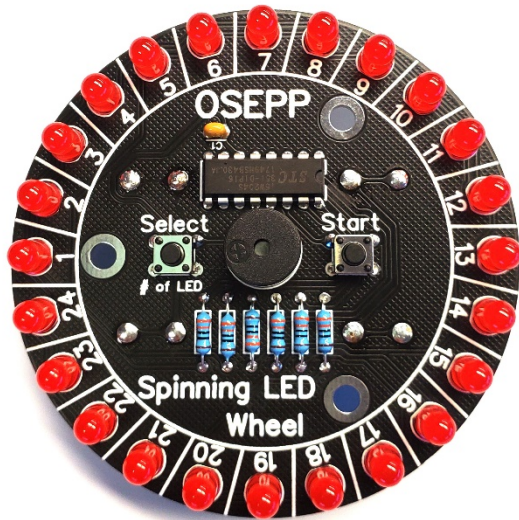# Spinning Wheel DIY Solder Kit

Cat #: DIY-006

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

- ✓ 24 LEDs (extras included)
- ✓ Spinning sound
- ✓ 1 to 12 LED spin selection
- ✓ Push button operation
- ✓ 2xAAA battery power (not Incl.)
- ✓ Microprocessor technology
- ✓ Auto power off in 2 min

Kit Contents:

Component Name	Value	Qty	Designator	Important Info	Image Reference
LED 5mm	5mm	24	LED1…. LED24	Watch the polarity. Long leg is positive (+)	
Mini Push Button	6x6mm	2	KEY1, KEY2	No polarity	
Resistors	330 ohms	6	R1…. R6	No polarity	

Buzzer	3V	1	BUZZER1	Watch the polarity	
Integrated Circuit (IC)	STC15W204S	1	U1	Match the 'notch' on the silkscreen to the notch on the IC.	
Battery Clip	AAA	4	BT1, BT2, BT3, BT4	Pay attention to the placement direction.	
Capacitor	100nF	1	C1	No polarity	
Desoldering Braid	6" long (2.5mm width)	1	n/a	Use to remove solder when correcting mistakes	

Resistor colour code

	5	6	000	± 5 %

4 - band code   56 kΩ ± 5 %

1st Digit	2nd Digit	3rd Digit	Multiplier	Tolerance
0 Black	**0** Black	**0** Black	**1** Black	
1 Brown	**1** Brown	**1** Brown	**10** Brown	**1%** Brown
2 Red	**2** Red	**2** Red	**100** Red	**2%** Red
3 Orange	**3** Orange	**3** Orange	**1000** Orange	
4 Yellow	**4** Yellow	**4** Yellow	**10000** Yellow	
5 Green	**5** Green	**5** Green	**100000** Green	
6 Blue	**6** Blue	**6** Blue	**1000000** Blue	
7 Violet	**7** Violet	**7** Violet		
8 Grey	**8** Grey	**8** Grey	**0.1** Gold	**5%** Gold
9 White	**9** White	**9** White	**0.01** Silver	**10%** Silver

5 - band code   47 kΩ ± 1 %

4	7	0	00	± 1 %

100 ohms	**1K ohms**	**1 MEG**
Brown/Black/Brown/Gold	Brown/Black/Red/Gold	Brown/Black/Green/Gold
300 ohms	**10K ohms**	
Orange/Orange/Brown/Gold	Brown/Black/Orange/Gold	

Step-by-Step Instruction

STEP 1: Place and solder **IC** into place

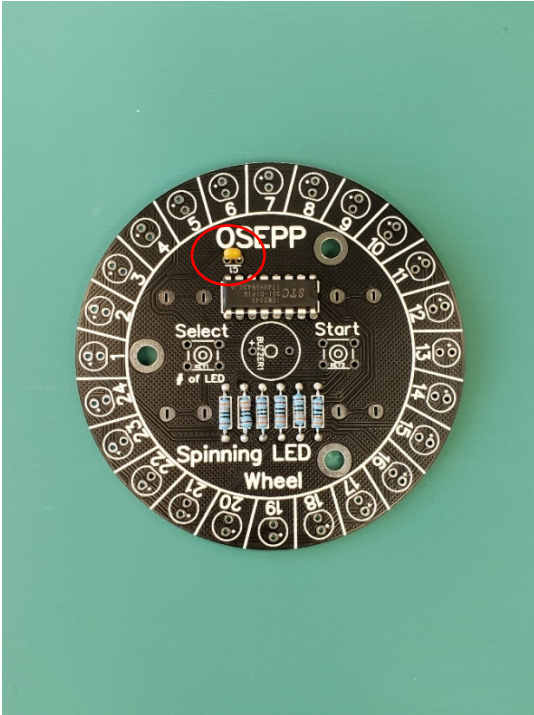- Match the 'notch' on the IC to the notch on the PCB silkscreen image.

STEP 2: Place and solder the resistors into place.

