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Bird Simulator 2016©: Product Proposal

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1. Project Purpose

Video games are one of the most popular forms of entertainment in the developed world. Ultimately: everyone needs a little entertainment now and then, and this is a need we intend to meet with our game, Bird Simulator 2016*. A game that will simulate the adventures of an injured bird in a hostile environment.

2. Stakeholders

Our product will primarily target the two largest gaming demographics: women over 18, and teenage boys (who make up over 50% of the gaming market†). These are our primary stakeholders, but we consider any game enthusiast (or "gamer" colloquially) as a stakeholder.

Among these stakeholders is a common need we intend to deliver: the need for an entertaining and challenging video game.

3. System Context

Bird Simulator 2016 will be designed to run on any PC with a version of java 8 or later. We are not pursuing the mobile or console platforms at this time, but we reserve the right to do so after this project's completion.

The game will be built in the java programming language, and will incorporate supporting libraries for game development. The game will be in an executable format, and will run on the user's machine‡ after they download and install it.

4. Behavioral Requirements

Bird Simulator will have a primary menu. This menu will have a 'play' button which, when clicked, launches the game.

When in the game, the user will use the spacebar, 'w', 's', 'a', 'd' to move their avatar around the map. When the user hits 'w', the avatar will jump, when the user hits 'a' or 'd' the avatar will move left or right respectively. Holding the spacebar down will cause the avatar to swoop (if it's already in the air).

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* Note: this is a working title

† Romano, Aja. "Adult Women are now the Largest Demographic in Gaming." *The Daily Dot*. http://www.dailydot.com/geek/adult-women-largest-gaming-demographic. Aug 25, 2014. Web. May 4, 2016.

‡ We initially considered the possibility of building Bird Simulator 2016 to run in-browser, but decided the overhead cost of creating another web-platform with a completely new, java-based, framework to be too high.

Pressing ‘s’ will cause the avatar to plummet (once again, only when it’s airborne)

5. Other Requirements

for the distribution platform: we are still considering our options. Steam is certainly an attractive option, but as independent developers we would have to undergo the greenlight process to have our product hosted on Steam. We are also considering merely making the game available as an open source project on github, although this would obviously limit our user base.

6. Value

The value of Bird Simulator 2016 is purely that of entertainment. There are plenty of entertaining games though (even a lot of bird based ones), so what will set our game apart?

Bird simulator 2016 will incorporate gameplay elements of both platforming and combat. Both elements will be heavily influenced by the fact that the protagonist is a bird. In platforming challenges, players will have to creatively use the swooping and diving capabilities to avoid traps, and pass difficult obstacle courses that force the player to make complex and swift use of these simple mechanics.

We also intend to make enemies that can be avoided, or attacked. These too will require well timed use of the flight mechanics to overcome.

7. Design Concept

Our initial research suggests a classic model-view-controller architecture would be the best approach for this project. This is the approach we intend to take.

This architecture separates the display, the engine, and the user input. The flow of information is strictly from user, to controller, to model, to view and thereby back to user. One appealing feature of this architecture is that these systems can be designed with some independence up to a certain point.

The main risks, in our opinion, is in the model and view parts of the architecture. Our game model will involve some tricky physics functionality which we haven’t worked out yet. Though we are more confident in our ability to create the view (as we have a talented artist on board who also has experience in making games), we are still wary