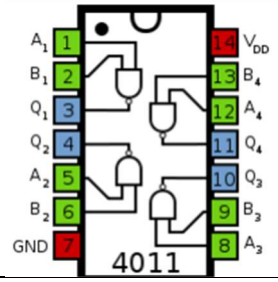
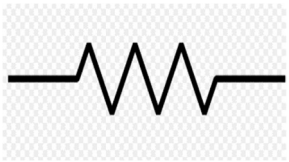
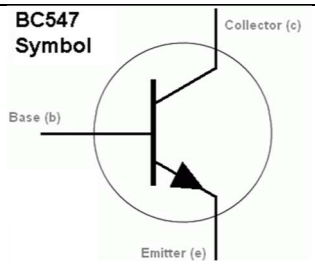
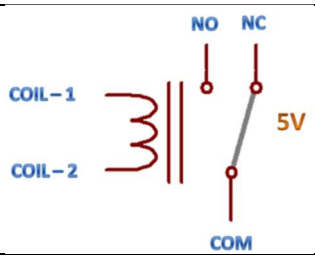
INTRODUCTION

1- The project is based on the concept of S-R flip-flop which is demonstrated using NAND gate IC CD 4011.

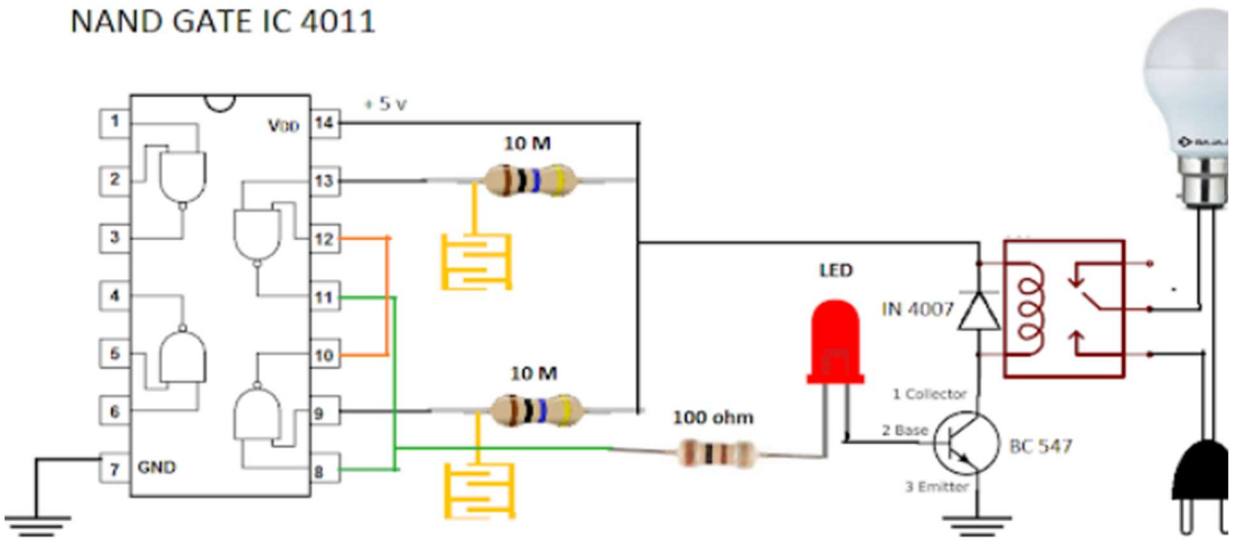
2- A touch switch enables us to control a circuit by simply touching the directed wires/plates.

3- IC 4011 CMOS IC is used in regard of the fact that it is highly sensitive and require a very low current for controlling its gates.

LIST OF COMPONENE AND SYMBOLS

SR.NO	Element	Symbol	Function of component
1-	CD 4011 CMOS IC		The 4011 has 4 separate, 2 input NAND gates which we can use independently. The 4011 is a member of the 4000 series CMOS range.
2-	2 Resistor of 10M and a resistor of 100ohm		Responsible for dissipating power in the form of heat.
4-	Transistor BC 547		NPN transistor used for amplification and switching purposes.
5-	Relay of 5V		An electronic mechanical component that functions as a switch.

INTEGRATED CIRCUIT DIAGRAM



WORKING

1- The project “Touch Switch” is built around the NAND gate IC CD 4011 and transistor BC 547.

2- When someone touches the plate 1 connected between pin I3 and ground RS flip-flops comprises two gates is set.

3- The resulting output at pin I1 energies the relay driver via transistor which in turn switches on the load operatimg on mains.

4- When someone touches the plate 2 connected between pin 9 and ground RS flip-flop is reset.

5- The resulting output at pin I1 of gate de-energies the relay via relay driver transistor which in turn switches off the load operating on mains.