DELAWARE

TSA

TECHNOLOGY STUDENT ASSOCIATION ®

Delaware TSA
April 3 – 4 , 2019
Harrington, DE

Video Game Design
https://pstsagroup.github.io/videogame2019/

Team ID # : 1025-2
Student ID #: 1025030, 1025044, 1025017, 1025045, 1025047, 1025024

General

This game is meant for children and adults alike.

Like any other eagle view "shooter," to move you use the W, A, S, and D keys to move around and your mouse to aim and shoot a variant of dangerous enemies.

This 2D shooter game places the player inside of a very requiring situation where you must save a guardian of the world, and if you do not, the entire world would collapse to an evil demon. The player is given the ability to fire magical bullets at enemies and is able to modify the strength of the bullets with wand-modifiers. These modifiers can have bullets deal more damage, slow enemies, attack faster, or knock back enemies. In the game, there are three dungeon levels that progressively get harder, and finally, end in a boss fight. To progress to the next level, all enemies must be defeated.

Special Mechanic: Modifiers

Our special mechanics are modifiers. These "modifiers" can change how you shoot spells as an apprentice (yes, you are an apprentice). They can increase damage, slow down enemies, and more. These modifiers increase the gameplay experience as it may vary the gameplay and overall make things more fun.

Storyline:

Floor 1 (Level 1) - The Beginning

You have been summoned by a magical higher force to save the Elder Wizard, one of the five guardians of the world. You are to destroy an evil powerful demon in order to save the elder wizard. He instructs you and teaches you how to traverse the foreign dungeon that you have been called to. You are given a weapon to attack with, being a wand, and two modifiers that can modify its attack qualities.

Floor 2 (Level 2) - New Mods… But a New Enemy?

In the second level, you obtain a new set of mods! They are arguably better than your initial modifiers, and in fact, can be used with the previous mods. However, only two can be used at a time and not two from the same "set of mods"

at the same time. Additionally, golems arrive! They are melee attackers that can deal a lot of damage, and they have much more health than their weaker counterparts.

Floor 3 (Level 3) - Demonic Encounter

In the third and final level, you face a long path down to the showdown with the abominable demon. The journey is tedious and the path confusing, but eventually you make it. You must get hit after hit on the demon even though golems and zombies are constantly spawning to attack you. But after much labor, you succeed. The elder wizard is saved; congratulations!

Controls

W/Up arrow - Move Up
A/Left Arrow - Move Left
S/Down Arrow - Move Down
D/Right Arrow - Move Right
Left click on the side panels to activate a modifier to the attack
Left click or left hold - shoot

STUDENT COPYRIGHT CHECKLIST

(for students to complete and advisors to verify)

1) **Does your solution to the competitive event integrate any music?** ☑ YES ○ NO

   If NO, go to question 2.

   If YES, is the music copyrighted? ☐ YES ☑ NO

   If YES, move to question 1A. If NO, move to question 1B.

   1A) Have you asked for author permission to use the music in your solution and included that permission (letter/form) in your documentation? If YES, move to question 2. If NO, ask for permission (OR use royalty free/your own original music) and if permission is granted, include the permission in your documentation.

   1B) Is the music royalty free, or did you create the music yourself? If YES, cite the royalty free music OR your original music properly in your documentation.

   CHAPTER ADVISOR: Sign below if your student has integrated any music into his/her competitive event solution.

   I, _____ (chapter advisor), have checked my student's solution and confirm that the use of music is done so with proper permission and is cited correctly in the student's documentation.

2) Does your solution to the competitive event integrate any graphics? ☑ YES ○ NO

   If NO, go to question 3.

   If YES, is the graphic copyrighted, registered and/or trademarked? ☐ YES ☑ NO

   If YES, move to question 2A. If NO, move to question 2B.

   2A) Have you asked for author permission to use the graphic in your solution and included that permission (letter/form) in your documentation? If YES, move to question 3. If NO, ask for permission (OR use royalty free/your own original graphic) and if permission is granted, include the permission in your documentation.

   2B) Is the graphic royalty free, or did you create your own graphic? If YES, cite the royalty free graphic OR your own original graphic properly in your documentation.

