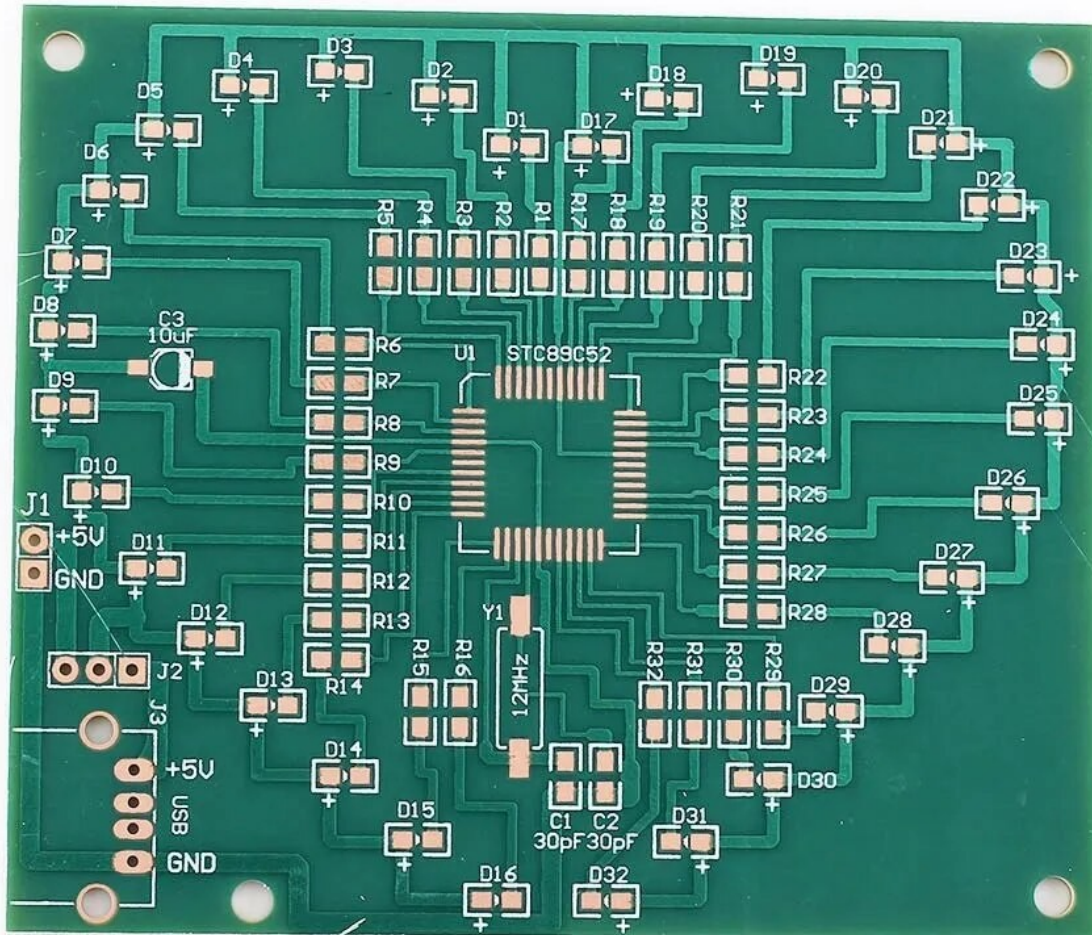
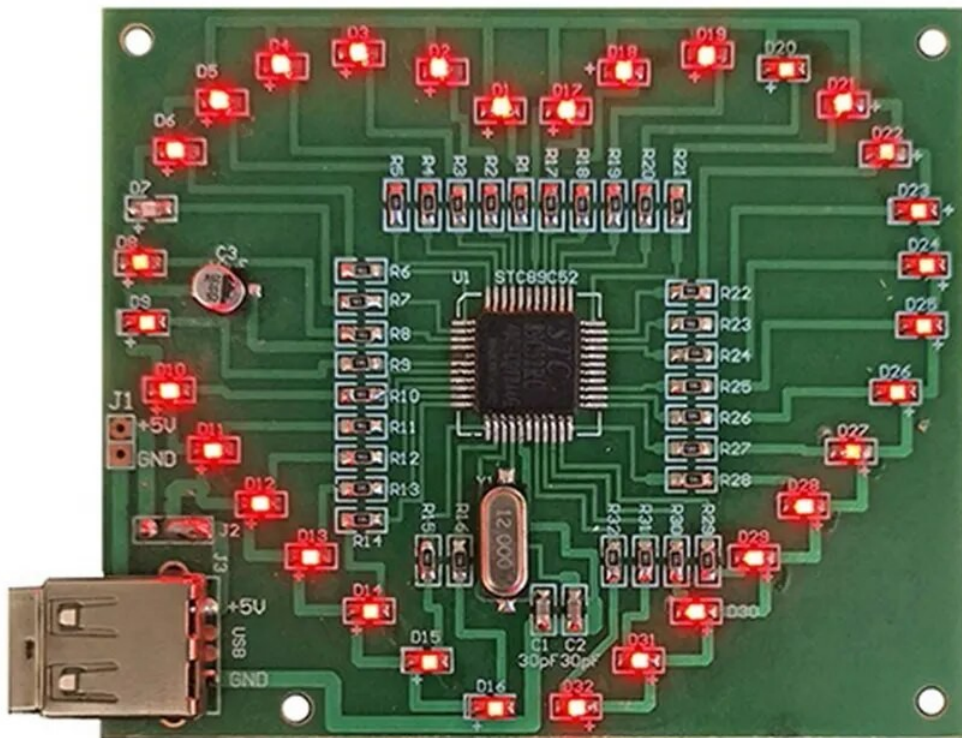


