

TI REVERSE ENGINEERING ONLINE CHALLENGE

TEAM : 21021Z SPEED BOT

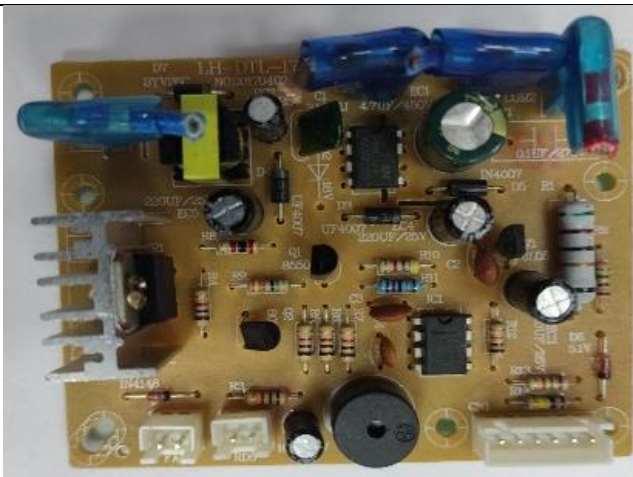
Krasnodarsky region, Sochi, Gagarina street, 71

The 2 kW Aceline CC-2000 electric hotplate has a glass-ceramic surface and one burner with a diameter of 18 cm. The model is equipped with push-button control, a timer and an overheat cut-out option, which contributes to safe use. Convenient carrying handles on the sides.

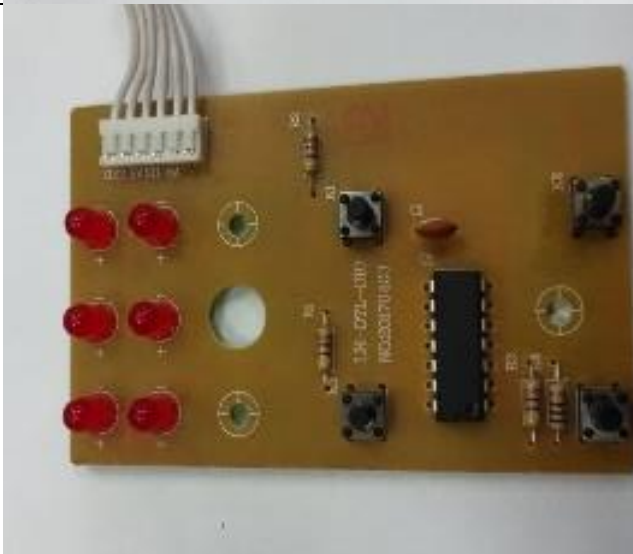


We chose this device for study by two reasons.

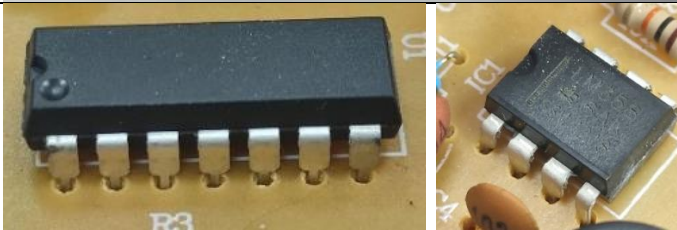
- 1) This device is out of order
- 2) It has incorporates touch sensors



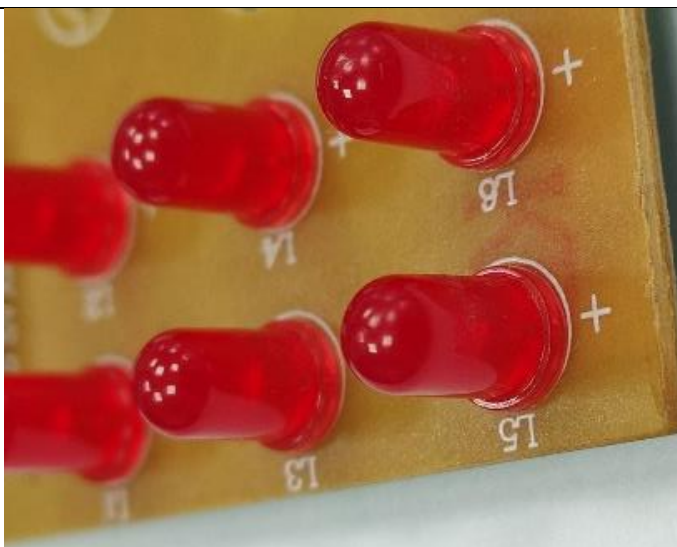
Power board



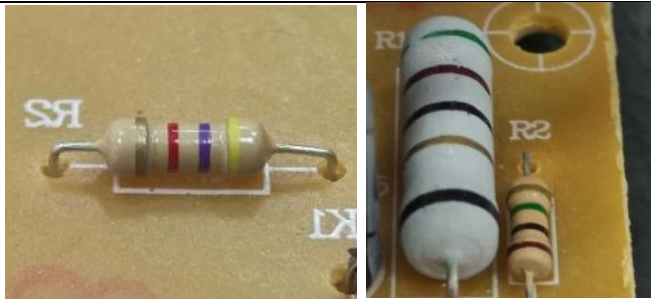
Control board



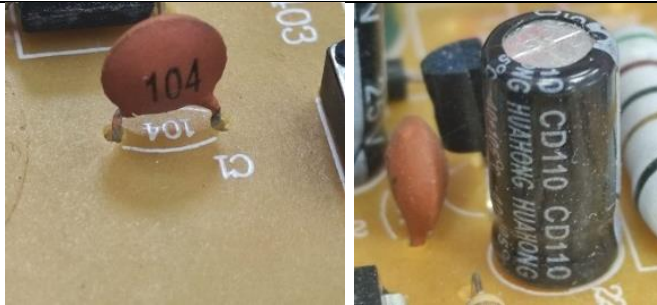
Microcomputer.
It executes its
nested program.



