

Cedric Camacho
Eco Friendly Robot Car

The aim of this invention was to verify if an automatic glass recycling car with a glass detector sensor would detect broken glass on the floor and then activates a vacuum cleaner to pick the glass up. The advantage of this would be that people and their pets could go to the park, without being hurt with small broken pieces of glass hidden in the grass or on walkways.

My findings provided a new understanding into the characteristics of the sensor I chose. More specifically, there are not any sensors created for this specific application. It was possible to build the robot car with a sensor created to detect transparent objects up to 5.5 meters; however, the evidence of this study suggests that the sensor is not sensitive enough to detect very tiny glass fragments, glass painted, or glass covered with objects.

Further investigation and experimentation into sensors for this specific need is strongly recommended. Potential experiments could be to adjust the sensitivity of the sensor, or to research if a glass has a special type of resonance sound when it is on the ground, and if an ultrasound sensor can detect the sound.

The cost of further investigation would be small as compared with the advantages that could be obtained for parents, schools, workplaces or the city. Medical expenses, workers compensation or insurances could be reduced if the environment was safer.