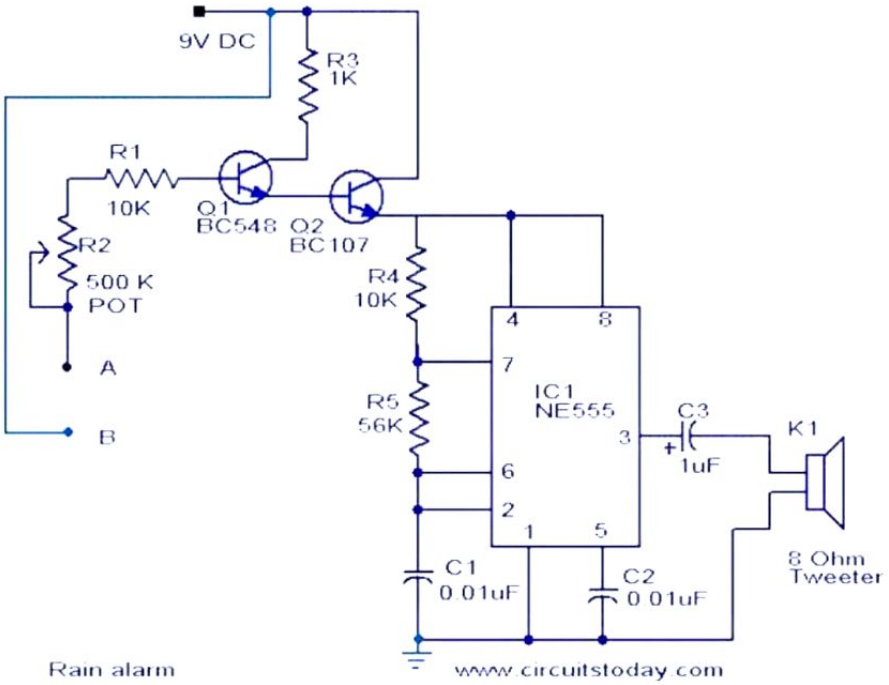
# Description.

Here is a simple rain alarm circuit that produces an audible alarm when ever rain falls. The rain detector circuit is based on two transistors (Q1 & Q2) and a NE555IC (IC1). The two transistors are wired as a switch which goes on when the base of Q1 is shorted to the positive of the supply by the rainwater falling on the sensor. When the transistors are ON power supply is available to the IC1 which is wired as an astable multivibrator. The output of IC1 drives the speaker to produce an alarm.

## Circuit diagram with Parts list.

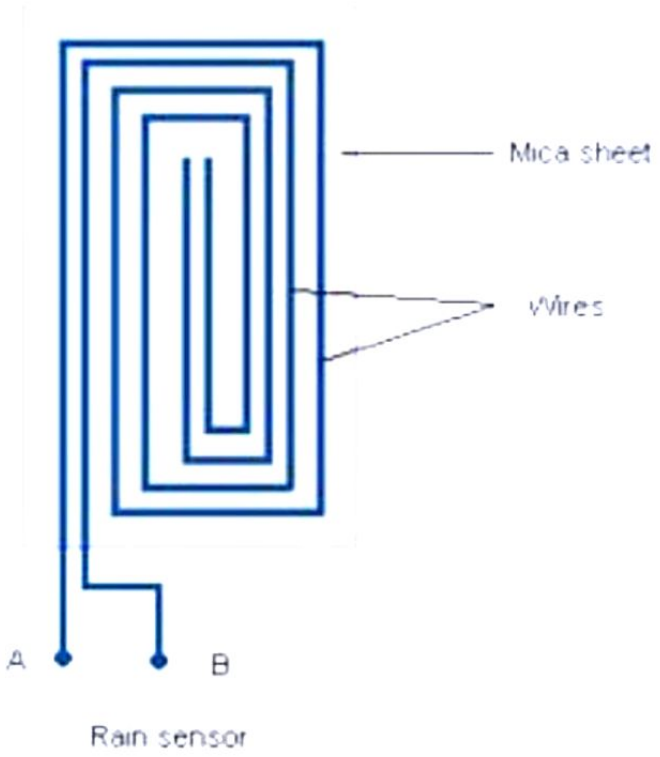



## Notes.

- Assemble the circuit on a good quality PCB or common board.
- For assembling the sensor cut a 2×2 inch mica or plastic sheet. Arrange two single stranded wires (running parallel 2mm close to each other) on the sheet as shown in figure below. Remember the wires have to be non-insulated. Sensor ready.

- Now you can connect the points A&B on the sensor to corresponding points A&B on the circuit.
- POT R2 can be used to adjust the sensitivity.
- To test the circuit, make all connections and power up.Place a drop of water on the sensor so that two wires become shorted through water. Now the alarm starts sounding. If not adjust R2 to get the alarm sounding.
- Use a 9v battery or a 9V regulated DC supply for powering the circuit.
- Do not connect speakers less than8 Ohm impedance as load. It will damage the IC.
- A piezo buzzer can be also used instead of the speaker.

## Sensor schematic.




Rain sensor

**Note:-** We have recently developed a fully functional **Water Level Controller using 8051 Microcontroller**. This water level controller monitors the level of the over head tank and automatically switches on the water pump when ever the level goes below a preset limit. You may try the circuit!