   CHAPTER ADVISOR: Sign below if your student has integrated any graphics into his/her competitive event solution.

   I, _____ (chapter advisor), have checked my student's solution and confirm that the use of graphics is done so with proper permission and is cited correctly in the student's documentation.

3) Does your solution to the competitive event use another's thoughts or research? ☐ YES ☑ NO

   If NO, this is the end of the checklist.

   If YES, have you properly cited other's thoughts or research in your documentation? If YES, this is the end of the checklist.

   If NO, properly cite the thoughts/research of others in your documentation.

   CHAPTER ADVISOR: Sign below if your student has integrated any thoughts/research of others into his/her competitive event solution.

   I, _____ (chapter advisor), have checked my student's solution and confirm that the use of the thoughts/research of others is done so with proper permission and is cited correctly in the student's documentation.

Arcane Anomaly Student Checklist Citations:

Music:
"Dungeon in the Gamebox" by TeknoAXE's Royalty Free Music on YouTube.
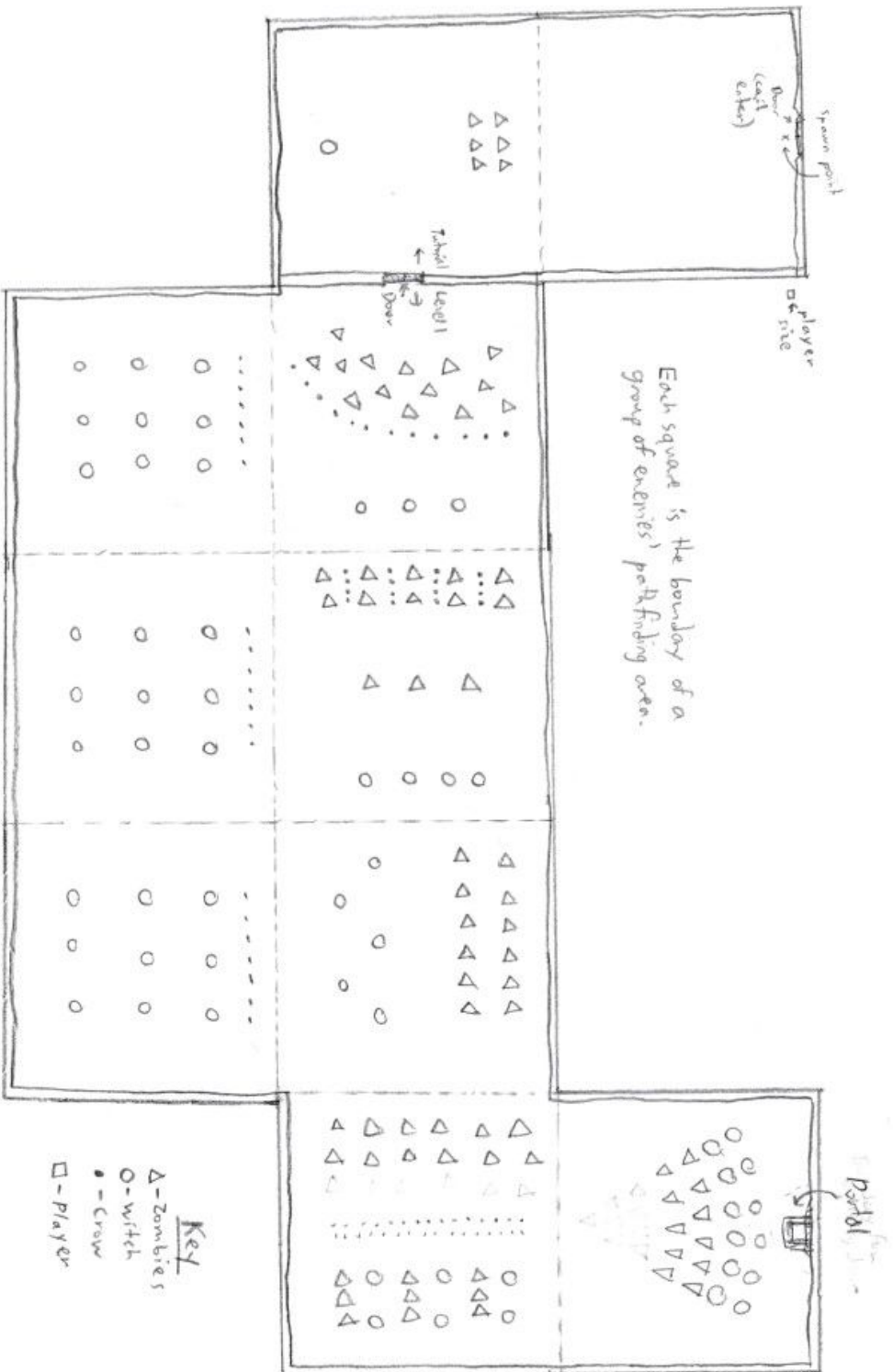https://www.youtube.com/watch?v=7k6d2kXb0m4

