**The Binding of Saw**

**Design Document**

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**Overview**

What is our artefact?

Our artefact is a room-based maze where the player is tasked with completing mini-games to win the overall game. It takes inspiration from a game called ‘The Binding of Issac’ as well as the movies from the ‘Saw’ franchise.

What does our artefact do?

The games main purpose is to entertain its players and also show how effective it can be to use multiple technologies in a harmonic way.

The technologies used.

* VR headset
* Leap Motion
* Custom shader
* Random generation
* Procedural generation
* Microphones/Audio data

Key features

* Timed mini-games
* Combination of Leap Motion and VR Headset

**The goals of the project**

**Description of the artefact**

**Description of the technologies**  
  
HTC VIVE (VR)  
This is a technology which is a headset with two built in screens that displays an image of a virtual space to the wearer***.*** It comes with two hand controllers, but they are not required to be used in this case.

This technology uses two lighthouses to create a virtual area in the room in which it is set up. These lighthouses detect the orientation of the headset (and hand controllers to visualise an in-game experience.

We chose to include this technology in the game because it allows the player to feel more immersed in the game. and gives them a way of turning while using the Leap motion.  
  
Leap Motion Controller  
Leap motion is a technology that tracks the hands of the user and used as an input device.  
We chose to use leap motion as the main technology for controlling the player. Because the mini games are different mini games the leap motion allows for the most varied amount of movements in games. The leap motion is also intuitive to the player, such as picking up an object.  
  
Custom Shader

Random generation

Procedural generation

Microphones/audio data  
  
User Requirements

Software

* Leap motion drivers
* Steam VR downloaded via steam

Hardware

* Leap Motion Controller
* HTC VIVE
* USB extenders

User Guide

To set up the set up the technologies ready for gameplay, The Vive system is to be set up as instructed by the product and the leap motion need to be attached on to the front of the VR headset so that the users hands are visible to the device when held up in front of the VR headset.  
  
Description of mechanics