

## Tools you need:

- ①Iron (30W)
- ②Solder wire
- ③Multimeter
- ④Tweezers
- ⑤Wire cutters

## Precautions::

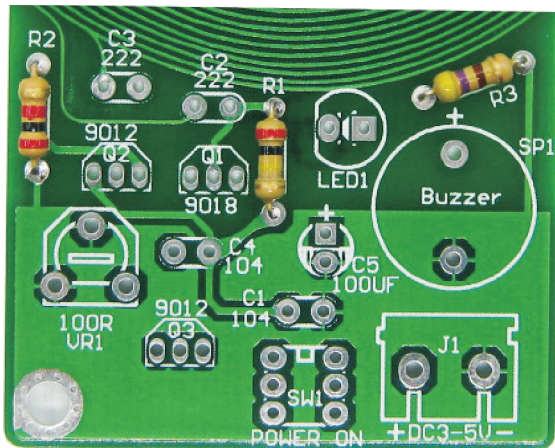
- ①Check part values & quantities against part list
- ②Always meter resistor values before soldering
- ③Understand all part polarities and orientations

## MDS-60 Metal detector kit instructions

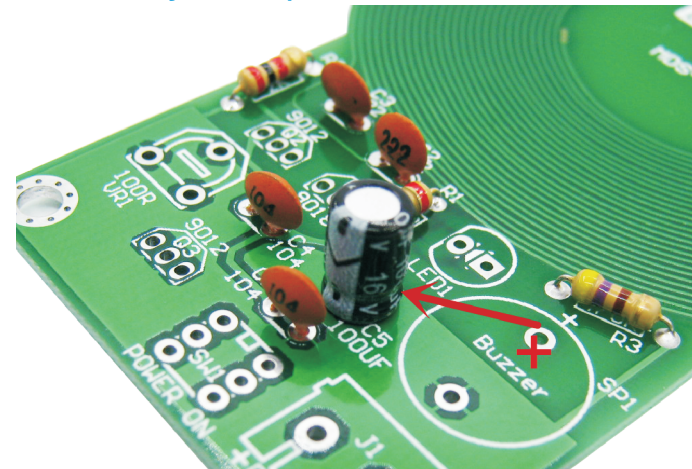
Rev. 1.0      October 17, 2017      Produced by YiQi

### 1. Install RES:

R1=200KR.R2=2K.R3=470R

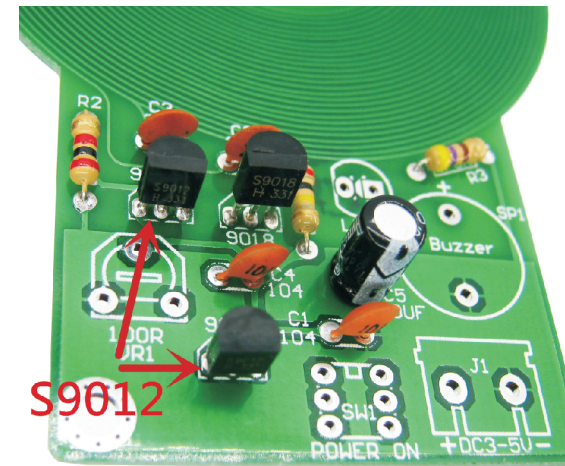


### 2. Install CAP:C1.C4=104pF .C2.C3=222pF. C5=100uF.Notice that the positive electrode of electrolytic capacitor can not be reversed



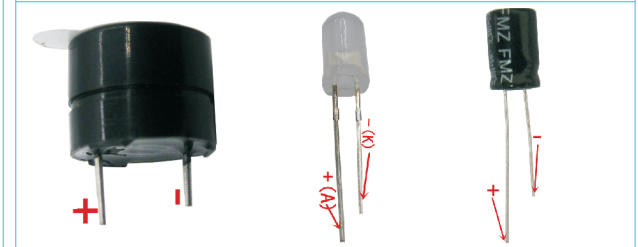
### 3. Install Triode :

Q1=S9018.    Q2.Q3=S9012.



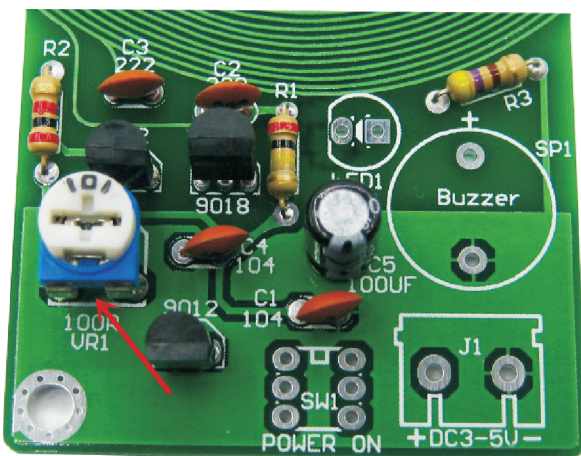
### Warning

Light-emitting diode and electrolytic capacitor the longer pin is the anode it should be installed on the rectangle pad of PCB