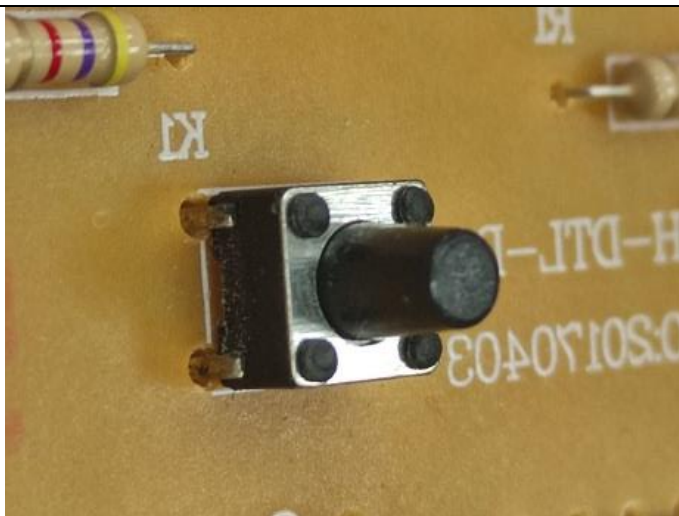
Red LEDs.
Signal is applied.
It's work.



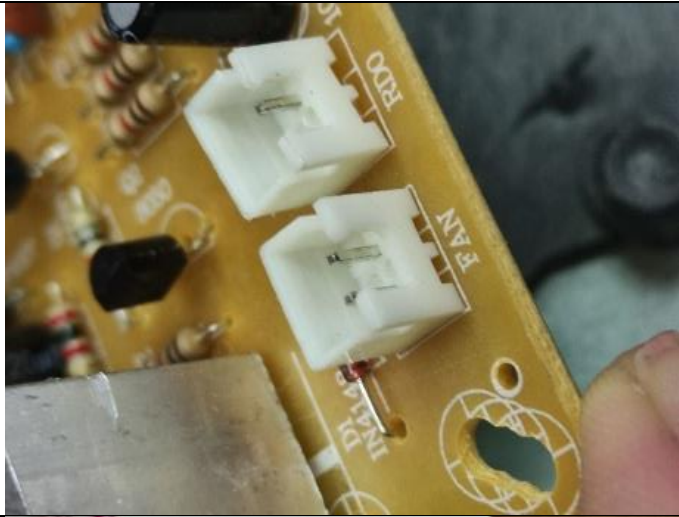
Resistor.
It does active resistance to electric current.



Capacitor.
It accumulates excess electricity, and then evenly distributes the accumulated excess, prevents burnout.



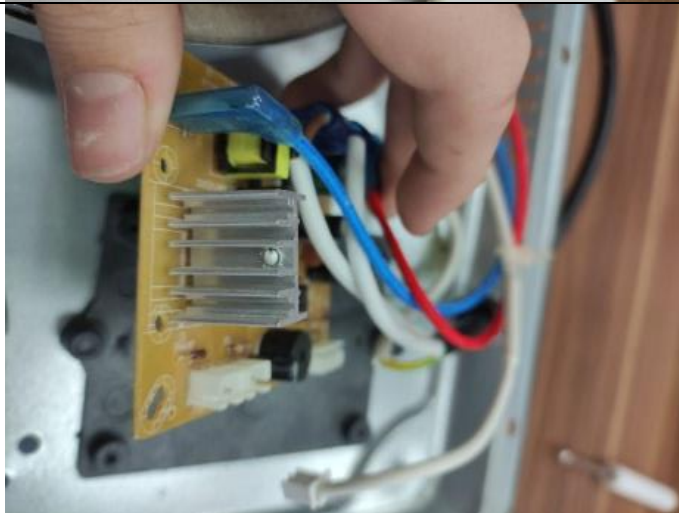
This sensor reads the pressing, if any, gives a signal.



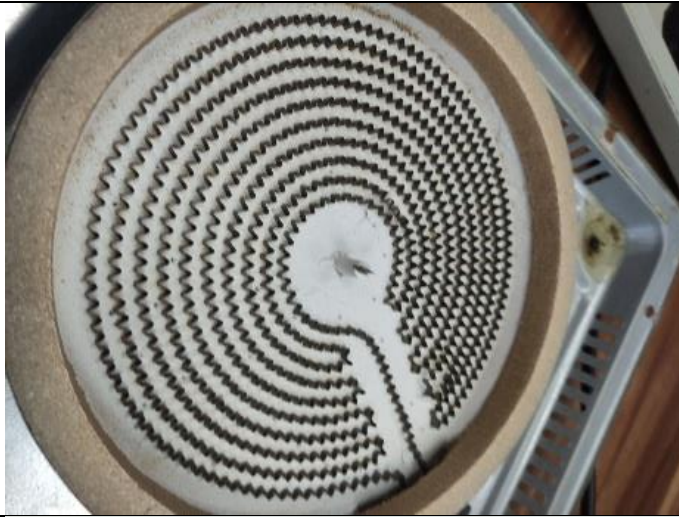
Connector for wires. It receives and transmits electrical current, a signal.



Data bus. It used to transfer data between boards



Radiator. A device is for dissipating heat in the air.



Heating element.



Propeller.
It spins and cools
the surface

Conclusion:

We have figured out how it works for Aceline CC-2000 electric hotplate.

User click on the sensor.

The signal is sent to the microcomputer.

The microcomputer processes the received signal.

The LED turns on and a signal is sent to the power board.

Other microcomputers turn on the heating element at a certain power depending on the selected mode

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