Graphics:
The Witch (walking and attack cycles) and the edge blocks in the dungeon were made by
1025045 using Piskel

The Wizard, Main Character, Demon, Crow, Golem, Zombie, Cobblestone, Vine Stone,
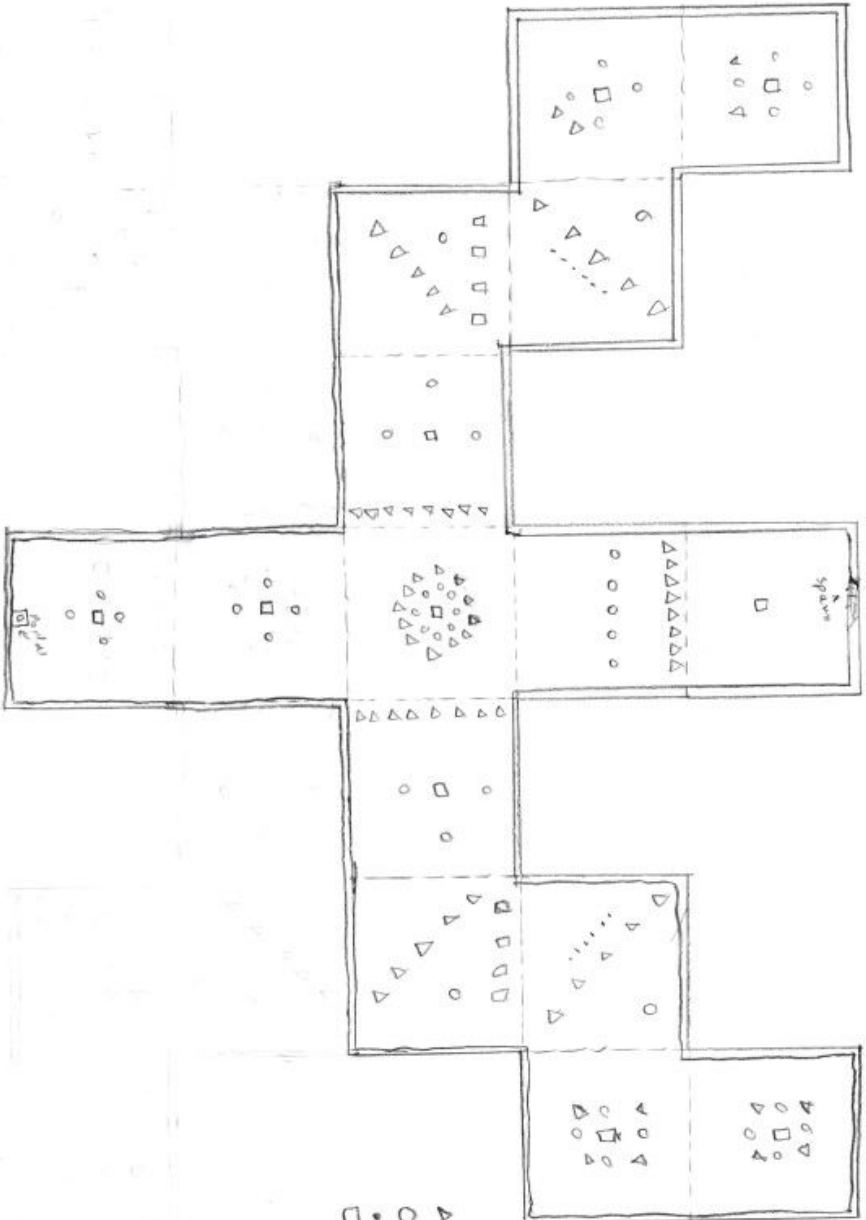Cobwebs, Fire, Water, Earth, and Air Was made by 1025017 using Piskel

