Today we are in the world of robotics. Knowingly or unknowingly, we have been using different types of robots in our daily life. The project is ”obstacle detection and the avoidance robot” is practically proved by using the Ultrasonic sensor for sensing the robot, Motor Shield Driver for the driving the dc motors, dc motor is used for the movement of the robot with the help of the Adriano Microcontroller.

Obstacle Avoiding CAR is an intelligent device which can automatically sense the obstacle in front of it and avoid them by turning itself in another direction. The application of Obstacle Avoiding CAR is not limited and it is used in most of the military organization now which helps Carry out many risky jobs that cannot be done by any soldiers. Arduino controls the movements of the robot according to received

commands. The robot moves forwards, backwards, left and right, and stops according to the voice commands forward, backward, left, right and stop, respectively.

Obstacle Avoiding Arduino Car has sufficient intelligence to cover the maximum area of provided space. It has an ultrasonic sensor which are used to sense the obstacles coming in between the path of car. It will move in a particular direction and avoid the obstacle which is coming in its path. The main motto of designing such type of car or the technology is that this technology can be used in today’s very fast transportation to avoid the accident generally happen in congested by applying emergency break. If we use this technology in the car or any vehicle, it will automatically sense the obstacles then it will take a side to the available free space. An obstacle may be a living thing or any object.

The main objectives of the project are comprehended as follows:

• The obstacle avoidance Arduino car is able to move around in an unknown environment

without colliding with surrounding objects.

• The car would have the capacity to detect obstacles in its path based on a predetermined

threshold distance.

• After obstacle detection, the car would change its course to a relatively open path by making autonomous decision.

• It would require no external control during its operation.

• It can measure the distance between itself and the surrounding objects in real-time.

• It would be able to operate effectively in unknown environment.

• Obstacle avoiding car-robot can be used in almost all mobile robot navigation systems

• They can be used for household work like automatic vacuum cleaning.

• They can also be used in dangerous environments, where human penetration could be fatal.