

**- Requirements and Analyses: Project Proposal -**

Robo Jump

**Version:** 1.0

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**Change Listing**

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**Test Listing**

The following table shows an overview of all tests – both self-tests as well as tests by inde-pended quality assurance – for the present document.

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| **Date** | **Tested Version** | **Notes** | **Inspector** | **New Product Status** |
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**Introduction**

The game “Robo Jump” is a 2D Jump ‘n’ Run simulator without much disadvantages from other 2D Jump ‘n’ Runs, we decided to use this game as a school intern project because we love casual games and we really think it will be an outstanding achievement for us in terms of programming.  
Furthermore there is a very huge market for casual games as well.  
The development of this program is mainly for people which are bored in breaks and need a small game to enjoy their time with fast playable levels.  
Last but not least it is a great opportunity for our team to deepen the knowledge in other parts of programming asides from the “standard” which is given in school lessons.  
This is made possible by working with Unity Studio.

**Initial Situation**

There are many jump and run games on the market, but in most cases, the player must invest a lot of time to achieve something.

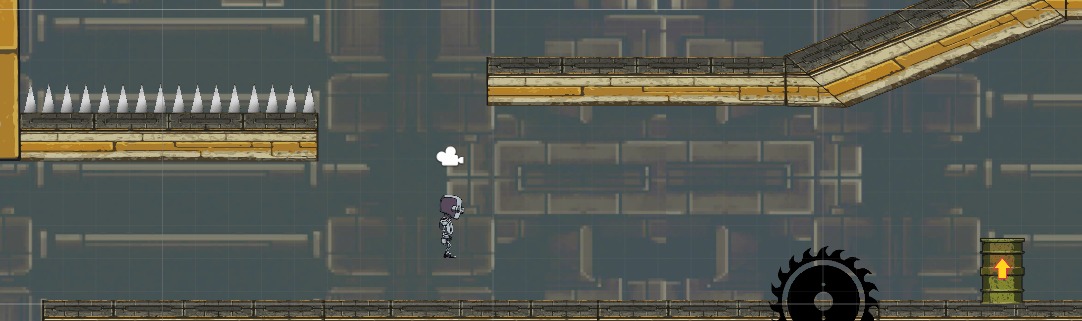
The most games have a huge disadvantage in the time aspect, the levels often have a playing time of 15-30 minutes.

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| --- | --- |
| **Game:** | **Average time for a level:** |
| Donkey Kong | 10 minutes |
| Super Mario Galaxy | 35 minutes |
| Shovel Knight | 15 minutes |
| Super Mario Bros. | 6,6 minutes |

All these Games have an average playing time over 10 minutes, expect Super Mario Bros. but that is only available on Nintendo platforms.

Robo Jump will have the advantage that the levels are playable in under 5 minutes and with that it is perfect for casual gamers which love to play in breaks and in short waiting times.

**Screenshot of the first Prototype level:**



**General Conditions and Constraints**

**Technical conditions**

The game will be done in Unity3d Engine because it uses C# for scripting and we have been learning C# for the last 2 years.

Unity3d is available on Windows and macOS, a Linux version exists but is highly experimental, so we will develop on Windows.

For C# scripting we will use Visual Studio because it is the most powerful IDE for Windows.

**Platform**

The game will be available for Windows 7+, so people without the newest operating system can enjoy our game as well.

Unity offers the possibility to publish the game on a lot of platforms, so the game could be released on more platforms in the future (e.g. on consoles).

**Language**

The game language is English to reach the international game market and to avoid the translation work.

Eventually the game will receive a German translation in the final phase.

**Budget situation**

The game development does not cost much because we only use free tools and we try to use as many free assets as possible.

**Project Objectives and System Concepts**

**Main Menu**

The main menu will be very easy to use as there will only be a few buttons and the title of the game.  
The buttons "play", "statistics" and "settings" will be placed big in the middle.

**Statistic**

There will be statistics which are accessible through the main menu.

These statistics will include the players deaths, collected coins, time and achievements.

**Level menu**

At the level menu the player will have an overview of all existing levels.  
Furthermore players can see if they have completed a level, choose and enter level.

**Level concept**

To win the game the player need to guide the robo-character through the level to the end with the help of certain Power-Ups and finally fight against a boss enemy.

The levels are not easy to complete but the time to reach the goal is quite low.

There will be around 25 levels which are oriented to a futuristic theme and a menu to access these.

**Level start:**

At each level start will be a merchant which offers you certain skills the player can level up.  
To buy these skills the player needs to collect coins in the level.

**Jump and Run part:**

While jumping through the level there will be enemies like defence towers, … which the player can fight against and if he succeeds he will earn coins.

Obstacles like spikes and laser-traps will try to prevent the player from reaching the goal, if the player dies he will respawn at the level beginning and lose all the collected coins.

**Level goal:**

Shortly before the goal, there will be a boss who the player has to overcome or defeat.

When the player reaches the goal, his collected coins will be added to the players balance which can then be used at a merchant.

Finally, the player unlocks access to the next level in the level menu.

**Opportunities and Risks**

**Potential customers**

Potential customers are students which play games in breaks and people who want to kill waiting time on for example a short bus ride.   
Also, all other people who only love casual games are potential customers.

**Opportunities**

* It would be a possibility to release the game on an online gaming platform such as Steam which would increase the number of players.
* The game could be used as an example to show what is possible with the things learned in school.

**Risks**

* There is the risk that the game will not accepted at these online gaming platforms and game.

**Planning**

* Stuff we need for the game are Game-Assets (Textures, Music, Sounds)
* Big blocks of work would be the shop system and to create the enemies, obstacles.
* Project start: After the professor accepts the proposal and project
* Project end: 2nd week of June
* Implementation start: At the project start

**Milestones:**

|  |  |
| --- | --- |
| 15.12.2017 | First obstacles and enemies implemented |
| 30.12.2017 | Prototype finished |
| 15.01.2018 | Shop implemented |
| 25.01.2018 | Main menu implemented |
| 28.01.2018 | Statistics menu implemented |
| 10.02.2018 | First level layouted |
| 20.02.2018 | First level fully playable |

**List of Abbreviations**

|  |  |
| --- | --- |
| **Abbreviation** | **Explanation** |
|  |  |

**List of Literature**

**List of Figures**