



**OSEPP USA, INC.**  
2105 S Hardy Dr., Unit # 19  
Tempe, Arizona, 85282  
USA

# Holiday Ornaments DIY Solder Kit

Cat #: DIY-200

Learn to solder with easy-to-follow instructions. Idea for hobbyists and education institutes.



## Bell

- ✓ Beginner level difficulty
- ✓ 31 solder points
- ✓ Multicolor cycling RGB (slow)
- ✓ On/Off switch
- ✓ Coin battery powered (CR1220)
- ✓ Batteries not included
- ✓ Size: 70 x 54 mm



## Tree

- ✓ Beginner level difficulty
- ✓ 31 solder points
- ✓ Multicolor cycling RGB (fast)
- ✓ On/Off switch
- ✓ Size: 70 x 50 mm



## Snowflake







- ✓ Beginner level difficulty
- ✓ 31 solder points
- ✓ Multicolor cycling RGB (fast)
- ✓ On/Off switch
- ✓ Size: 60 x 60 mm








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## Kit Contents: **Bell**

| Component Name    | Value                         | Qty | Designator  | Important Info                               | Image Reference   |
|-------------------|-------------------------------|-----|-------------|--|---|
| LED 5mm           | Multicolor Cycling RGB (slow) | 6   | LED1 - LED6 | Watch the polarity. Long leg is positive (+) |    |
| Resistors         | 1K                            | 6   | R1 – R6     | No polarity                                  |    |
| On/Off Switch     | 4 x 8 mm                      | 1   | SW2         | No polarity                                  |    |
| Coin Battery Clip | CR1220                        | 1   | P1          | Watch the position                           |    |
| PCB               | 70 x 54 mm                    | 1   | n/a         |  |   |
| Desoldering Braid | 6" (2.5mm width)              | 1   | n/a         | Used to remove solder to correct mistakes    |  |







## Kit Contents: **Tree**

| Component Name | Value                         | Qty | Designator  | Important Info                               | Image Reference   |
|----------------|-------------------------------|-----|-------------|--|---|
| LED 5mm        | Multicolor Cycling RGB (slow) | 6   | LED1 - LED6 | Watch the polarity. Long leg is positive (+) |  |
| Resistors      | 1K                            | 6   | R1 – R6     | No polarity                                  |  |
| On/Off Switch  | 4 x 8 mm                      | 1   | SW2         | No polarity                                  |  |

