Parking Assistance w/ Arduino

Brian Nguyen, Dylan Teehankee, Armin Irvije

Introduction

Driving in any scenario has been shown to be far too dangerous to allow for human error. Cars equipped with driving assistance has proven to reduce car accidents by a notable margin in comparison to cars without driving assistance. In fact, backup cameras became a mandatory requirement for cars manufactured since May 2018 in the United States.

Arduino-Based Parking Assistance

We have developed a proof of concept way of improving automobile safety through the use of an Arduino kit which includes an Arduino control board, LED lights, ultrasonic sensors, and a buzzer.

Implementation

The LED’s light up gradually from green to yellow to red depending on the distance. When the LED reaches the yellow light, the buzzer will start with a small delay. When we hit the first red light, the buzzer will beep at a faster pace. On the final light, the buzzer will make a continuous beep for an indefinite amount of time.