TS3543 SMD LED Heart Soldering Kit Instructions

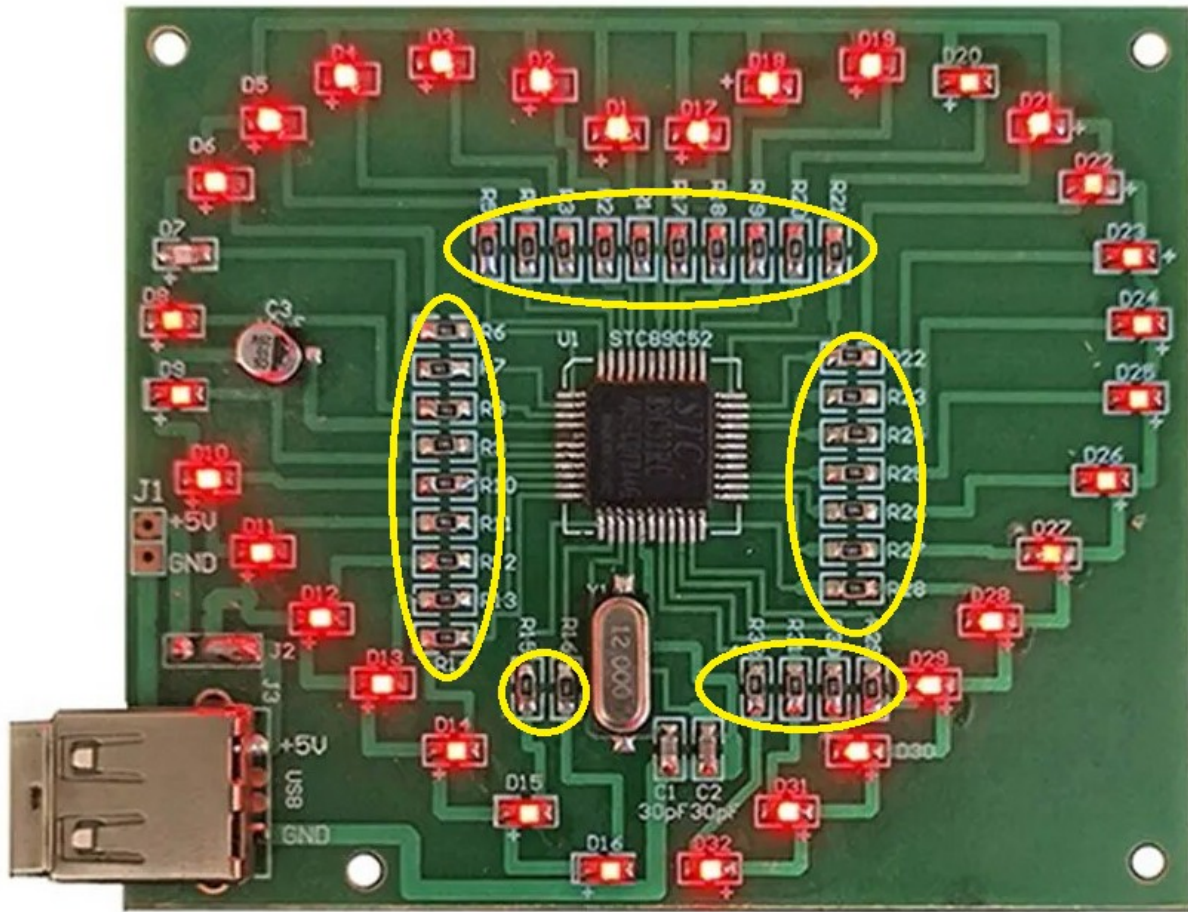
Parts List:

Component	PCB Silk Screen	Parameter	Quantity
SMD 0805 Resistor	R1-R32	560ohm	32
SMD 0805 LED	D1-D32	Red	32
SMD 0805 Capacitor	C1,C2	30pF	2
SMD Electrolytic Capacitor	C3	10uF	1
STC89C51RC	U1	LQFP-44	1
SMD Crystal Oscillator	Y1	8MHz	1
XH2.54-2P Socket	J1	2.54mm	1
XH2.54-2P Cable	J1	2.54mm	1
Male Pin 3Pin	J2	2.54mm	1
Jump Cap	J2	2.54mm	1
USB Female Socket	J3		1
USB Cable		50cm	1
PCB		84*72*1.3mm	1

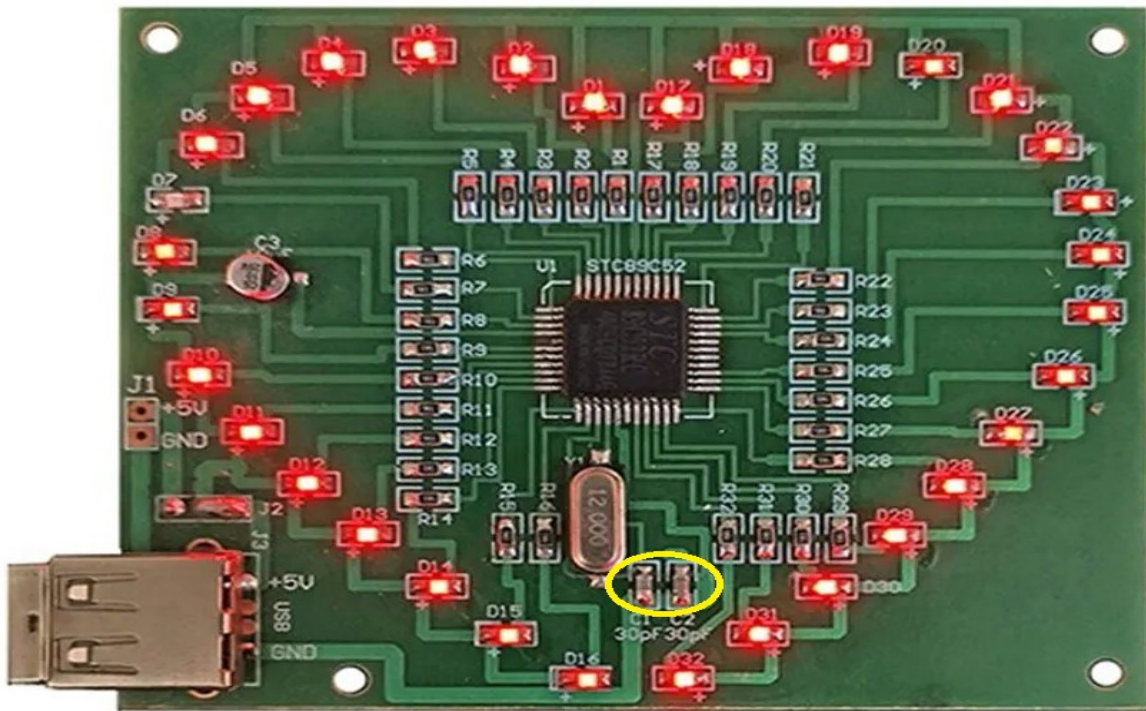




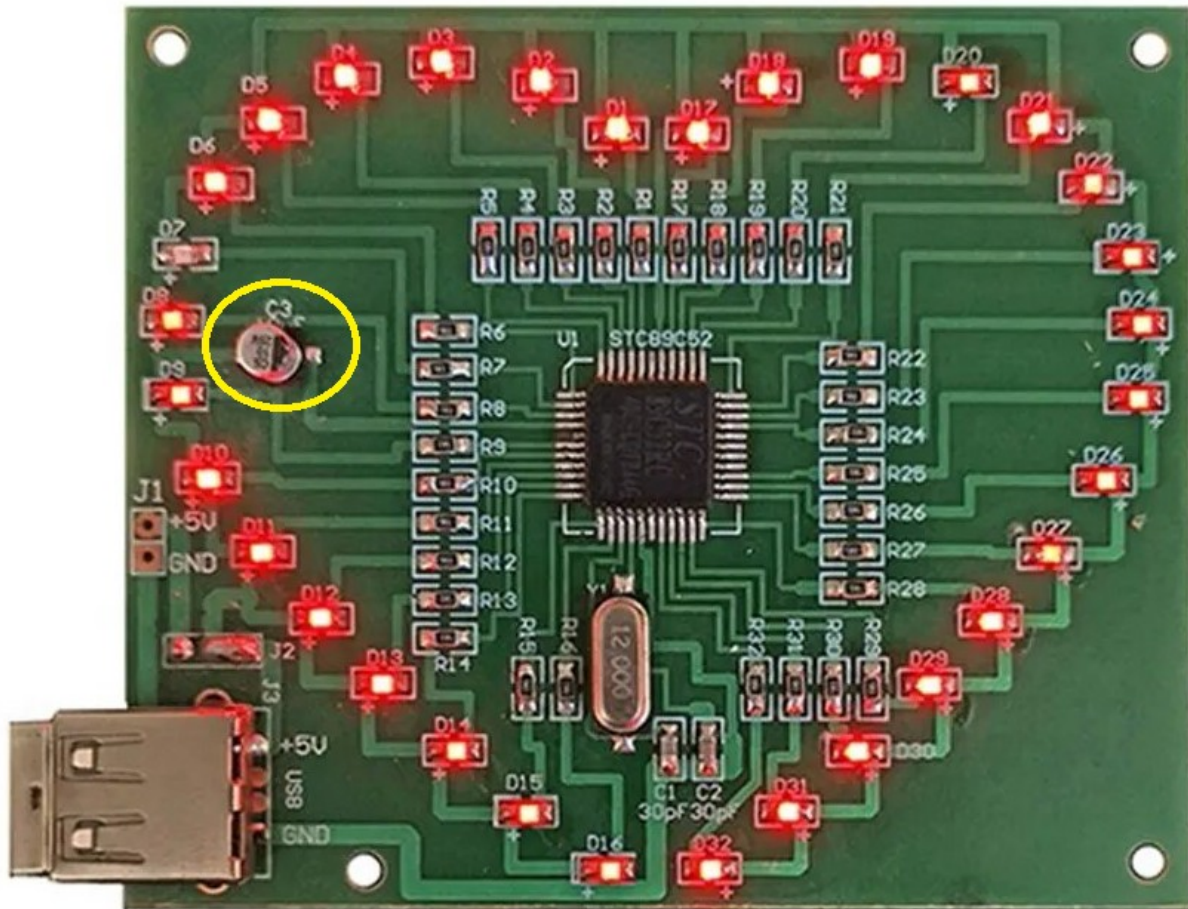
Assembly Instructions:



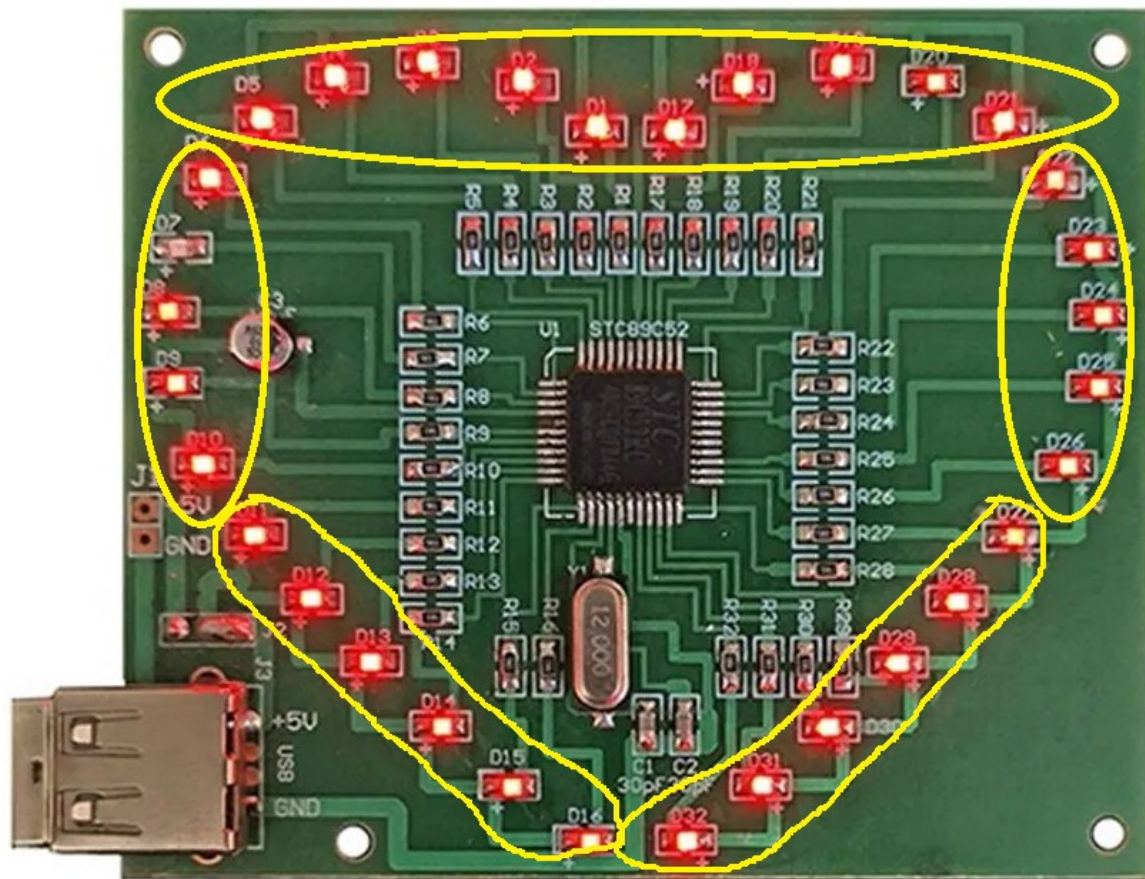
1. Solder the 560 Ohm SMD Resistors into locations R1 to R32 marked 561. Polarity does not matter.