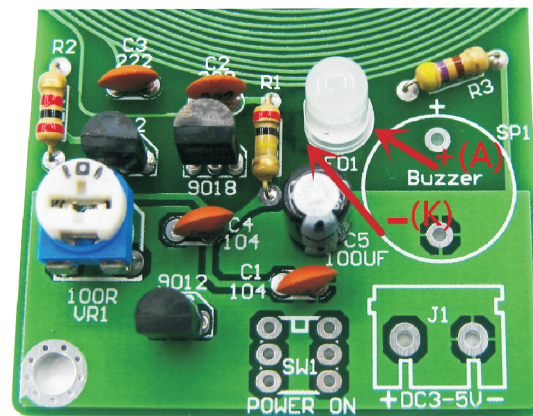


### 4. Install ADJ-RES:

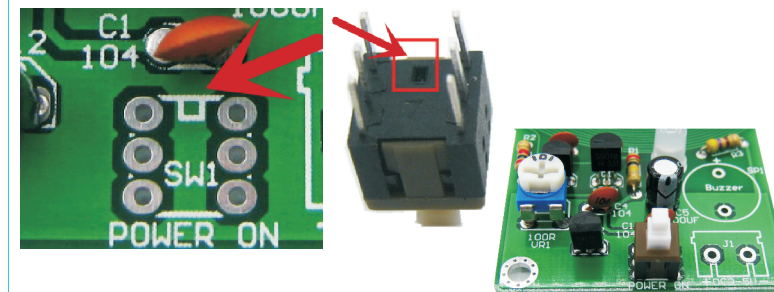
VR1=100R.



### 5. Install LED:Pay attention to the direction of LED The long foot is the positive pole.

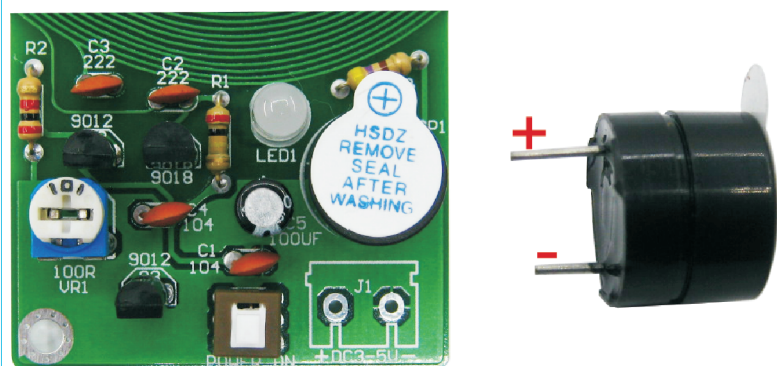


### 6. Install Power switch:Pay attention to the installation direction of the switch

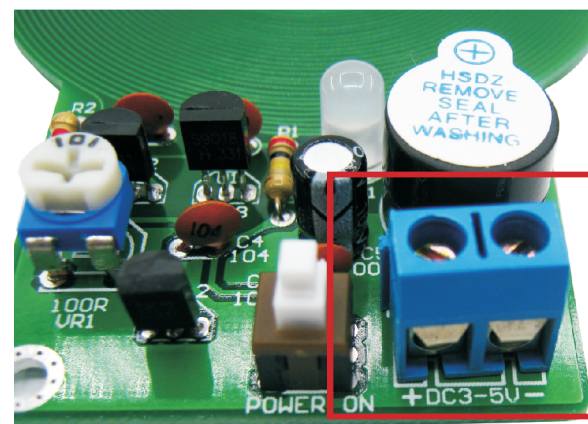


### 7. Install Buzzer:

Pay attention to installation direction

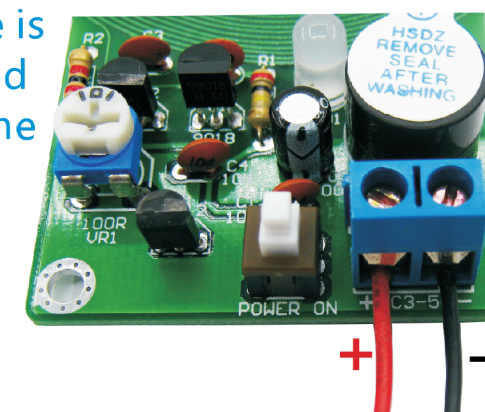


### 8. Install battery terminals



### 9. Battery box wiring:

Connect the red line and black line of the purchased battery box to the terminal The red line is positive, and the black line is negative