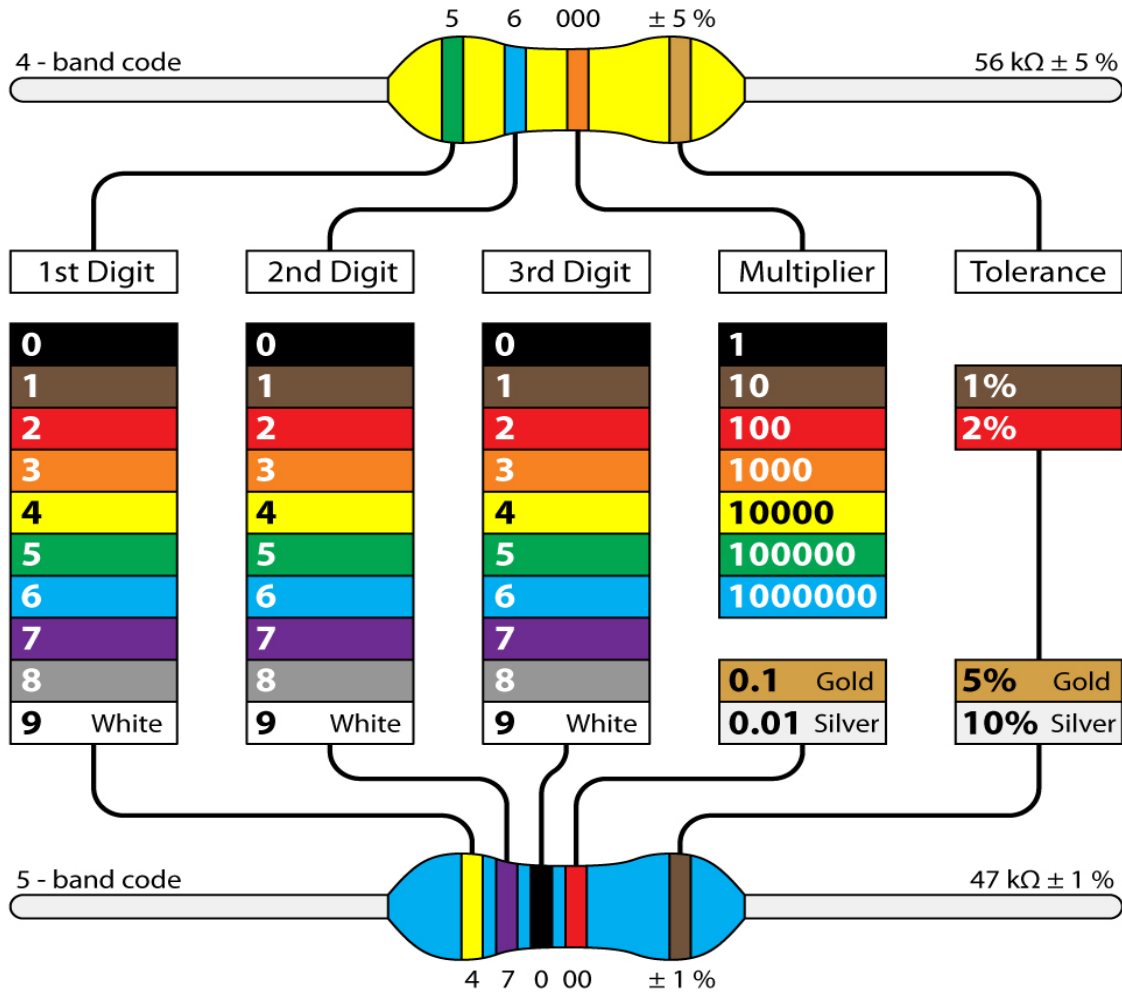


|                   |                  |   |     |   |   |
|-------------------|------------------|---|-----|---|---|
| Coin Battery Clip | CR1220           | 1 | P1  | Watch the position                        |  |
| PCB               | 70 x 54 mm       | 1 | n/a |   |  |
| Desoldering Braid | 6" (2.5mm width) | 1 | n/a | Used to remove solder to correct mistakes |  |

### Kit Contents: **Snowflake**

| Component Name    | Value                         | Qty | Designator  | Important Info                               | Image Reference   |
|-------------------|-------------------------------|-----|-------------|--|---|
| LED 5mm           | Multicolor Cycling RGB (fast) | 6   | LED1 - LED6 | Watch the polarity. Long leg is positive (+) |  |
| Resistors         | 1K                            | 6   | R1 – R6     | No polarity                                  |  |
| On/Off Switch     | 4 x 8 mm                      | 1   | SW2         | No polarity                                  |  |
| Coin Battery Clip | CR1220                        | 1   | P1          | Watch the position                           |  |
| PCB               | 70 x 54 mm                    | 1   | n/a         |  |  |
| Desoldering Braid | 6" (2.5mm width)              | 1   | n/a         | Used to remove solder to correct mistakes    |  |

