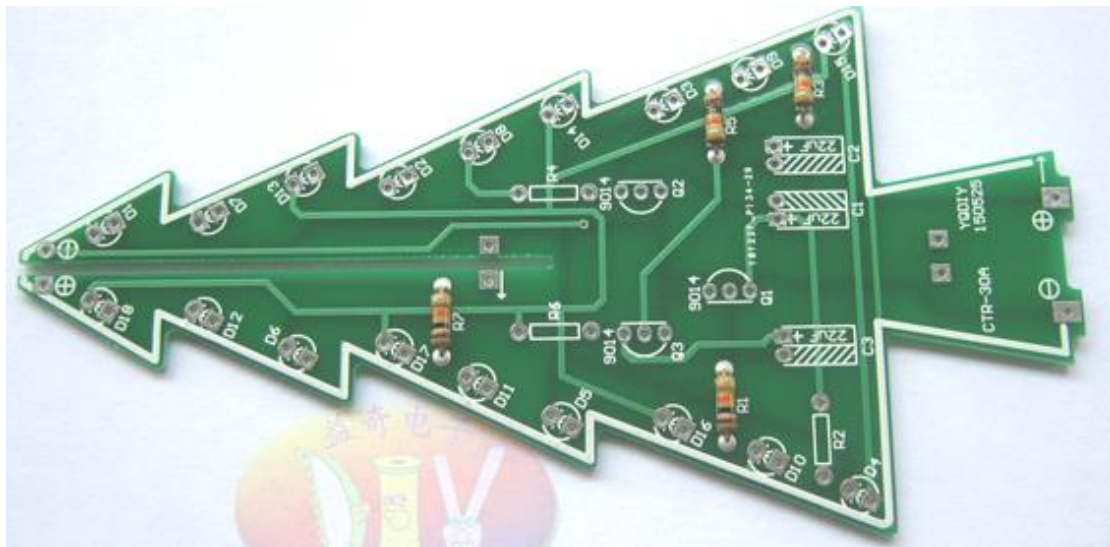
Dimensions: 60mm \* 136mm \* 60mm (L\*W\*H)

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).

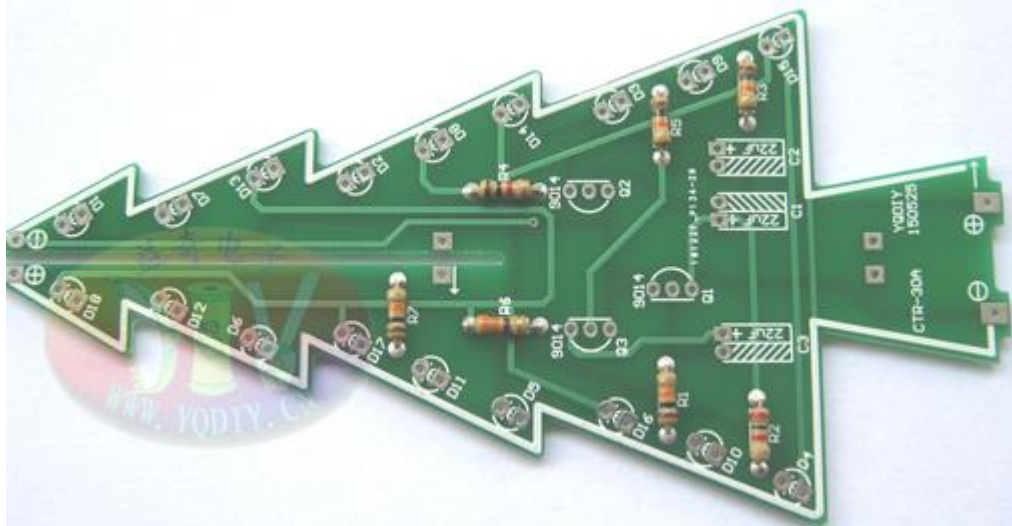
Production steps:

