Christmas Snowman Music Player DIY Kit

1.Introduction:

It is designed into ten different Christmas snowman cute cartoon characters, each Christmas snowman middle character is combined into "CHRISTMAS!", and there is a full color LED behind, with 14 full color LED gradient modes, each LED The effect is matched with a different Christmas song, with a total of 14 Christmas songs built in, so that the effect of the combination of sound and color can increase the Christmas day atmosphere.

2.Feature:

1>.10 different Christmas snowman shapes
2>.14 different Christmas music
3>.14 kinds RGB backlight LED full color flashing effect
4>.Automatically switch LED flashing status by re-start power switch
5>.Automatically switch Christmas music by re-start power switch
6>.ON/OFF Christmas music playing
7>.5mm RGB LED high brightness
8>."CHRISTMAS!" character display
9>.DIP components design and easy for beginner
10>.Mini USB power supply method

3.Parameter:

1>.Work Voltage:DC 5V
2>.Work Temperature:-40℃~85℃
3>.Work Humidity:5%~95%RH
4>.Size(Installed):200*40*13mm

4.Music:

1>.We wish you a merry Christmas
2>.Santa Claus Is Coming To Town
3>.Silent Night
4>.When a child is born
5>.Christmas blessing song
6>.O Christmas Tree
7>.I saw three ships
8>.It Came Upon A Midnight Clear
9>.White Christmas
10>.Joy To The World
11>.Merry Christmas
12>.Christmas Day
13>.Rudolph the red-nosed reindeer
14>.Jingle Bells

5.Use Methods:

1>.Connect to the 5V power supply by Mini USB cable.
2>.Turn ON/OFF the middle Toggle Switch can turn ON/OFF work power and switch next LED Flashing Status.
3>.Turn ON/OFF the right Toggle Switch can turn ON/OFF music and switch next music.

6.Component Listing:

1>.4pcs 100ohm Metal Film Resistor
2>.1pcs DIP-16 STC8G1K17 IC Controller
3>.1pcs TO-92 S9012 Transistor
4>.1pcs Mini USB Socket
5>.1pcs Active Buzzer
6>.2pcs Toggle Switch
7>.10pcs 4pin 5mm RGB LED
8>.1pcs 80cm USB Power Wire
9>.1pcs 200*40mm PCB

7.Application:

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

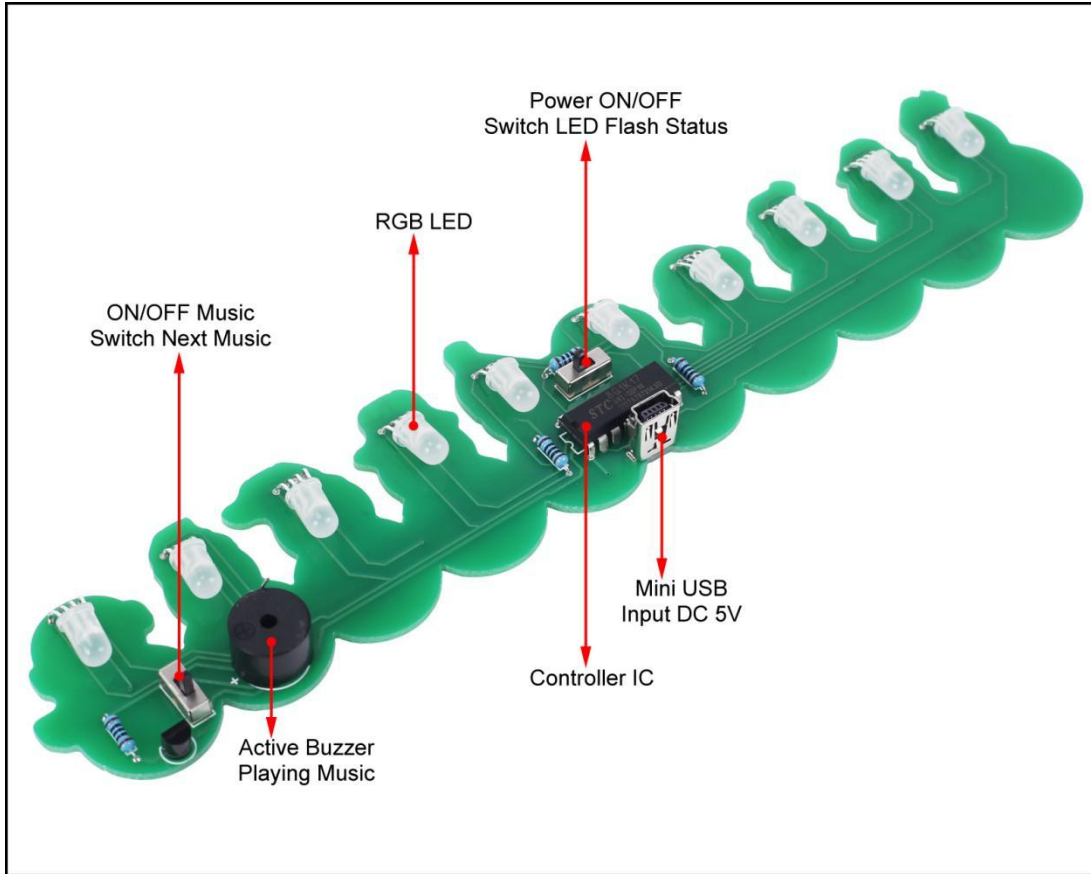## 8.Installation Tips:

1>.User needs to prepare the welding tool at first.
    1.1>.Soldering iron (<50 Watt)
    1.2>.Rosin core ("radio") solder
    1.3>.Wire cutters
    1.4>.Wire strippers
    1.5>.Screwdriver
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>.It is strongly recommended to read the installation manual before starting installation!!!
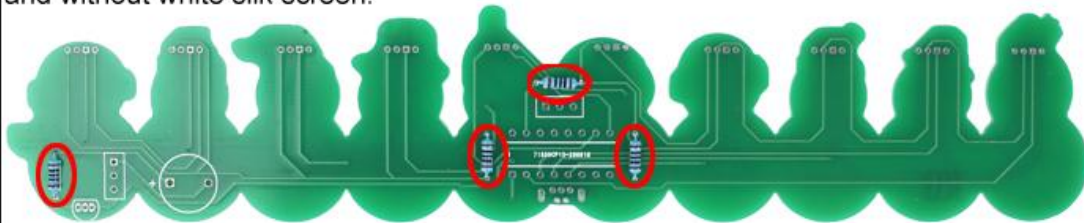11>.Please wear anti-static gloves or anti-static wristbands when installing electronic components.

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

1>.Step 1: Install 4pcs 100ohm Metal Film Resistor on PCB back side which all in green and without white silk screen.
2>.Step 2: Install 1pcs DIP-16 STC8G1K17 IC Controller.There is a dot mark on one end of the IC and there is a gap mark on PCB silk screen 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.
3>.Step 3: Install 1pcs Active Buzzer. Note: Label ' + ' connect to the square pad.
4>.Step 4: Install 2pcs Toggle Switch.
5>.Step 5: Install 1pcs TO-92 S9012 Transistor. Pay attention to the installation direction. The arc on the PCB corresponds to the arc on S9012.
6>.Step 6: Install 4pin 5mm RGB LED. Note: The longest pin connect to the square pad. Pay attention to keeping a distance of 5mm and then bend the LED as shown.
7>.Step 7: Install the remaining 4pin 5mm RGB LED by the same method.
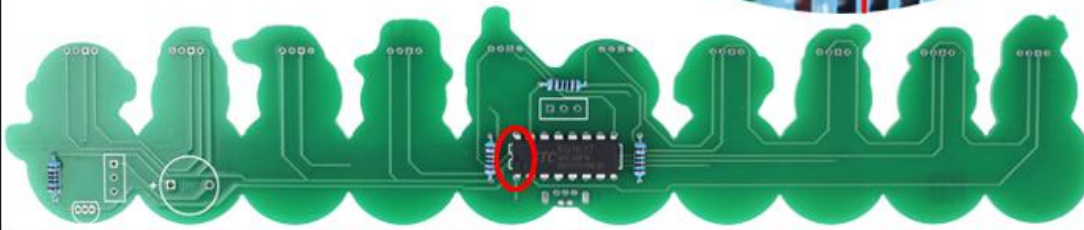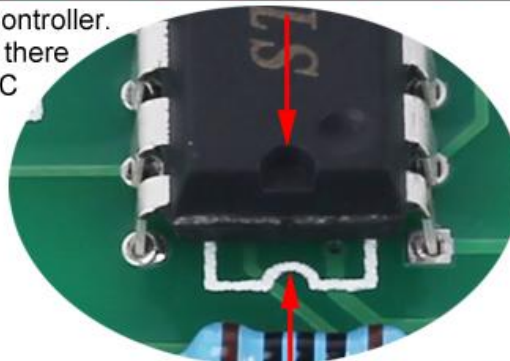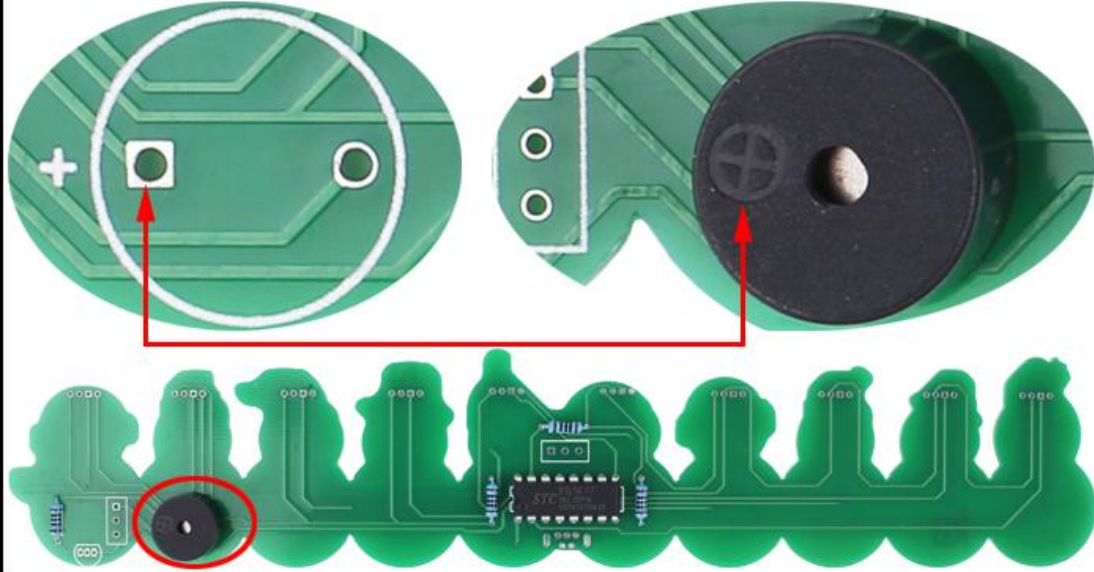8>.Step 8: Install 1pcs Mini USB Socket.