## Resistor colour code

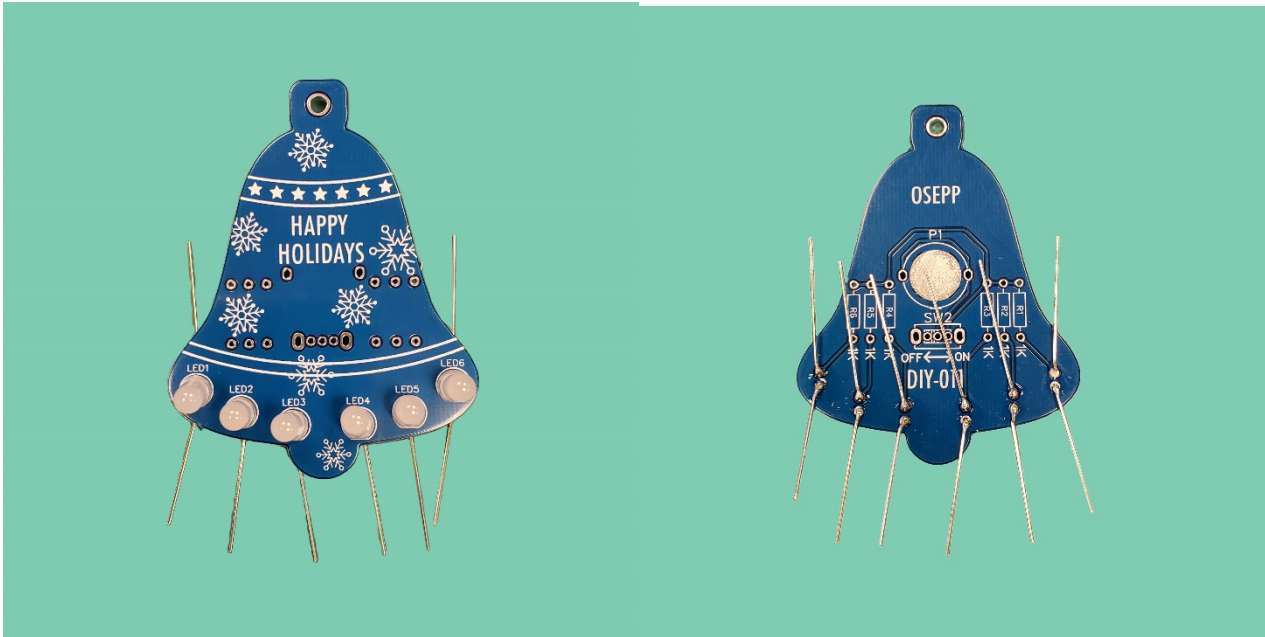


|   |  |  |
|---|--|--|
| <p><b><u>100 ohms</u></b></p> <p>Brown/Black/Brown/Gold</p>   | <p><b><u>1K ohms</u></b></p> <p>Brown/Black/Red/Gold</p>     | <p><b><u>1 MEG</u></b></p> <p>Brown/Black/Green/Gold</p> |
| <p><b><u>300 ohms</u></b></p> <p>Orange/Orange/Brown/Gold</p> | <p><b><u>10K ohms</u></b></p> <p>Brown/Black/Orange/Gold</p> |  |

## Step-by-Step Instruction: BELL

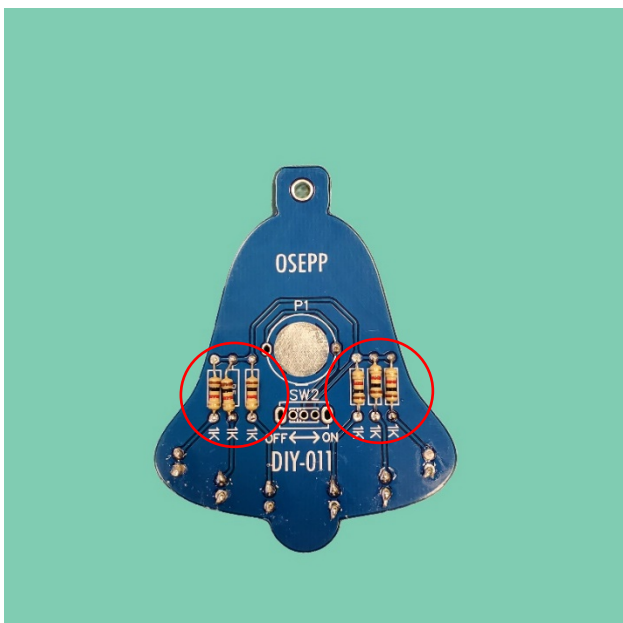
### STEP 1: Place and solder LEDs into place

- The longer lead on the LED is positive (+).
- To hold the LED in place to solder, bend the lead on the back of the PCB.
- A diagonal cutter is required (not Incl.) to cut off the leads after soldering.