### Step 1: Welding CTR-30A circuit board (referred to as A board)

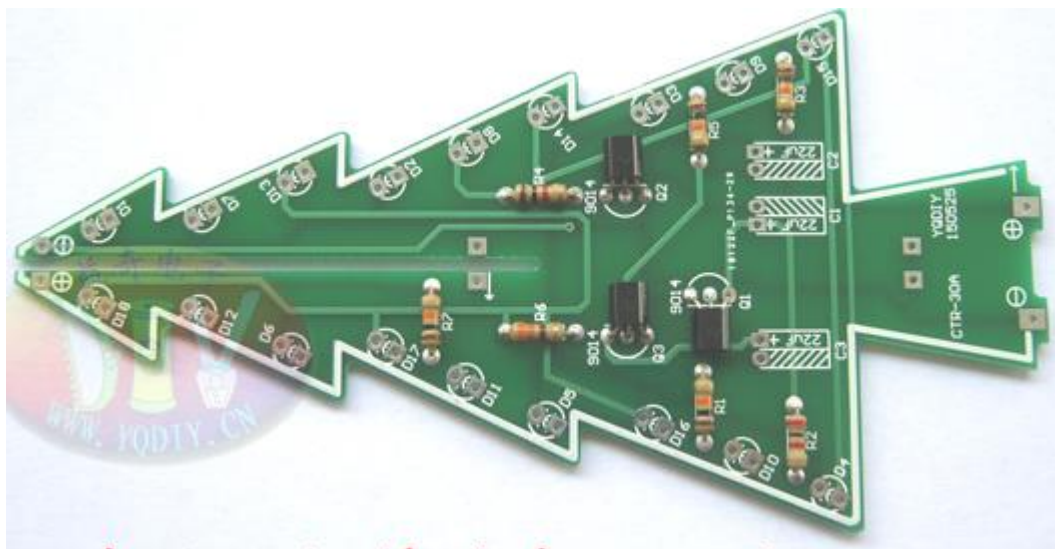
1. Soldering four resistors (R1 R3 R5 R7)



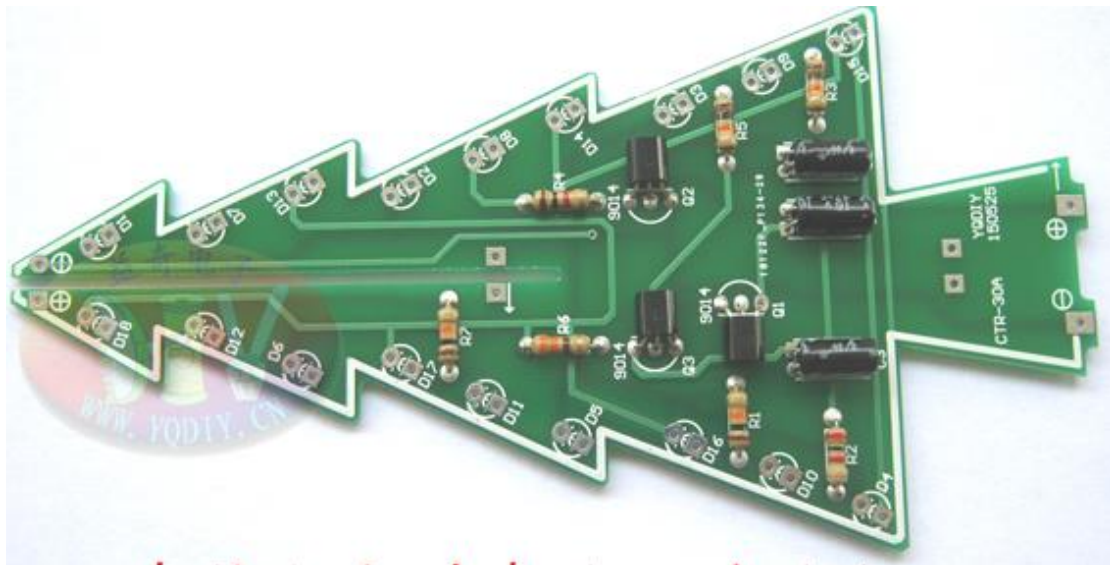
2. Welding three resistance (R2 R4 R6)



