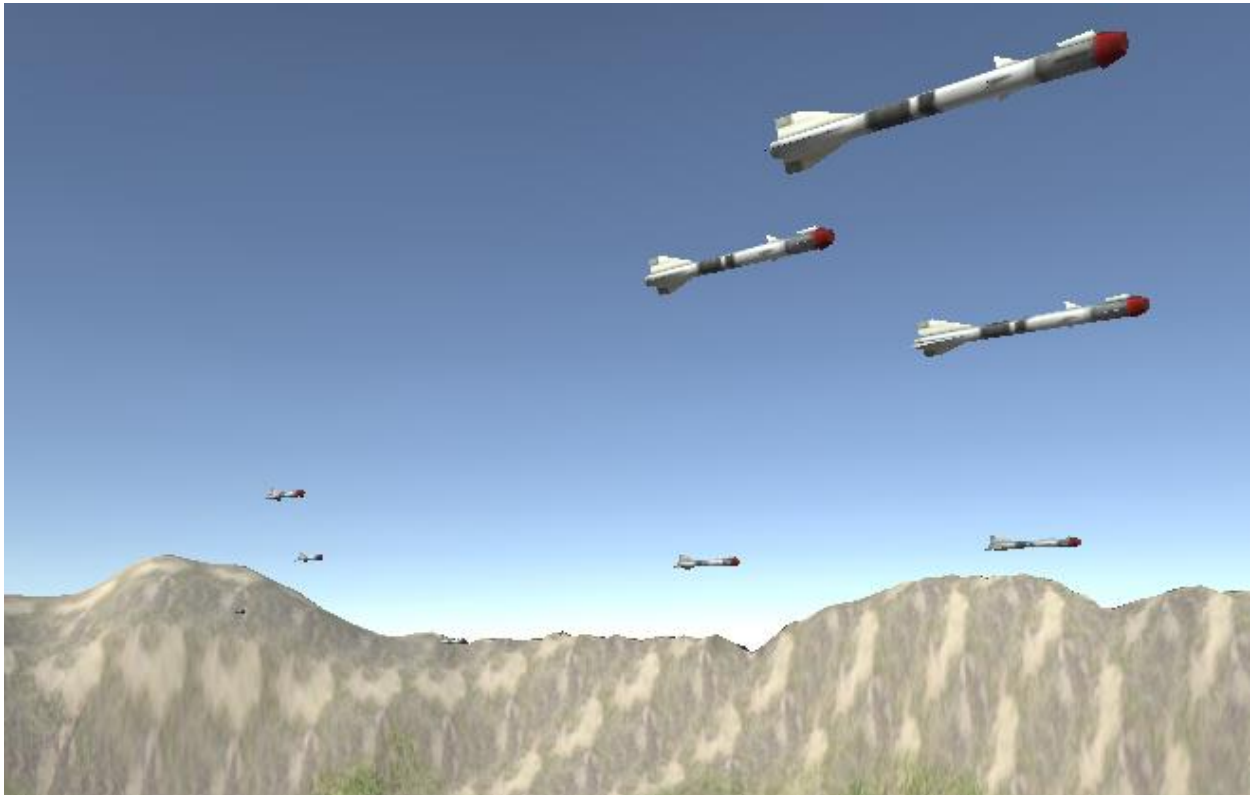


# “Deadly Rockets”



## Technical Design Document

CS 596  
Jack Chen

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## Game Development Team Members

PRODUCER
Jack Chen
PRODUCTION MANAGER
Jack Chen
PRODUCTION COORDINATOR
Jack Chen
GAME DESIGNERS
Jack Chen
SYSTEMS/IT COORDINATOR
Jack Chen
PROGRAMMERS
Jack Chen
TECHNICAL ARTISTS
Jack Chen
AUDIO ENGINEERS
Jack Chen
UX TESTERS
Jack Chen

# Executive Summary

## Game Overview

*Deadly Rockets* is a simple sandbox/simulation game where you can control rockets to your whim. You can cause massive mayhem or use it against evil. Be careful though, because the slightest slip up and they might target you next.

## Technical Summary

The Door will be developed in roughly 99 years by one person using the Unity game engine. The total cost of the game will be no greater than USD \$0.00.

The game will be deployed for PC, MAC, and Linux only.

The minimum requirements include:

PC, MAC AND LINUX STANDALONE OS: Windows XP SP2+, Mac OS X 10.8+, Ubuntu 12.04+, SteamOS+ Graphics card: DX9 (shader model 2.0) capabilities; generally everything made since 2004 should work.

## Equipment

### Hardware

The sole member of the team will utilize his personal computer, which might change depending on his personal financial situation.

Product	Task	Cost	Quantity	Total
Acer Aspire f15	Everything	\$800.00	1	\$800.00

Total: \$800.00

### Software

Product	Task	Cost	Quantity	Total
Unity	Game Editor/Engine	\$0.00	1	\$0.00
Paint	Texture Painting	\$0.00	1	\$0.00

Total: \$0.00

# Evaluation

## Game Engine

The game engine of choice to create Deadly Rockets is Unity, because this game's initial creation was for a college course that taught Unity.

## Target Platform

Deadly Rockets will be deployed to PC, MAC, and Linux only. The developer is familiar with PC, etc., and has no desire to go mobile for this game.

# Levels

## Level 1 Complexity

As an open world game, there is only supposed to be one level. However, in this demo product, it is only a small valley with rockets. This demo level only allows two behaviors: lazy flight and follow the leader. To create these behaviors for each rocket, we must go through all existing rockets and change or assign their behavior, so there is a time complexity of  $O(n)$  for both initiating and changing. Furthermore, we had to create each existing rocket, so that too is  $O(n)$ , where  $n$  is the number of rockets. Aside from those two, nothing else uses algorithms and runs in  $O(1)$  time.