**“Tower Defense – Game Proposal”**

November, 2015

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# Introduction

This game is aimed at students following the Massive Open Online Course of Wind Energy of the TU Delft. The aim of the game is to help teach students about the basics of Wind Energy while remaining entertaining. The reason a game is created for this is to help retain more students than the usual low amount of students that manage to finish the course.

## Project Vision

The scope of the project is to introduce the players to the concepts of wind energy and allow them to experiment with different options whilst keeping them entertained.

## Target Audience

The target audience is an educated audience that has around 30 minutes daily maximum to spend on this game. The audience age ranges from late teens to retirement age.

# Detailed Game Description

## Basic concept

Tower Defense advantages:

* Easy to pick up
* Very direct feedback
* Clear game goals
* Due to the simple structure of the concept, features are easily added to complement additional goals. (In this case, education)
* Tower defense games have the important feature that players can provide slightly different solutions to the same problem

## Project Goals

* Create a game that will motivate players to explore the field of wind energy.
* Through gameplay a player should feel intrigued to finish the game.
* Allow players to experiment with the different challenges of designing wind turbines
* The game should introduce the basic factors of wind turbines in such a way that they are clearly conceptualized by the player through the gameplay.

## Objective of the game

The objective of the game is to beat various challenges by designing, managing resources and intelligently putting wind turbines in key locations, through the tower defense mechanics. Player actions include maintaining the wind turbines and adapting them to changing conditions for the purpose of optimization.

## Description of any A.I. planning to be used

* Units will have to follow a set path until they are interacted by the mechanics of the wind turbines or reach the end of that set path
* A weather condition system will be introduced that will vary depending on the setting, in order to teach the player about the different effects on the performance of turbines.

## What is the interactive structure that is being used

The game will have a chapter system which gradually introduces new concepts in order to achieve the desired learning curve.

## How and why is multi-player implemented?

Multiplayer is a common system used in games for the purpose of challenging each other through competition. In this respect, players are encouraged to improve and figure out ways to overcome the limitations of their own designs.

## How difficult is the game?

The games is required to be easy in the introductory part, and then it would scale based on the learning objectives.

In any case, that a player would find himself lost or stuck, help will be available through an educational system, which will provide information on different topics.

# Product Design Aspects

## Technology Used

As it can be seen from the statistics in figure 1 about the platforms that the MOOC users utilize, provided by the commissioner, the majority of people in our target audience are using web browsers through desktops.

## Interaction sounds and theme music

We will use audio cues to give the user feedback about his actions and the state of the game and additionally we will have music to create an engaging atmosphere.

## On-Screen Interface

The user interface shouldn’t interrupt the flow of the game experience that a user will be having. If any, it should promote it.