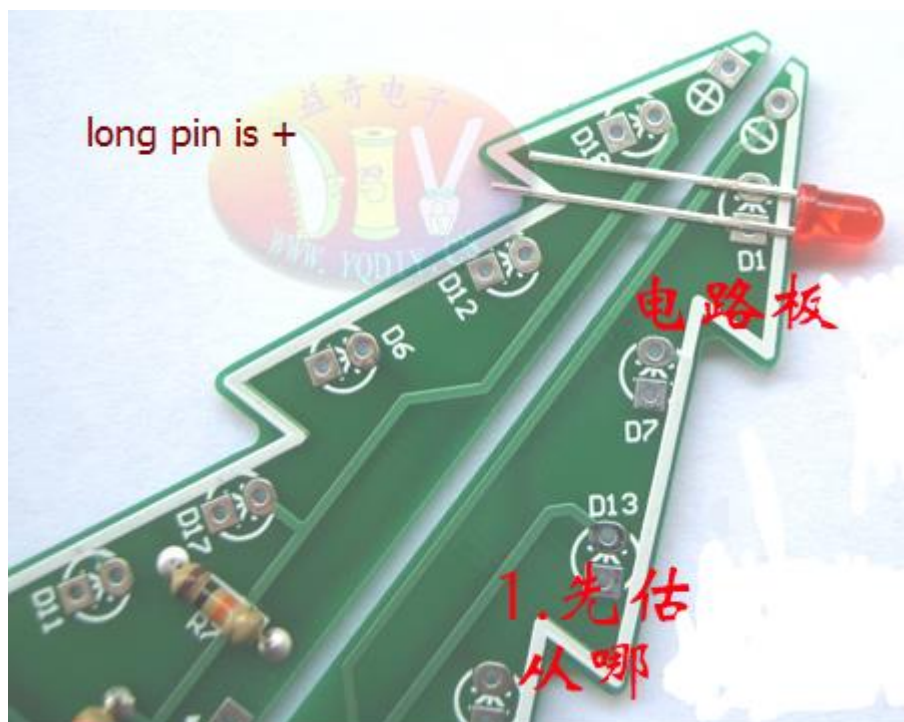
3. Welding three transistors, with horizontal installation (with directions)



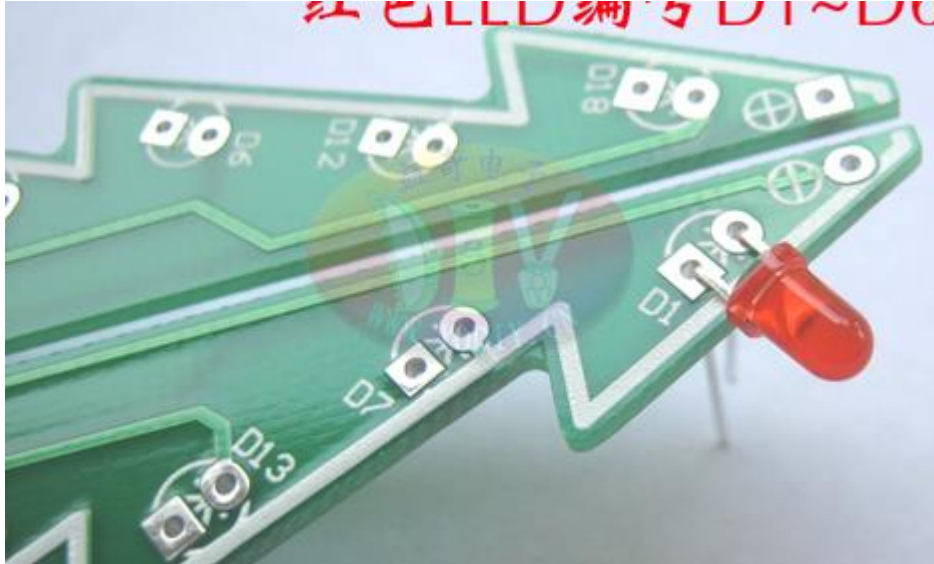
4. Welding three electrolytic capacitors, use horizontal mounting (with direction)