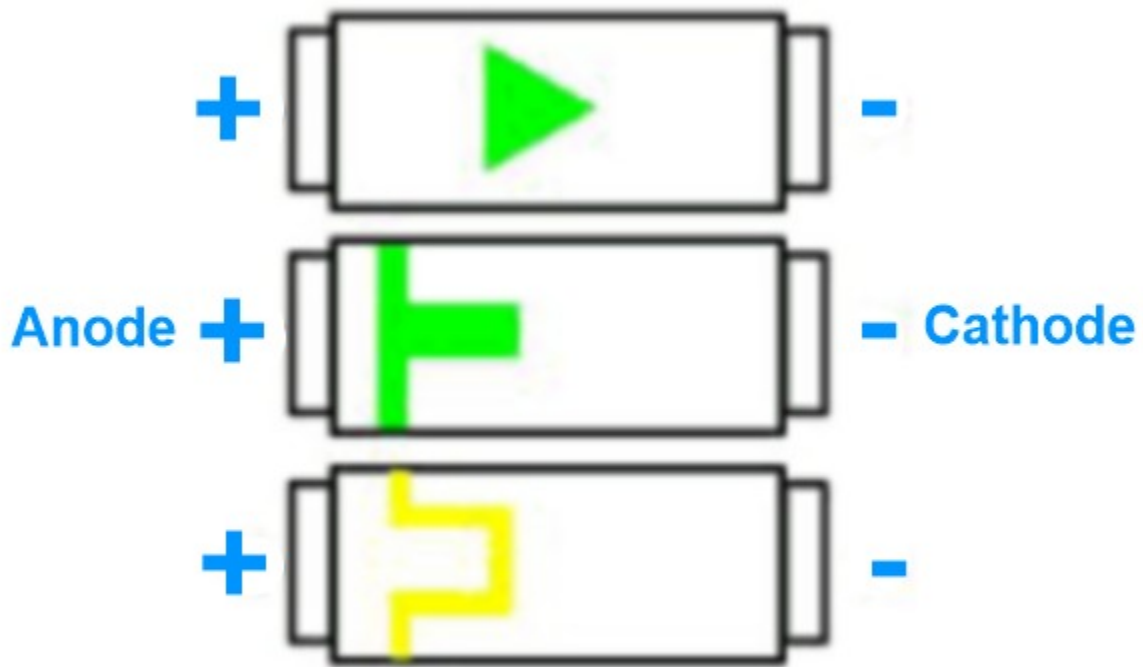
2. Solder the 30pf SMD Capacitors into locations C1 and C2 marked 300. Polarity does not matter.



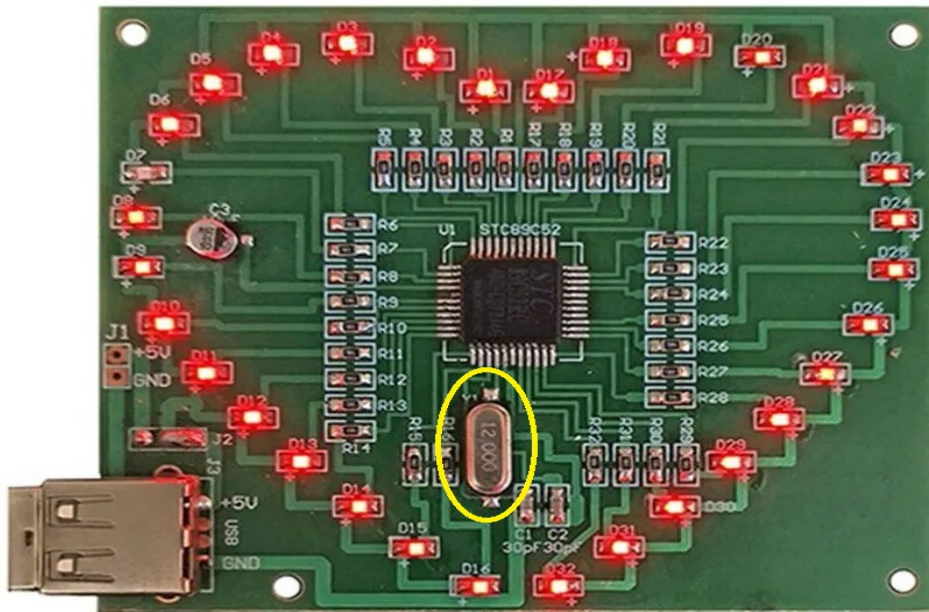
3. Solder the 10uF SMD Capacitor into location C3. Pay attention to the polarity so the + side is in the correct location according to the silkscreen on the PCB.



