

Market Description:

The proposed system is designed to enhance balancing systems used in wind tunnels, and thus has a targeted market of organizations or individuals who want to enhance the precision or data collection on their wind tunnels. The system is a fixed system which must be installed on the wind tunnel itself and powered electrically. By using sensors, it balances the object in the wind tunnel quickly and measures the forces necessary to achieve the calibrated position, saving a significant amount of setup time. It replaces an old and very manual system using sand as weights which must then be weighed on a scale to know the amount and adds human error, affecting precision.

There is currently no general commercial solution for a self built wind tunnel like this. Since wind tunnels are built in different ways with different sizes and power available, the systems used for measurements can be different and in turn are developed by the makers of the wind tunnel. Commercial wind tunnel vendors may include their own version for their own wind tunnels which may not be adaptable or cost efficient for self-made wind tunnels. This makes our project useful for any wind tunnel which uses the same rod balancing system for for measurements on the object inside, which would enhance precision and the speed of data collection.