

Project Description Summary

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Lunar Landers is a multiplayer extension of the classic arcade game, *Lunar Lander*. The game pits multiple players against each other to see who is able to land their spacecraft on the surface first and prevent their opponents from doing so. The map will look familiar to fans of the original *Lunar Lander* as it is a similarly rocky and dangerous landing site on a moon. However new challenges may face the player during their match, such as lunar wind and worms, in addition to the threat of being blown away by their opponents. This game will challenge the skill and entertain any who choose to pick it up.

This product is not catered to businesses, but rather individual gamers. These gamers may not know one another, and only seek to gain entertainment from the product, not profit. The goal of this project is to entertain the players, and to offer players a challenge to share with their friends or others they find online. The competitive and simple to understand nature of the game are inherently entertaining for those who play. As the user continues to play with the game, they will hone their skills and become more familiar with new strategies and techniques to play. As the user's skill level increases they will find more value in the product as they best others in challenges and share the game with others.

We will know that players are entertained by measuring the amount of playtime and matches played, in addition to new users. We can safely assume that players would not play a game that they do not enjoy. We can measure this by observing the amount of matches a user plays over time, and see how long it captures their interest. If a user is playing a consistent amount of matches per week over a period of months, then we can say that we have been successful in entertaining the consumer. In addition looking at sales and new user adoption will help us understand if the multiplayer and party play elements of the game motivate others to play and enjoy it.

The work addressed with this product would be the entertainment of people by challenging one another in video games. Currently there are many games that allow players to challenge one another, on many types of platforms. However many of these games have a high barrier to entry, either monetarily or due to being difficult to pick up and play. Games that force players to compete with one another in short challenges are not uncommon. Many recent examples of *Battle Royale* games also cater to this audience, by pitting players against each other and allowing them to create challenge by competing with one another. The appeal of this game is that the barrier to entry is very low, as the controls are simple and the objective straightforward. In addition the matches are very short in length, allowing users to quickly play a game instead of having to commit a large amount of time to sitting down and playing the game.

The work handled by the product would be to create an environment where players can pick up and play the game. As a result, the product would need to have a strong server established to allow client connections and create matches for players to play. Allowing for an entertaining yet simple UI to allow for players to appreciate the game and its simplicity.

Potential stakeholders may include companies that are interested in cross-platform capable games or social media companies. The developing organization will act as the client since the project will have the same features for every customer. However, when releasing the product for schools or large organizations there may be larger lobbies implemented. The customers for this product are

expected to be a wide range of individuals such as anyone who is interested in a casual multiplayer video game. The customer base would have no association with any companies or organizations.

The consumer will be responsible for installing and updating the product. Similar to how most applications work, there will be an update available for users to download and install via the online store where they downloaded the product from. The user simply has to navigate to the store and update the newest version of the product. The maintenance will be solely delegated to the organization. All server updates, bugs or glitches, and patches will be the organization's responsibility.

There would be some stakeholders that may not regard the product as a useful tool for their mission statement. Some stakeholders may include companies that value health and physical activity for their customers. They would see it otherwise as a distraction and setback for customers. K-6 educational institutions may also not value the product as much as they would potentially be a distraction for their young students rather than an enhancement.

The product must be an online multiplayer game. This will create an engaging experience that will keep users playing. It must also be compatible with mobile devices. This is because most of the population and younger population have a mobile device and can play the game and create a larger audience. The product is expected to be played by the younger population using the mobile application. Because this is the case the game is expected to have easy and simple game controls and possibly different options for game controls to give users a preference. The game will be used outdoors which could make darker color schemes difficult to see in the sun, the product should implement a brighter color scheme to avoid this problem.

The product should be released in at most 2 years with more features being added over the following 2 years. For the complexity of the game this should be more than enough time and create profit over the 2 years of features being added. Releasing the game in this short time span will create profit early and also start creating a fanbase early. The product should not exceed more than 100 mb on the mobile side since users with lower quality devices have smaller storage space. This will prevent the user from wanting to delete the application because of storage space. On the PC side the product can be much bigger around one gigabyte max. This is including features which means the game could start with much less storage space and work itself up to the 100mb cap. The budget should be 300 thousand dollars based on other games with the same complexity and being online.

Feedback and data collected from the target users and the strategies players have to give them the best possible advantages will be under review and to understand how players are approaching the game. For example, if the damage dealt by the engine is too high, and can prevent players from competing, there could be scaling on the damage dealt and will be adjusted accordingly to maintain fairness while still keeping the integrity of the game. With this in mind, data and feedback will also adjust the difficulty of the maps, if there are inconsistencies within the difficulties, like if on the hardest difficulty, players always land on the safest area, we could make the safer areas less rewarding, while increasing the reward for landing on the more difficult terrain.

An assumption will be made that players can play with each other regardless of the platform they play on. This will encourage the multiplayer aspect of the game, while not burdening the consumer to have to restrict themselves to one platform to play with others. With this in consideration, the server hosting the multiplayer connections will need to allow for clients to connect on all platforms.