LINE FOLLOWING ROBOT

ABSTRACT

Line Following is one of the most important aspects of robotics. A Line Following Robot is an autonomous robot which is able to follow either a black line that is drawn on the surface consisting of a contrasting color. It is designed to move automatically and follow the line. The robot uses two optical sensors to identify the line, thus assisting the robot to stay on the track. The two sensor makes its movement precise and flexible. The robot is driven by DC gear motors to control the movement of the wheels. The Arduino Uno interface is used to perform and implement algorithms to control the speed of the motors, steering the robot to travel along the line smoothly. This project aims to implement the algorithm and control the movement of the robot by proper tuning of the control parameters and thus achieve better performance. It can be used industrial automated equipment carriers, small household applications, tour guides in museums and other similar applications, etc. Large line follower robots are usually used in industries for assisting the automated production process. They are also used in military applications, human assistance purpose, delivery services etc.

BLOCK DIAGRAM