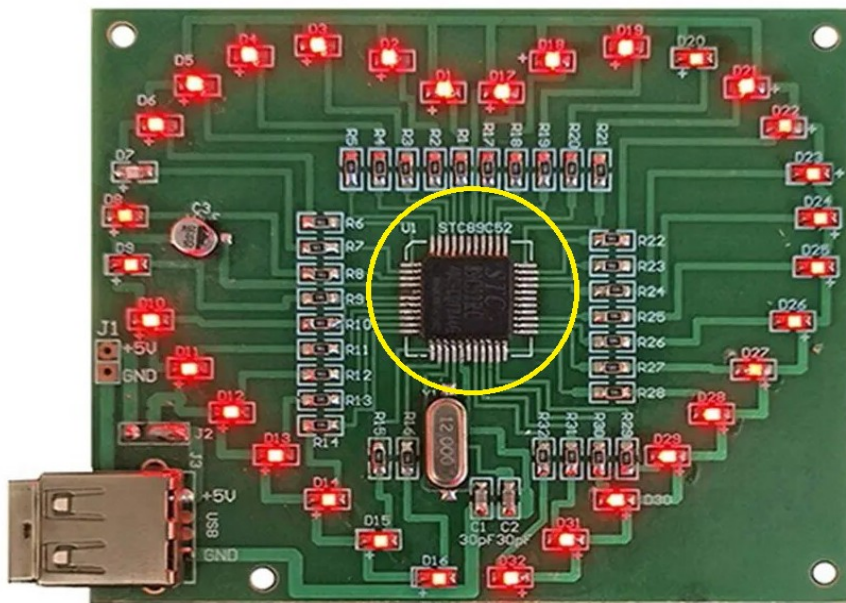
SMD LED Polarity indicators on underside of LED



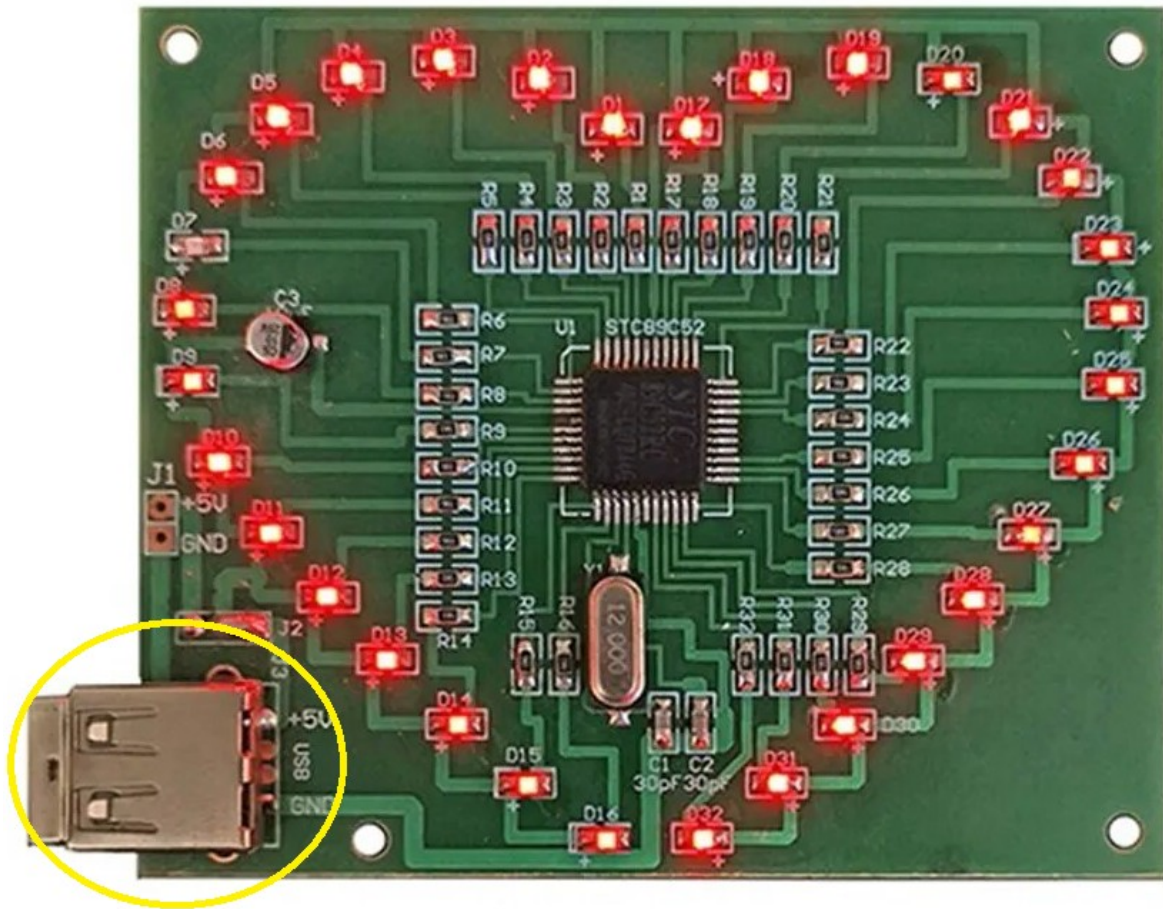
4. Solder the SMD LEDs into the locations D1 to D32. Pay attention to the polarity and place the positive side where the + is marked on the board.