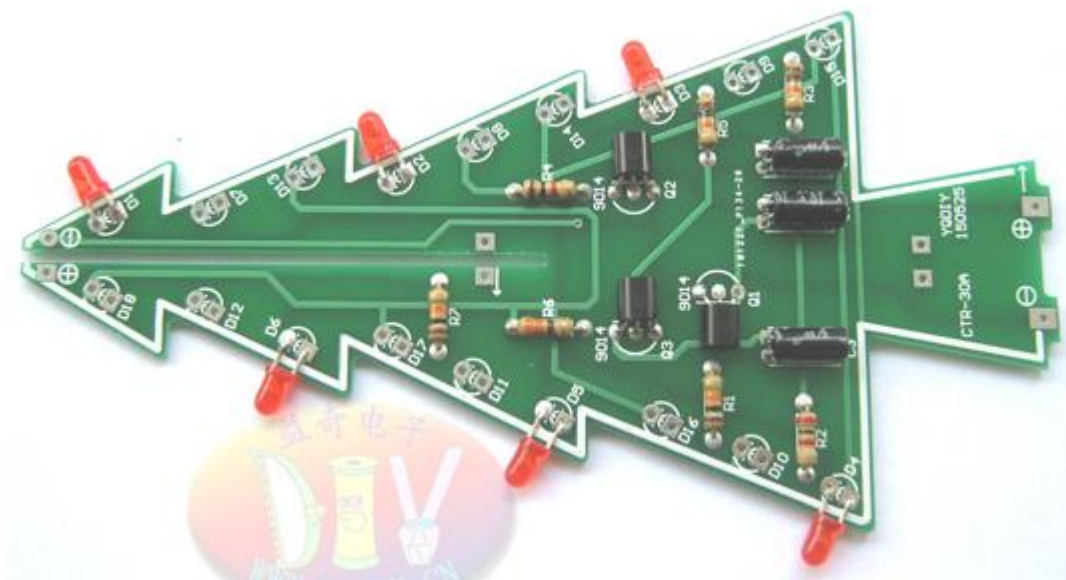
5. Welding red LED (with direction)), the red LED numbered D1 ~ D6.