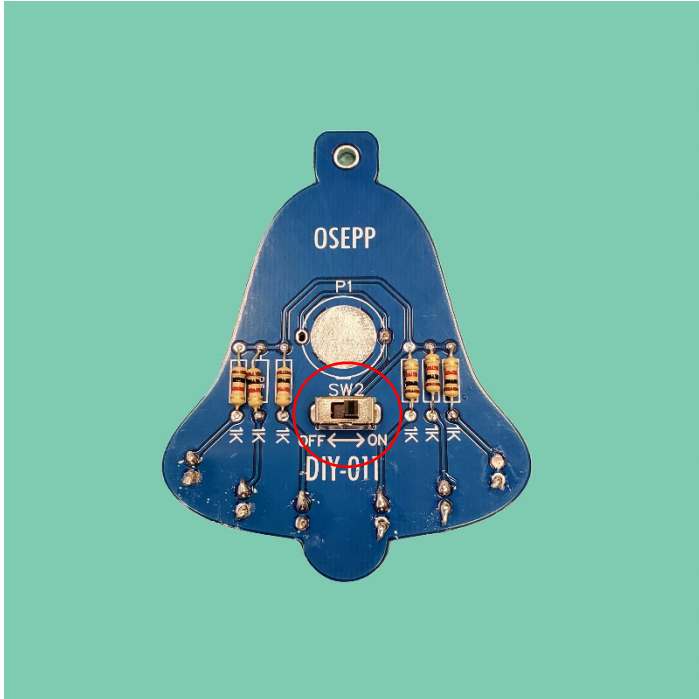
### STEP 2: Place and solder the resistors into place.

- There is no polarity with the resistors



Step 3: Place and solder the **On/Off switch** into place.

- There is no polarity with the on/off switch



Step 4: Place and solder the **Coin Batter Clip** into place.

- Watch the position so that the coin battery can be placed from the top of the bell downwards.
- Requires CR1220 (available on Amazon).
- Battery not included.



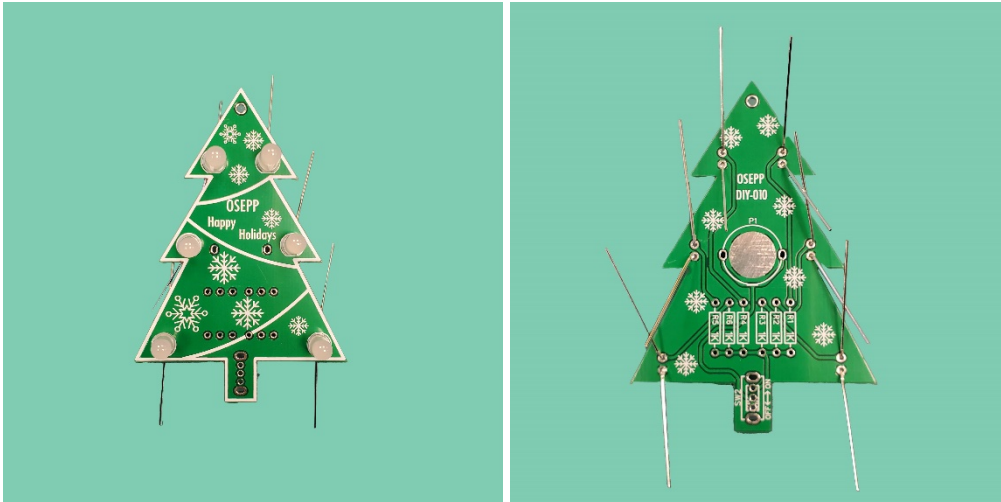


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## Step-by-Step Instruction: Tree

### STEP 1: Place and solder LEDs into place

- The longer lead on the LED is positive (+).
- To hold the LED in place to solder, bend the lead on the back of the PCB.
- A diagonal cutter is required (not Incl.) to cut off the leads after soldering.



### STEP 2: Place and solder the resistors into place.

- There is no polarity with the resistors



### Step 3: Place and solder the On/Off switch into place.



- There is no polarity with the on/off switch



Step 4: Place and solder the **Coin Batter Clip** into place.

- Watch the position so that the coin battery can be placed from the top of the bell downwards.
- Requires CR1220 (available on Amazon).
- Battery not included.

