

Maze Runner

Request for Proposal

Version 1.0

Document History

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| --- | --- | --- | --- |
| Version | When | Who | What |
| 1.0 | February 7, 2019 | Everyone | Initial Draft |
|  |  |  |  |

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# 1.0 Problem description

With the innovation of virtual reality, there now exists a new gaming platform ready to be explored. Due to how recent the early stages of this platform were created, there are not many games in the ecosystem yet. The popularity of virtual reality games is increasing as the technology becomes better and demand increases. This proposal marks our initiative to take advantage of this growing market with inspiration from an older era.

# 2.0 Project Objectives

Dream Team is pursuing a contractor to build a single player computer game *Maze Runner* that utilizes modern virtual reality equipment while extending the playability of games such as Atari’s *Adventure.*

The following features are required for the game.

1. Method of delivery for high-score related metrics
2. Intuitive motion controls inside the virtual space
3. A vast number of mazes ranging in difficulty
4. Items and enemies based from *Adventure*
5. Intuitive interaction mechanisms for in-game items and enemies
6. Intuitive and VR-Safe user interfaces

# 3.0 Current System(s)–if any or similar systems

*Adventure*

Originally developed for the Atari 2600, the player controls a square avatar in an open-ended environment to find magical items and keys, avoid enemies such as dragons, and navigate complex 2D mazes. Multiple difficulty modes were added, allowing for either quick and fun games, or richer and more rewarding challenges.

# 4.0 Intended Users and their basic interaction with the system

Intended Users:

1. Those curious about the extent and functionality of VR
2. *Adventure* enthusiasts
3. Dr. BC

Uses on VR:

1. Use VR headset to view game and VR controllers to control player
2. Swing VR controller to swing sword
3. Choose options in VR menu with controller

# 5.0 Known Interactions

* Virtual Reality headset and corresponding controllers
* Online services and webhosts for scorekeeping
* OpenVR (or similar software packages)

# 6.0 Known constraints to development

* Player movement in virtual spaces are limited
* Certain VR development kits lack extensive documentation
* Cost of equipment

# 7.0 Project Schedule

* Project presentation (2/7/2019)
* Week of 2/11/2019
  + Team lead 1 is in charge
  + Code repository should be set up
  + Diagrams due
* Week of 2/18/2019
  + Team lead 2 is in charge
  + Makefile should be setup to compile all code
  + Have a working model of the game even if it is very simple and nowhere near complete
* Week of 2/25/2019
  + Team lead 3 is in charge
  + Make test plans
  + Run simple tests
* Week of 3/4/2019
  + Midterm happens
  + Testing still in progress for the week
* Week of 3/11/2019
  + Team lead 4 is in charge
  + Should look like a mostly complete game at this point
* Week of 3/18/2019
  + Work interim
* Week of 3/25/2019
  + Team lead 5 is in charge
  + Coding standards for the project are due
* Week of 4/1/2019
  + Team lead 6 is in charge
  + User manual for the game
* Week of 4/8/2019
  + Ethics audit
* Week of 4/15/2019
  + Oral presentation
* Week of 4/22/2019
  + Post mortem presentations
  + Post mortem due
* Week of 4/29/2019
  + Final Presentations

# 8.0 How to Submit Proposals

Please email all proposals in pdf format via email to Delaney Fitzgerald, Contracts Coordinator for Dream Team Corporation at [proposals@dreamteamcorp.com](mailto:proposals@dreamteamcorp.com). For any questions please contact her at 208-867-5309. Any and all questions will be reproduced and distributed to all applicants.

# 9.0 Dates

## Timeline:

|  |  |  |
| --- | --- | --- |
| Item | Responsibility | Date |
| RFP published | DreamTeam | February 7, 2019 |
| RFP submission deadline | Contractor | February 14, 2019 @ 11:59 pm |
| Contract awarded | DreamTeam | February 21, 2019 (estimated) |
| Final product delivery | Contractor | May 2, 2019 @ 11:59 pm |

The RFP submission must contain a proposed schedule that includes delivery dates for all project deliverables

## Late Penalties:

|  |  |
| --- | --- |
| Delivery Date | Penalty |
| May 3, 2019 – May 10, 2019 | 5% |
| May 11, 2019 – May 18, 2019 | 10% |
| May 19, 2019 – May 26, 2019 | 15% |
| May 27, 2019 – June 3, 2019 | 20% |
| June 4, 2019 – June 11, 2019 | 25% |

The penalty reflects a percentage of the total contract value without affecting the scope of the deliverable products.

# 10.0 Glossary of terms

**Virtual Spaces:** the digital environment in which the player is observing and actively interacting with.

**VR-Safe:** a broad category of practices and methods that make human-machine interactions functionable yet simple within certain virtual spaces.