

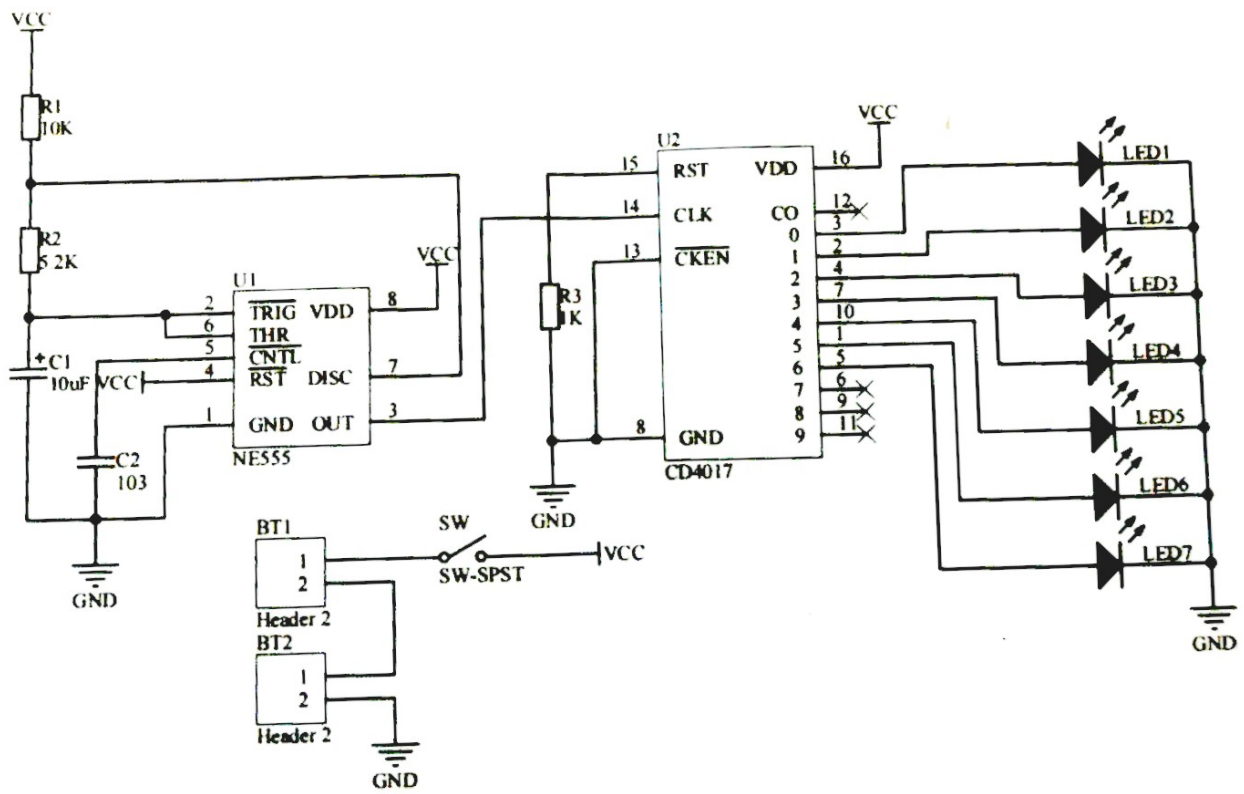
Necessary tools:

Wire Cutters: we recommend [PGC-TR25](#) they are sharp and light
Twizzers: we recommend [PGC-00SA](#)
Soldering iron: [CHN-SLD802](#) is budgeted solution, [SLD-FAST-75W](#) is professional solution
Soldering wire: we recommend [Solder-Wire-SAC0307-0-8](#)

General tips for soldering:

1. Switch On the soldering iron, setup the working temperature to 350 C. Wait until the Soldering Iron reach this temperature – there is LED indicator which will pulse when the temperature is reach.
2. Before soldering clean the Soldering tip with wet sponge from the black resedues.
3. Never touch the heated soldering tip or body.
4. Do not leave the Soldering Iron unattended.
5. Be careful to not touch cables, table, cloths with the soldering iron heated body or tip.
6. Place the electronic component on it's place, watch out if there is polarity.
7. Touch the component pad which you want to solder and wait 3-4 seconds to heat up.
8. Feed a little from the soldering wire until the component lead is flooded with tin and it's shinny and glossy.
9. If the soldering is not shinny but dull please re-solder with colophony.

AIRPLANE schematic:



Components without polarity:

R1 10 K BROWN, BLACK, BLACK, RED

R2 5.1 K GREEN, BROWN, BLACK, BROWN

R3 1 K BROWN BLACK BLACK BROWN

C2 10 NF (103) brown disk

Components with polarity:

SW - power switch, follow the silkscreen

C1 10 uF the white line on the body should match the white mark on the silkscreen

LED1, LED4, LED7 – red LED 3mm, the longer leg should be placed in “+” silkscreen mark

LED2, LED3 - green LED 3mm, the longer leg should be placed in “+” silkscreen mark

LED5, LED6 – yellow LED 3mm, the longer leg should be placed in “+” silkscreen mark

U1 8 pin socket has notch which should follow the silkscreen. NE555 IC dot should match the socket notch

U2 16 pin socket has notch which should follow the silkscreen. CD4017 IC dot should match the socket notch

Battery connectors should be soldered following the silkscreen

BT1 CR1220 battery should be inserted with + sign **upside**

BT2 CR1220 battery should be inserted with + sign **downside**

