Brakelight

GT Off-Road Racing | Data Acquisition

Param Pithadia

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# Overview

## Introduction

We use one [red brake light](https://www.commandelectronics.com/shop/surface-mount-22-led-tail-light-with-reflex-oval) (red LED and red lens) on the back of the car, connected to the brakes through two [hydraulic brake light switches](https://www.pegasusautoracing.com/productdetails.asp?RecId=1146&utm_source=google&utm_medium=cpc&utm_campaign=3601&gclid=CjwKCAiA44LzBRB-EiwA-jJipGupxgKcW7YcPsHyYyO5n_cYGnxzYTWsWfH0poyU-KA27puF54duwRoCE98QAvD_BwE).

## Point of Contact

Ryan Chen ([rchen390@gatech.edu](mailto:rchen390@gatech.edu)): Created documentation standard

# Hardware Reference

## Circuit

Diagram

Description automatically generated

The brake light will turn on if pressure is detected in either switch, closing the switch and completing the path between the battery and the light, that is why the two brake switches are wired in parallel, and the battery and light are in series. For installing the brake switches, please talk to the breaks lead.

Diagram, schematic

Description automatically generated

We can also include two brake pressure sensors, but that is up to the discretion of the breaks lead.

### Wiring

# Software Theory of Operation

# References

# Revision History

1/7/2021 (Ryan Chen) – This is an example of a revision comment. Removed parts list from references and added Excel template for Bill of Materials. Removed parts list from references and added Excel template for Bill of Materials.

2/22/2021 (Ryan Chen) – Updated automatic lists for template.

2/16/2023 (Param Pithadia) – Added circuit section and hyperlinks for parts.