

Web Controlled Wind Tunnel

Goals

- Allow for Remote Starting, Stopping, and Control of the Wind Tunnel
- Improve Existing Capabilities of the Wind Tunnel
- Create an Interface that is Intuitive and Easy to Use

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Abstract

Currently, the Bradley University Department of Mechanical Engineering has a small research wind tunnel. It is completely manually controlled and operated. Since all functions must be adjusted by hand and there is no digital control mechanisms in place, it is very difficult to get accurate, repeatable results. In addition, this also increases the amount of time required to take measurements with the wind tunnel, and increases the work load for the operator. The mechanical engineering department also would benefit from the ability to operate the wind tunnel system remotely. This would allow not only for easier data acquisition onto a personal computer or laptop for later analysis, but would allow other institutions which do not have access to a wind tunnel the educational experience of operating and collecting data from a real world wind tunnel.

System Block Diagram

