**Line Follwer Circuit Explanation**

The whole **arduino line follower robot** can be divided into 3 sections: sensor section, control section and driver section.

**Sensor section:**

This section contains IR diodes, potentiometer, Comparator (Op-Amp) and LED’s. Potentiometer is used for setting reference voltage at comparator’s one terminal and IR sensors are used to sense the line and provide a change in voltage at comparator’s second terminal. Then comparator compares both voltages and generates a digital signal at output. Here in this **line follower circuit** we have used two comparator for two sensors. LM 358 is used as comparator. LM358 has inbuilt two low noise Op-amps.

**Control Section:**

Arduino Pro Mini is used for controlling whole the process of line follower robot. The outputs of comparators are connected to digital pin number 2 and 3 of arduino. Arduino read these signals and send commands to driver circuit to drive line follower.

**Driver section:**

Driver section consists motor driver and two DC motors. Motor driver is used for driving motors because arduino does not supply enough voltage and current to motor. So we add a motor driver circuit to get enough voltage and current for motor. Arduino sends commands to this motor driver and then it drive motors.