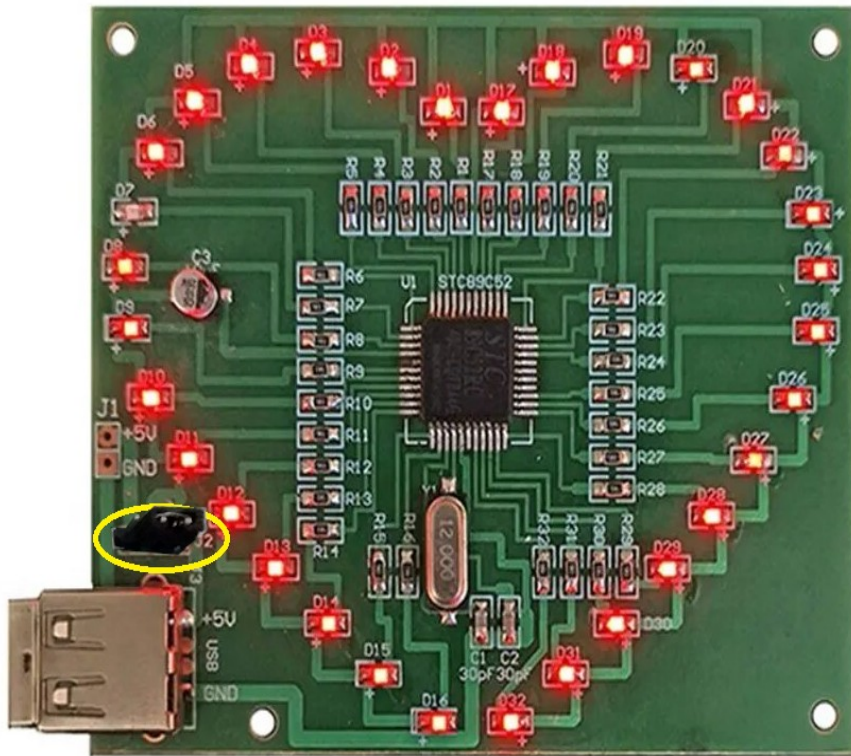
5. Solder the crystal oscillator into place. Polarity does not matter.



6. Solder the IC Chip into position. Make sure the dot at the corner of the chip matches the notch marking on the circuit board.



7. Solder the USB port into place.



8. Solder the 3 Pin Header to J2



9. Place the black plastic header jumper over the right 2 pins.

10. (Optional) Solder the 2 Pin Header to J1 for 5V and GND Power lines if not using USB for power.

11. Congratulations! Your board is complete. Plug in the USB cable to power your SMD LED Heart or (optional) you can connect a 5 volt power supply to the + and – connections directly.