The Red Attack Block was made by 1025030 on MS Paint

Each square is the boundary of a group of enemies' pathfinding area.

Spawn point

Door (exit enter)

□ - player site

Tutorial Level 1
Door

Portal

Key
Δ — Zombies
O — witch
• — Crow
□ — Player

Level 2

Key
△ – Zombies
○ – Withches
• – Crow
▢ – Golem

Level 3/
Final Level

Key
△ — Zombies
O — Witches
• — Crows
□ — Golems
♦ — Demons
✱ — Elite
      Witches

Portal (spawns
 ← enemies)
(working
 model)

Spawns
a with
every 5 sec

Spawn
a flier
every 5 sec

Spawns
a double
every sec

cage →
with
Elder
Witches

Expanded Patrolling
 cubes (2×2) →

Exit
Door (not here
until both
set of down)

Plan of Work Log

Date	Task	Time involved	Team member responsible	Comments
1 12/18/19	Making an outline for the game	100 minutes	1025030	Built a rough and basic map for the game. Coded some basic controls.
2 1/21/19	Started on some ideas for the game	60 minutes	1025044	Started a basic storyline and script. Made a google docs for all our ideas
3 1/23/19	Planned for the game with the rest of the group	90 minutes	1025017	Worked on the script and discussed different aspects of the game. Collaborated on the doc
4 1/23/19	Planned for the game with the rest of the group	90 minutes	1025044	Worked on the script and discussed different aspects of the game. Collaborated on the doc
5 1/23/19	Planned for the game with the rest of the group	90 minutes	1025030	Worked on the script and discussed different aspects of the game. Collaborated on the doc
6 1/23/19	Planned for the game with the rest of the group	90 minutes	1025047	Worked on the script and discussed different aspects of the game. Collaborated on the doc

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	Date	Task	Time involved	Team member responsible	Comments
1	2/7/19	Drawing sprites and animations	30 minutes	1025017	Mainly worked on the main character
2	2/7/19	Working on script and storyline.	30 minutes	1025047	Wrote lines in the script and worked on what kinds of monsters would be in the game
3	2/7/19	Worked on documentation and discussed some ideas	30 minutes	1025024	Discussed with everyone the flow of the levels and the different monsters
4	2/7/19	Working on script and storyline.	30 minutes	1025044	Wrote lines in the script and worked on what the attacks will be like
5	2/14/19	Worked on sprites and animations.	40 minutes	1025017	Drew some characters and discussed what they will look like
6	2/14/19	Worked on sprites and animations.	40 minutes	1025045	Drew some characters and discussed what they will look like

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Plan of Work Log

Date	Task	Time involved	Team member responsible	Comments
1 2/14/19	Worked on script and storyline. Did some text box work	40 minutes	1025047	Took the script we made and started putting it into the generator with all the correct settings
2 2/14/19	Worked on documentation and helped with ideas	40 minutes	1025024	Discussed ideas with the group. Note: We all spent a lot of time discussing ideas
3 2/21/19	Working on script and storyline. Did text box work.	60 minutes	1025047	Used the generator. We all discussed ideas. Worked on the plot.
4 2/21/19	Worked on the characters and drawing	60 minutes	1025017	Drew some sprites and animations. Drew some backgrounds. Worked on plans for characters
5 2/21/19	Worked on the characters and drawing	60 minutes	1025045	Drew some sprites and animations. Worked on plans for characters
6 2/21/19	Helped with the art	60 minutes	1025030	Worked with the artists to make sure the art was being correctly done and to give input

