Development of low cost semi-automatic parallel parking system

ABSTRACT

This project is to develop a low cost semi-automatic system specifically for parallel or side parking. Nowadays, parallel parking is maybe a problem to certain drivers. The system will guide driver in details to manoeuvre their car to a parallel parking lot via graphical LCD operated by microcontroller and ultrasonic sensors. Rotary encoder is employed to provide real time communication of the system to calculate and estimate the trajectory of the car upon parking. The microcontroller is used to sequence the movement of the car by control it using ultrasonic sensor and encoder. This semi-automatic parallel parking system is very useful to help drivers to park at the parallel parking lot as well as it is able to reduce risk of minor accidents occur during side parking. Thus, vehicle damage and loss could be avoided.