

Software Implementation and Testing Document

For

Group <17>

Version 3.0

Authors:

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1. Programming Languages (5 points)

- The programming language used in the project is Unity in the software of the video game code as it is great for video game development as well as it is very popular and suited our needs. Unity was used to develop our game "Jurassic Journey". The other component of our project dealt with hardware; and we used Arduino and KiCad. Arduino was used to program our hardware, and it is great for beginners starting with embedded systems. KiCad was used to design the printed circuit board and chosen as it has more resources than similar PCB design languages/software and the interface is user friendly.

2. Platforms, APIs, Databases, and other technologies used (5 points)

- Github -used to share files for our project, fix bugs, and update code No APIs yet
- No Databases for this increment but probably Oracle or Microsoft SQL.

List all the platforms, APIs, Databases, and any other technologies you use in your project and where you use them (in what components of your project).

3. Execution-based Functional Testing (10 points)

For the hardware, we built a basic breadboard with lights and an Arduino unit. Successfully tested code where the breadboard was fully functionally, and we worked on the wireless connection between the board and computer. For the software, we designed the main dinosaur character, background, and obstacles.

*Describe how/if you performed functional testing for your project (i.e., tested for the **functional requirements** listed in your RD).*

4. Execution-based Non-Functional Testing (10 points)

We have a working software component, as the game is finished, and the bread board is completed as well. We were not able to wireless connect the two but both are functional on their own.

*Describe how/if you performed non-functional testing for your project (i.e., tested for the **non-functional requirements** listed in your RD).*

5. Non-Execution-based Testing (10 points)

We had a team meeting to see our current progress and to work on each of our future assignments. Everyone reviewed and contributed to the code for the entire project on GitHub.

Describe how/if you performed non-execution-based testing (such as code reviews/inspections/walkthroughs).