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Plan of Work Log

Date	Task	Time involved	Team member responsible	Comments
1 2/21/19	Discussed some ideas	30 minutes	1025024	Talked with everyone and gave input
2 2/21/19	Made music and discussed some ideas	100 minutes	1025044	Created some basic music and gave input
3 2/22/19	Working on script and storyline. Did text box work.	60 minutes	1025047	Used the generator. Discussed ideas. Worked on the plot.
4 2/22/19	Worked on the characters and drawing	60 minutes	1025017	Drew some sprites and animations. Worked on plans for characters
5 2/28/19	Worked on script and storyline. Did documentation work.	100 minutes	1025047	Started on the copyright checklist
6 2/28/19	Worked on documentation and gave some ideas.	60 minutes	1025024	Talked with everyone and gave input

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Plan of Work Log

Date	Task	Time involved	Team member responsible	Comments
1 2/28/19	Worked on the characters and drawing	100 minutes	1025045	Drew some sprites and animations. Worked on plans for characters
2 2/28/19	Worked on the characters and storyboard	100 minutes	1025017	Drew some sprites and animations. Worked on plans for characters. Also started drawing the storyboard
3 2/28/19	Gave Ideas and helped with art	60 minutes	1025030	Worked mainly on the storyboard and storyline. Talked about how our ideas can be coded
4 2/28/19	Worked on storyline and storyboard	60 minutes	1025044	Worked mainly on the storyboard and storyline. Discussed how things will be done in the end
5 3/1/19	Did some documentation and text boxes	60 minutes	1025047	Did the copyright checklist and the plan of work log. Did some final ideas
6 3/1/19	Worked on the characters and drawing	60 minutes	1025017	Drew some sprites and animations. Worked on the storyboard

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Plan of Work Log

Date	Task	Time involved	Team member responsible	Comments
1 3/2/19	Coding the game	20 minutes	1025030	Made a basic version of the first level. Put in some of the sprites.
2 3/2/19	Drawing Storyboards	20 minutes	1025017	Drew out the storyboards for all the levels
3 3/3/19	Coding the game	120 minutes	1025030	Started developing a more challenging level
4 3/4/19	Coding the game	120 minutes	1025030	Added a health system. Added attack mods.
5 3/6/19	Coding the game	120 minutes	1025030	Got all the sprites and graphics from the team. Added them in. Developed the level.
6 3/7/19	Coding the game	180 minutes	1025030	Finished up the second level and nearly completed the last level.

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Plan of Work Log

Date	Task	Time involved	Team member responsible	Comments
1 3/8/19	Finishing the game	120 minutes	1025030	Finished building the last level. Did some touching up to sprites and menu.
2				
3				
4				
5				
6				

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MIDDLE SCHOOL LEAP RESPONSE – TEAM EVENT

TEAM INFORMATION

Team ID: 1025-2

Competitive event: Video Game Design

1. COMPETITIVE EVENT LEADERSHIP EXPERIENCES
   How did your team apply one (1) or more of *The Student Leadership Challenge** Practices to this competition? (100 to 200 words)

One student leadership challenge my team developed was invigorating a shared vision. All of our team members shared possible ideas for our video game based on their personal experiences or the good ideas they had. We considered everyone's ideas and compromised by finalizing the idea we chose. We succeeded in having a shared vision through all of the members and a common vision of what is going to happen in the future. In addition, we are trying something new for our video game idea and doing something that we have never done close to before. This was a hard challenge but I think this was completed very well. We are all working together to find new information and new ways to accomplish what we want to accomplish. Overall, we did a good job on our video game and completed many of the student leadership challenges.

2. NON-COMPETITIVE EVENT LEADERSHIP EXPERIENCE
   How did members of your team apply one (1) of *The Student Leadership Challenge** Practices to a leadership activity in one (1) of the following categories: *Leadership Roles; Community Service/Volunteer Experiences; Career Planning?* (50 to 100 words)

Our team established different leaders in different positions at what that person was good at. We did this so they should each model the way on how to do certain things so we could learn from each other. Everyone acted as a leader in their different jobs and we showed each other how to accomplish more tasks well. We also used past experiences to recall possible ideas that we could use to make our video game. Ideas from past video games and different coding challenges along with service helped us on our journey.