10.Install shown steps:

Power ON/OFF
Switch LED Flash Status

RGB LED

ON/OFF Music
Switch Next Music

Mini USB
Input DC 5V

Controller IC

Active Buzzer
Playing Music

Step 1: Install 4pcs 100ohm Metal Film Resistor on PCB back side which all in green and without white silk screen.
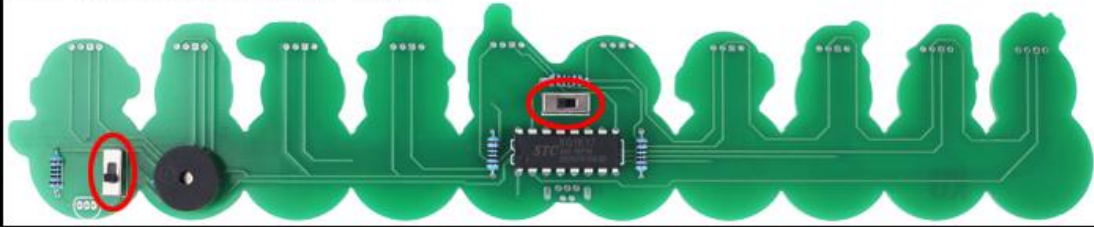

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Step 3: Install 1pcs Active Buzzer. Note: Label ' + ' connect to the square pad.
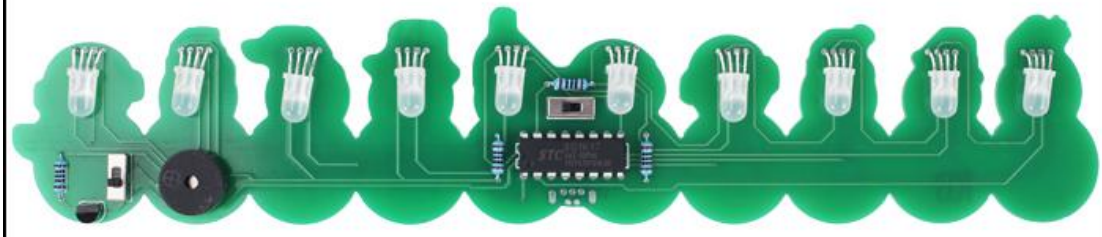

Step 4: Install 2pcs Toggle Switch.

Step 5: Install 1pcs TO-92 S9012 Transistor. Pay attention to the direction.The arc on the PCB corresponds to the arc on S9012.

Arc-shaped

Step 6: Install 4pin 5mm RGB LED. Note: The longest pin connect to the square pad. Pay attention to keeping a distance of 5mm and then bend the LED as shown.

Square Pad

The Longest Pin

≈5mm

Step 7: Install the remaining 4pin 5mm RGB LED by the same method.

Step 8: Install 1pcs Mini USB Socket.