Automatic Dashboard Ignition System in Automobile

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Abstract -Most people pull the key from their car these days so the ignition won't drain their batteries. This project is based on not draining the battery. So many of the car drivers were left to turn off the ignition. As soon as we act the absolute weight in the driver's seat, the ignition will only be activated. Otherwise, the ignition system will be off at all times. To perform these tasks we can install a load limiter in the driver's seat that will turn on the ignition once the load limit is crossed. These can be performed with an Arduino UNO and some connecting wires and a load cell, with coding that limits load in the seat.

***Key Words*: Battery management system using dashboard ignition, Mostly in car the ignition will drain the battery**

1. INTRODUCTION

Your dashboard normally contains a few symbols for identifying what is happening in the car such as a fuel indicator, light indicator, seatbelt indicator, and door indicator, among others. If you leave your headlights or dashboard lights on, your battery will drain. As the first thing to check are your lights. Many newer vehicles have headlights designed to turn off after a certain amount of time. If your car doesn't have this feature, your headlights will remain on until you turn them off or until the battery drains completely.

Otherwise, you should take those precautions every time you get out of the car. Before pulling the keys out of the ignition, take a quick glance around, turn off all the electronics, turn off the lights and make sure no interior lights are on. If you park your car at home and leave the keys in the ignition, after a long time you get into your car the battery has no power. It is not a problem if you are in a city if you ask a mechanic or your neighbor's battery for assistance, but if you are living in a village, they can't help you

2. NUMBER OF COMPONENTS

- ARDUINO BOARD

- ARDUINO BOARD CONNECTIONS WIRES

- LED LIGHTS

- LOAD CELL

- WIRES

- BATTERY USED

3. CONSTRUCTION

Our load cells produce an output signal in the millivolt range. We therefore need an amplifier to transform the signal into a level that can be converted into a digital signal and subsequently processed. To achieve this, we utilize an amplifier sensor HX711.HX711 amplifier sensor includes a chip with a 24-bit analog-to-digital conversion capability. The HX711 module amplifies the load cell's low voltage output and sends it to an Arduino via an interface, which then calculates the weight of the load.

Car Dashboard

4. WORKING

An electronic load cell is a device that measures weight and force by converting force into a weak electrical signal at millevolt levels on the output wires. In fact, the load cell is a transducer that converts force into usable electrical signals. load cells are comprised of a metal core surrounded by an array of electrical resistances, which change when force is applied. However, when the force is removed, these resistances return to their original state. This determinant determines the load cell's accuracy and

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quality.

The battery is drained by turning off the dashboard lights and headlights By using this method, when you switch off these lights, the sensor used to turn them off is used to limit the load by using an Arduino board. We placed an Arduino board in the dashboard ignition and added a load limit control coding. When the load limit is reached, the ignition will cut off and when the ignition is on and loading is high, the dashboard ignition will override the load limit. When the load cell sensor senses the load, it transmits the information to the Arduino, which carries the signal to the LCD and projects the weight there. When the Arduino limits the load based on code, it transmits to the ignition system, which shuts it off. The dashboard cuts off ignition to limit the load.

Load Cell

Arduino UNO

CONCLUSION

The Dashboard has been successfully designed dashboard is successfully established with a limit of light blowing By using this method when you left to turn off these lights the sensor Used to turn off the lights The weight sensor will be fixed to the driver seat used to calculate the Weight acted on that seat We fixed the absolute weight in that sensor directly connect to the dashboard to turn on The lights when we act more than the absolute weight light will be turned on act less than the Absolute weight light will be turned off

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