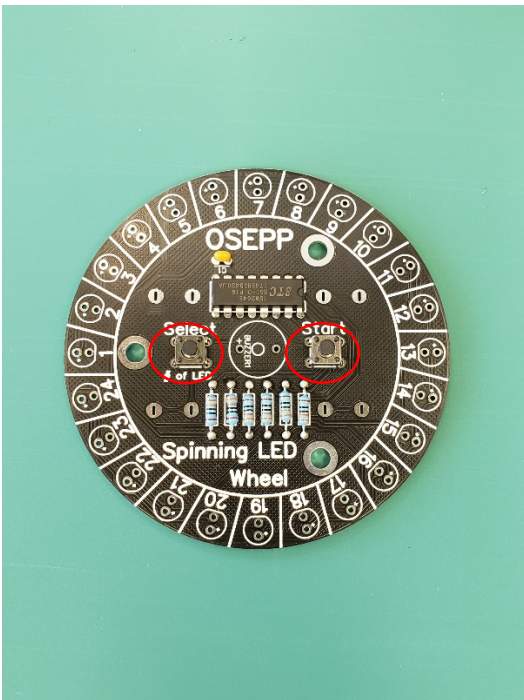- There is no polarity with the resistors

Step 3: Place and solder the **capacitor** in place.
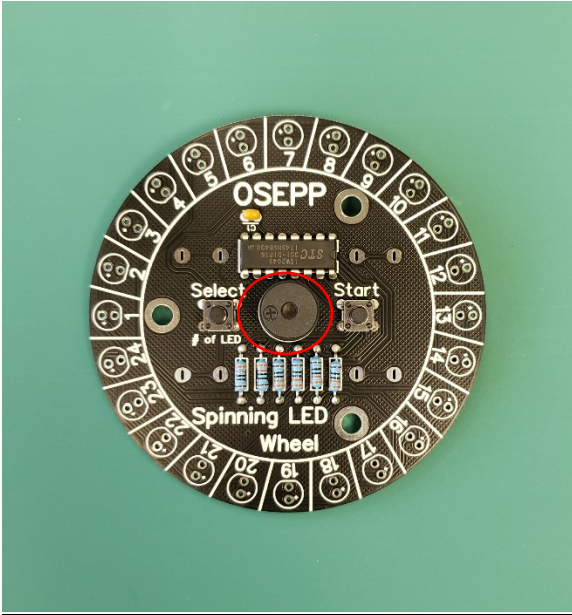
- There is no polarity with the capacitor.

Step 4: Place and solder the **mini switches** into place.

- There is no polarity with the mini switches.

Step 5: Place and solder the buzzer.

- Watch for polarity. Refer to the under side of the buzzer for polarity label.

Step 6: Place and solder the **LEDs (x24)** 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.
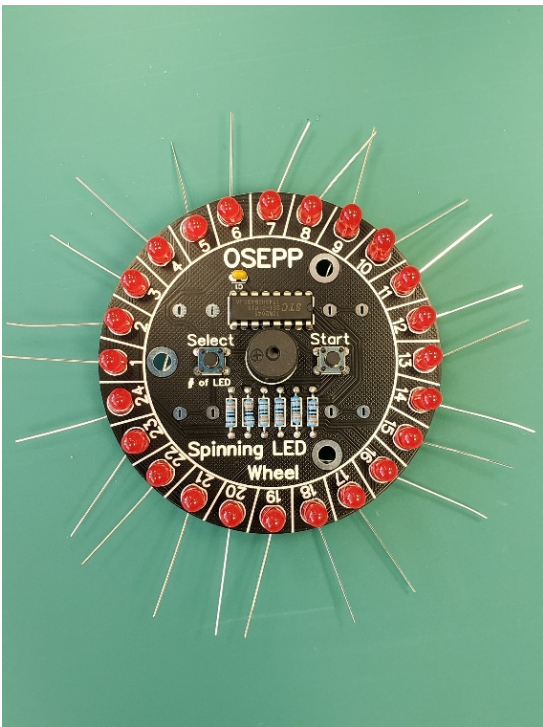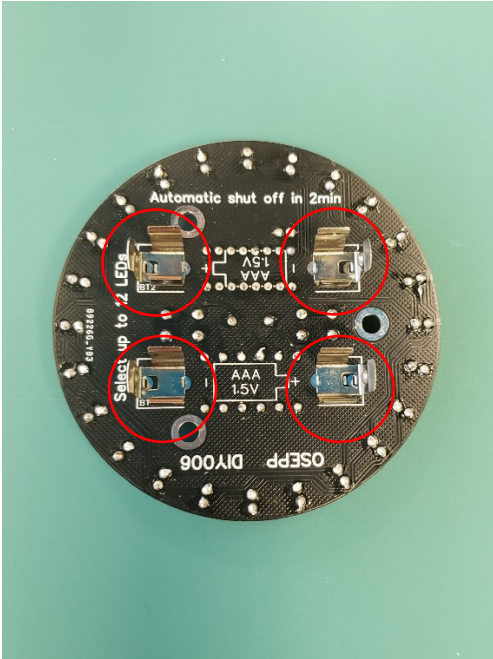
Step 7: Place and solder the **battery clips (x4)** into place.

- Please refer to the image below for battery clip placement.

Step 13: Finished image reference