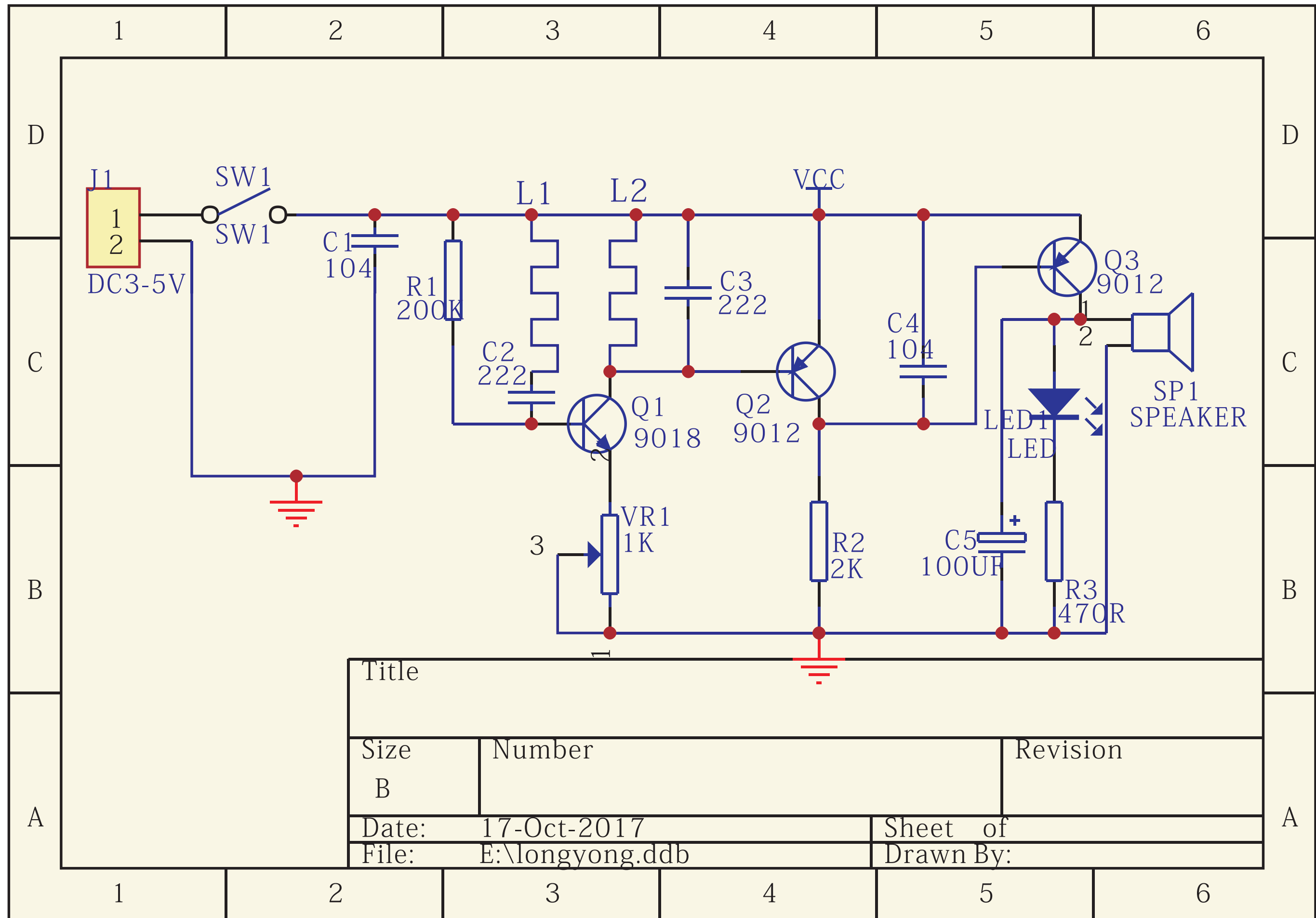


### MDS-60 Metal detector component list

NO.	Name	Parameter	QTY
R3	RES	470R	1
R2	RES	2K	1
R1	RES	200K	1
VR1	ADJ-RES	100R	1
C2, C3	CAP	222P	2
C1, C4	CAP	104P	2
C5	E-CAP	100UF	1
LED1	LED	5mm Red	1
Q2, Q3	Triode	S9012	2
Q1	Triode	S9018	1
SW1	Power SW	6P 6*5	1
SP1	Buzzer	9*12	1
J1	Power-Socket	KF301-2	1
	PCB	MDS-60	1
Choose	Battery box	AA1. 5V*3	1

Test:The machine is powered by 3 to 5V direct current and connected to the power supply,Turn on the power switch, LED bright, adjust potentiometer make LED not bright, potentiometer affect detection distance, the machine detection distance is less than 6 centimeters,detect object size and environmental impact detection distance





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