6. After folded pin, inserted into the corresponding holes (note the mounting direction)

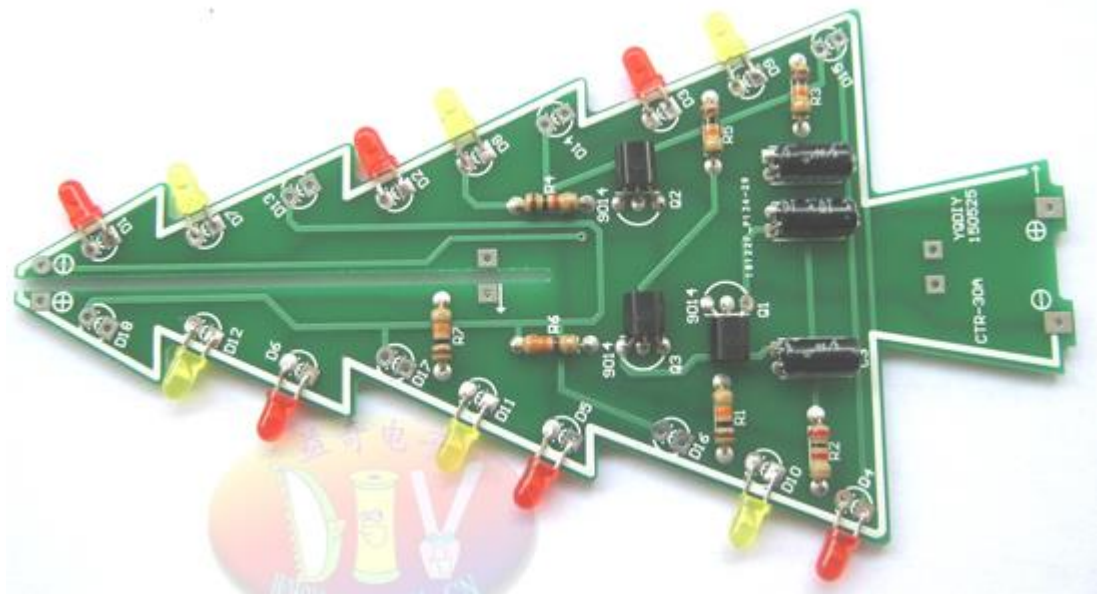


7. The red LED welding finished (No. D1 ~ D6)

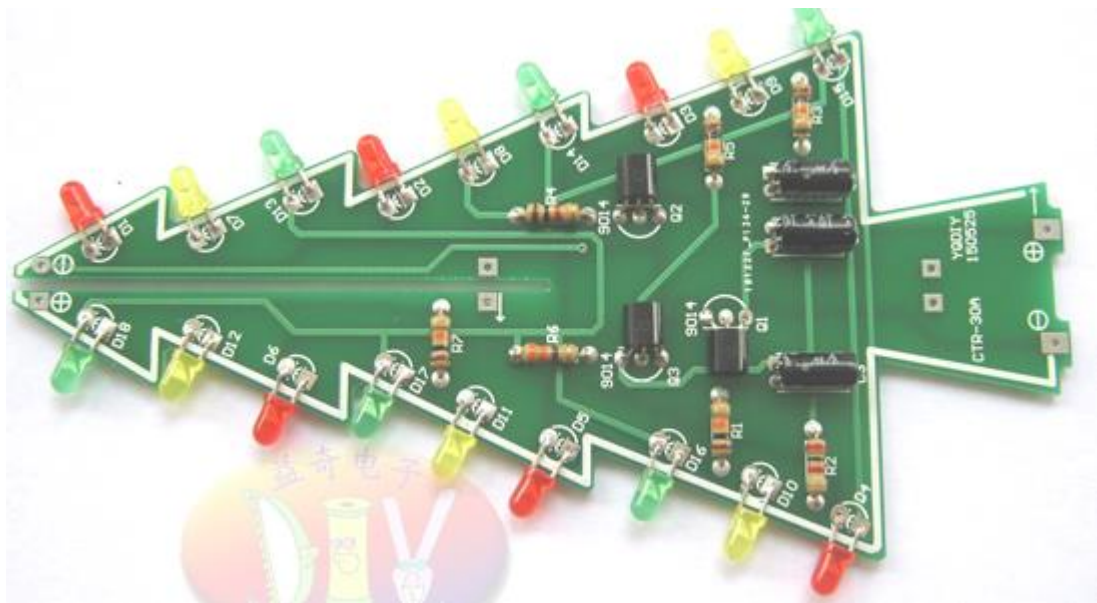




8. Welding yellow LED (with direction), No. D7 ~ D12



9. Welding green LED (with direction), number D13 ~ D18



**Now, A board welding finish.**

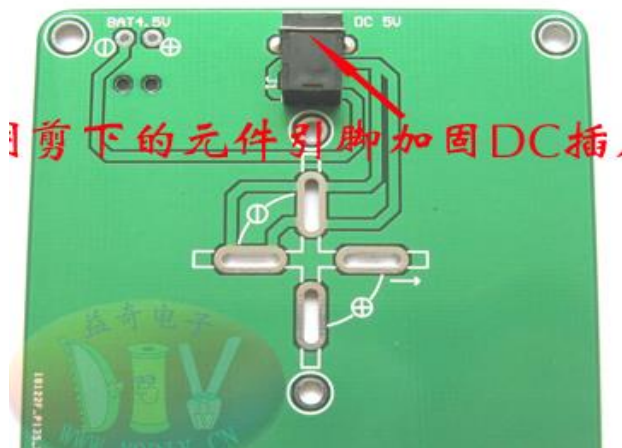
**Next using the same method welding CTR-30B circuit board , referred to as B board.**

