Aim:*To design automatic led chaser (consisting of 6 led's)to generate teo patterns which can be toggled with switch*

A.pattern 1-led chaser

B.pattern 2- even,odd led's

Hardware components:

1. ***Arduino UNO ×1***
2. ***5mm led ×6***
3. ***Breadboard×1***
4. ***Jumper wires***
5. ***Switch×1***

Theory: In this experiment we have done coding to blink LED , which is held together on the breadboard.

Learning and Observations: The coding is done on computer from which the instructions are given to the Arduino Uno board . Arduino is a single board microcontroller meant to make the application more accessible which are interactive objects and its surroundings.

Procedure:

- ***Take 6 led of different colours.***
- ***Take one switch .***
- ***Connect the cathode end of all led's to the GND pin of arduino.***
- ***Connect the anode pin of all led's with each resistor connected to the end.***
- ***Now connect the resistor ent to pins of arduino.***
- ***And connect switch with circuit.***
- ***Do all connections same as circuit diagram.***

Problems of trouble shooting:

1. ***The incorrect coding might cause problems in the working of hardware .***
2. ***Hardware should be correctly fitted on the breadboard or they might get fuse or damaged.***
3. ***Arduino wire must be checked if they are losse or not and the ports should be properly cleaned before using they might cause problem in program.***

Precautions:

1. ***The coding done on the software should be correct in every manner.All the errors should be avoided i.e. syntax logical errors etc.***
2. ***All the wires and elements should be connected tightly and according to the coding done on system.***
3. ***Positive and negative terminals should be put in correct order.***

Learning outcomes: from this experiment we have learn how to code in the software this project was the piller for the upcoming project .