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Mr. Michaud

Electronics

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Final Project Description

For our final project, Jacob and I decided on building a car. The car consist of 4 motors attached to a power source, guided by an Arduino. The car is most prominently controlled by autonomous functions programmed to make it go both forward and backward for a predetermined time. The car also has the ability to manually preform these functions if the user presses one of the two buttons on the breadboard. The car features a potentiometer that when turned gives the ability to turn the car in either direction. The car comes included with two colored LED lights consisting of red and green. The green LED will turn visible when the car moves in a forward direction, and the red will become visible due to a backwards motion. Not only does the red LED turn on when the car is in reverse, but it is accompanied by a beeping noise produced by a piezo to warn others. All around are car seems pretty safe and family friendly.

The car runs on code programmed into the Arduino from the Arduino Program. We have come up with five different functions of movement to help with the robot: forward, reverse, turn left, turn right, and stop. It includes a multiple of sensors programmed into the Arduino with information to gather and react accordingly such as: touch sensor, button sensor, LED, potentiometer, piezo. We were able to integrate these features into our final project from past knowledge and examples provided by Mr. Michaud throughout the term. So in summary, our car is a “mini” car that can go in all directions, stop, alert others of its whereabouts.