

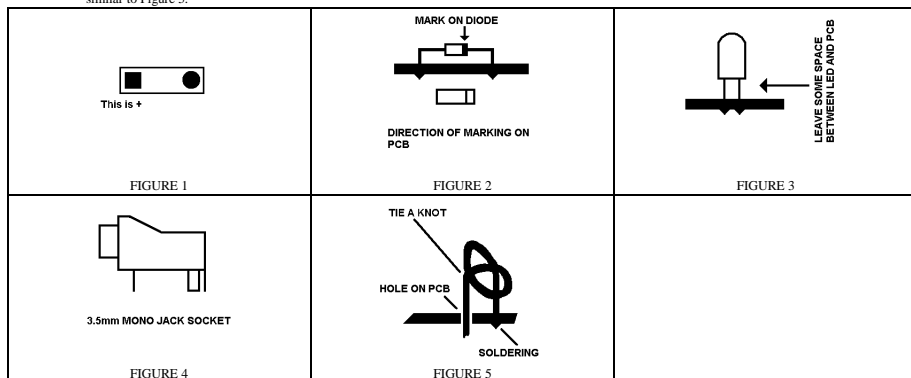
# COLORFUL FLASHING CHRISTMAS TREE

PRODUCT CODE: M00270014

DESCRIPTION: This is a very simple circuit with big fun. The LED from L1 to L12 would flash in colorful and random manner.

**READ BEFORE INSTALLATION:**

- Put the component on the side of screen printing and solder on the back of PCB without printing.
- Placing direction of component.
- 1. On component, longer leg is "+".
- 2. On PCB marking, square pad as Figure 1 is always "+".
- 3. For diode, please install as Figure 2.
- Do not put the LED to very bottom, just install as Figure 3.
- For 9V Battery Adaptor, Red is B+ and Black is B-. Also, please tie a knot after the red and black wire has passed the neighbors hole before soldering. This is similar to Figure 5.

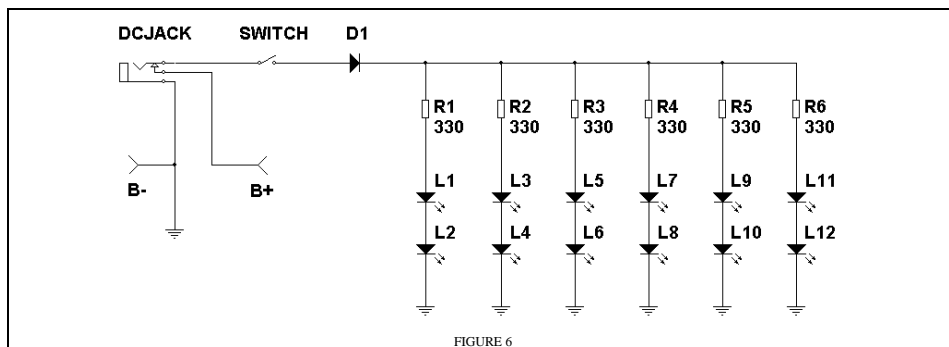


**CIRCUIT EXPLANATION:**

Please read the below together with the circuit diagram in Figure 6.

- The function of D1 is to prevent reverse power supply.
- The function of R1 is to prevent too much current to flow into the L1 and L2. Too much the current would damage the LED. R2 to R6 contain similar function.
- The LED flash because there is IC inside each of LED.

**CIRCUIT DIAGRAM:**



**INSTALLATION:**

Just install the component to the PCB M00260030 according to below table.

ITEM	SYMBOL ON PCB	DESCRIPTION	OUTLOOK	DIRECTION IS IMPORTANT?
1	R1	RESISTOR, 330 ohms	ORANGE, ORANGE BROWN	NO
2	R2	RESISTOR, 330 ohms	ORANGE, ORANGE BROWN	NO
3	R3	RESISTOR, 330 ohms	ORANGE, ORANGE BROWN	NO
4	R4	RESISTOR, 330 ohms	ORANGE, ORANGE BROWN	NO

5	R5	RESISTOR, 330 ohms	ORANGE, ORANGE BROWN	NO
6	R6	RESISTOR, 330 ohms	ORANGE, ORANGE BROWN	NO
7	D1	DIODE, 1N4001	FIGURE 2	FIGURE 2
8	L1	LED	ONE LONG LEG AND ONE SHORT LEG	YES
9	L2	LED	ONE LONG LEG AND ONE SHORT LEG	YES
10	L3	LED	ONE LONG LEG AND ONE SHORT LEG	YES
11	L4	LED	ONE LONG LEG AND ONE SHORT LEG	YES
12	L5	LED	ONE LONG LEG AND ONE SHORT LEG	YES
13	L6	LED	ONE LONG LEG AND ONE SHORT LEG	YES
14	L7	LED	ONE LONG LEG AND ONE SHORT LEG	YES
15	L8	LED	ONE LONG LEG AND ONE SHORT LEG	YES
16	L9	LED	ONE LONG LEG AND ONE SHORT LEG	YES
17	L10	LED	ONE LONG LEG AND ONE SHORT LEG	YES
18	L11	LED	ONE LONG LEG AND ONE SHORT LEG	YES
19	L12	LED	ONE LONG LEG AND ONE SHORT LEG	YES
20	SWITCH	SLIDE SWITCH	6 LEGS	NO
21	DCJACK	3.5mm MONO JACK SOCKET	FIGURE 4	YES
22	B+, B-	9V BATTERY ADAPTOR	RED WIRE, BLACK WIRE	YES

- After installation, you can use external DC adaptor as power sources. You can use our product M00270013 or other similar adaptor.