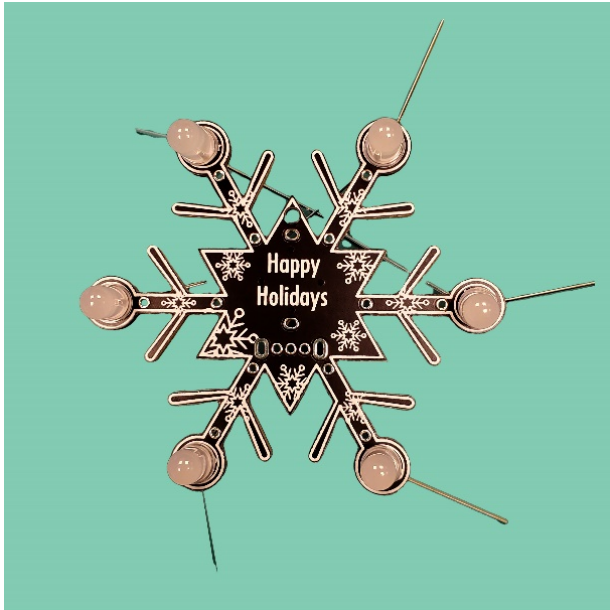




## Step-by-Step Instruction: Snowflake

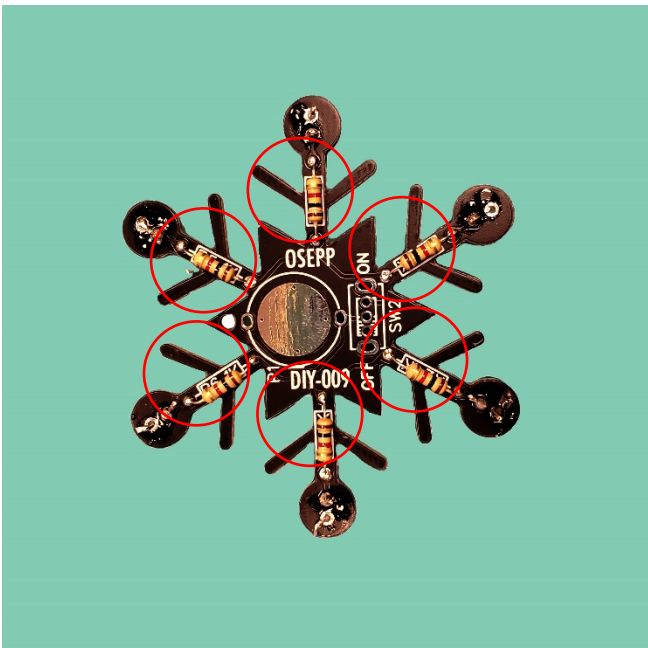
### STEP 1: Place and solder LEDs into place

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- A diagonal cutter is required (not Incl.) to cut off the leads after soldering.



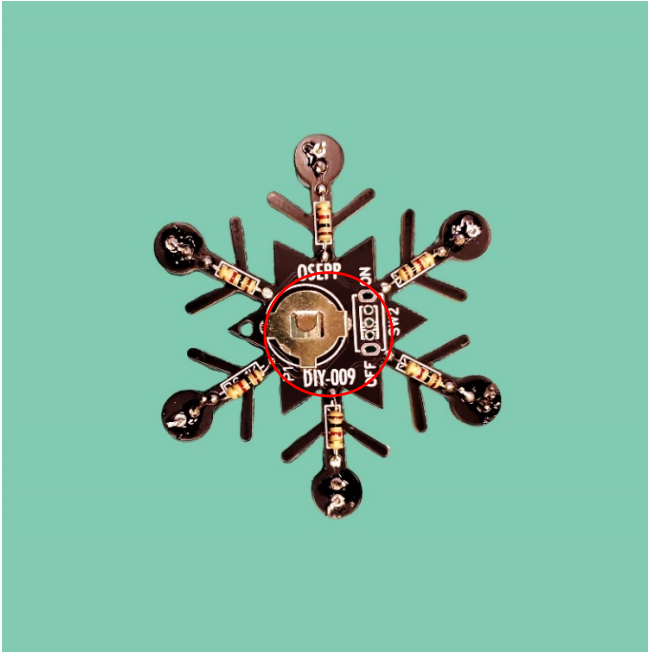
### STEP 2: Place and solder the resistors into place.

- There is no polarity with the resistors



Step 4: Place and solder the **Coin Batter Clip** into place.

- Watch the position so that the coin battery can be placed from the top of the bell downwards.
- Requires CR1220 (available on Amazon).
- Battery not included.



Step 3: Place and solder the **On/Off switch** into place.

- There is no polarity with the on/off switch

