Rotating Windmill

A project by Ata Gowani

Project Summary

Description

This project will create a windmill simulation along with air particles that will stimulate the movement in the windmill. The simulation will allow you control the air particles to observe how the rotational velocity of the windmill changes as the air particles are changes.

Importance

This simulation will help predict how windmill will respond to different wind conditions. This could be helpful in understanding what is the best conditions to generate the most productivity from a windmill in terms of energy generated.

Proposal

In this project I plan to have a windmill that will respond to wind particles that'll hit the wings. The wind particles will be generated from a fixed position by the velocity and the number of particles can be changed by the user and the windmill will respond accordingly.

Goals

- Understand and implement collision detection
- Accurately simulation torque and its impact on rotational velocity
- Understand and implement air particle motion

Work Breakdown

Deadline	**Detailed Goals**
Oct. 25th	Finalize project idea and finish project proposal
Nov. 1st	Research topics that are required for the project in depth and decide on what tech stack to use
Nov. 8th	Have a basic project skeleton ready with collision detection
Nov. 15th	Finish air particle module with particle velocity control and implement rotational motion
Nov. 22nd	Clean up code and wrap up
Nov. 23rd	Project due date