**A board and B board has different mounting positions of the two elements:**

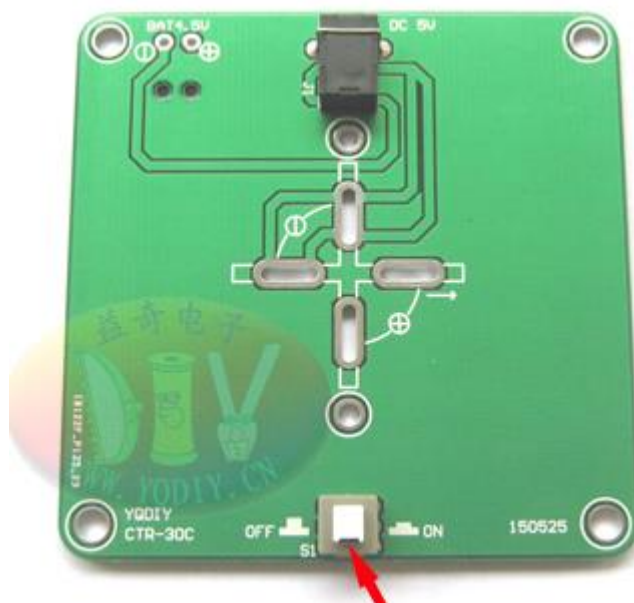
- 1. R2 R4 R6 resistance has different mounting position**
- 2. The red, green and yellow LED has different mounting position**

10. After A board and B board both are welding finish, you can power test whether two plates normal light flashes. A, B board need to continue normal flashing and continue the following step.

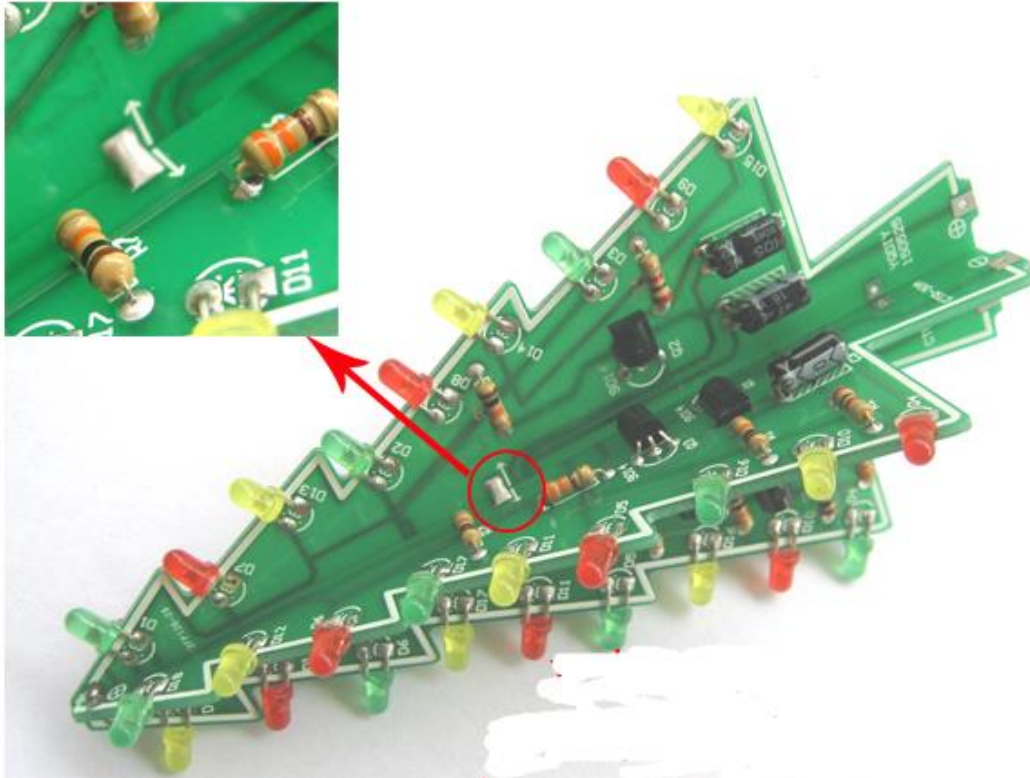
11. Welding CTR-30C circuit board, called C board  
Welding a DC socket (with direction)



12. Welding a key switch (with direction)



13. A board and B board combination (with direction, the two plates are positioned like the arrow below), after two positioning arrows are aligned, use a soldering iron to put the two board together.



14. Assembly the battery box and C board



A. welding the wire battery case

B. fixed the battery case with screws and nuts





15. Combination of A, B, C board (with direction)





16. Welding the top LED (with direction)



**Congratulation!! You finish the kit!!**



CTR-30 (three-color light)



CTR-30C (Colorful light)