

Cyberdisc:

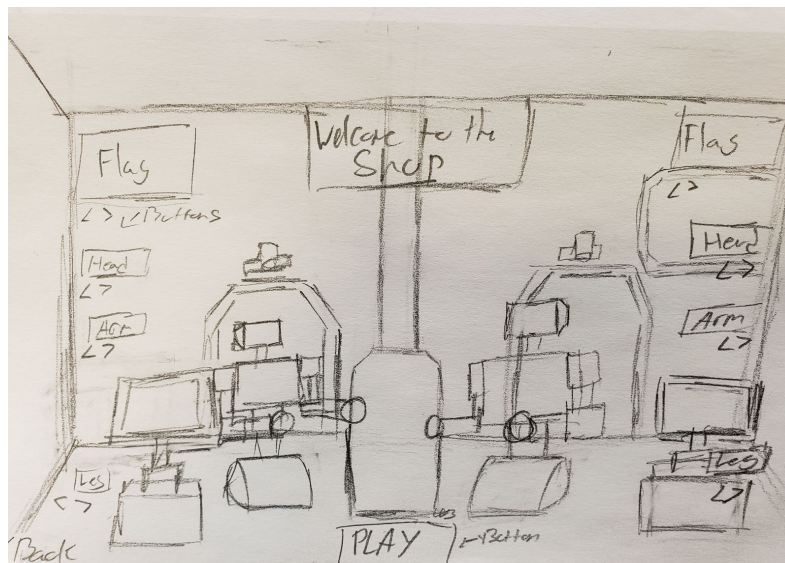
TSA Documentation & Game Design Document



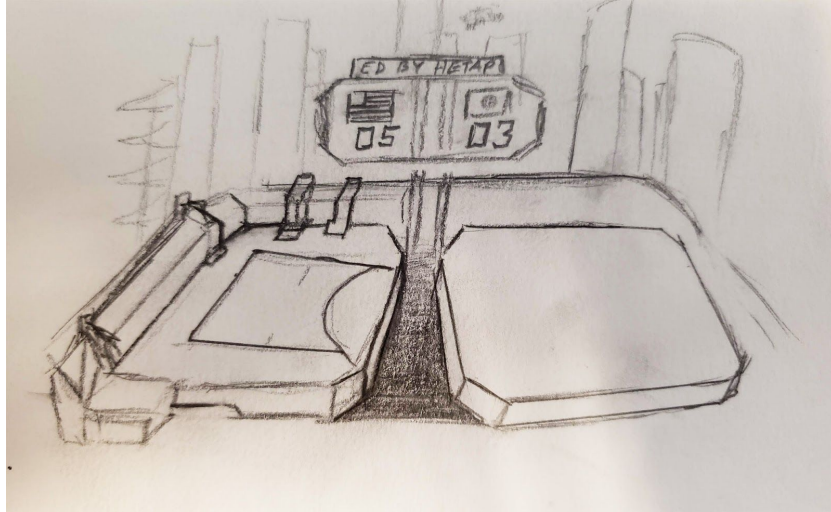
Storyboard



1) Menu/Splash screen

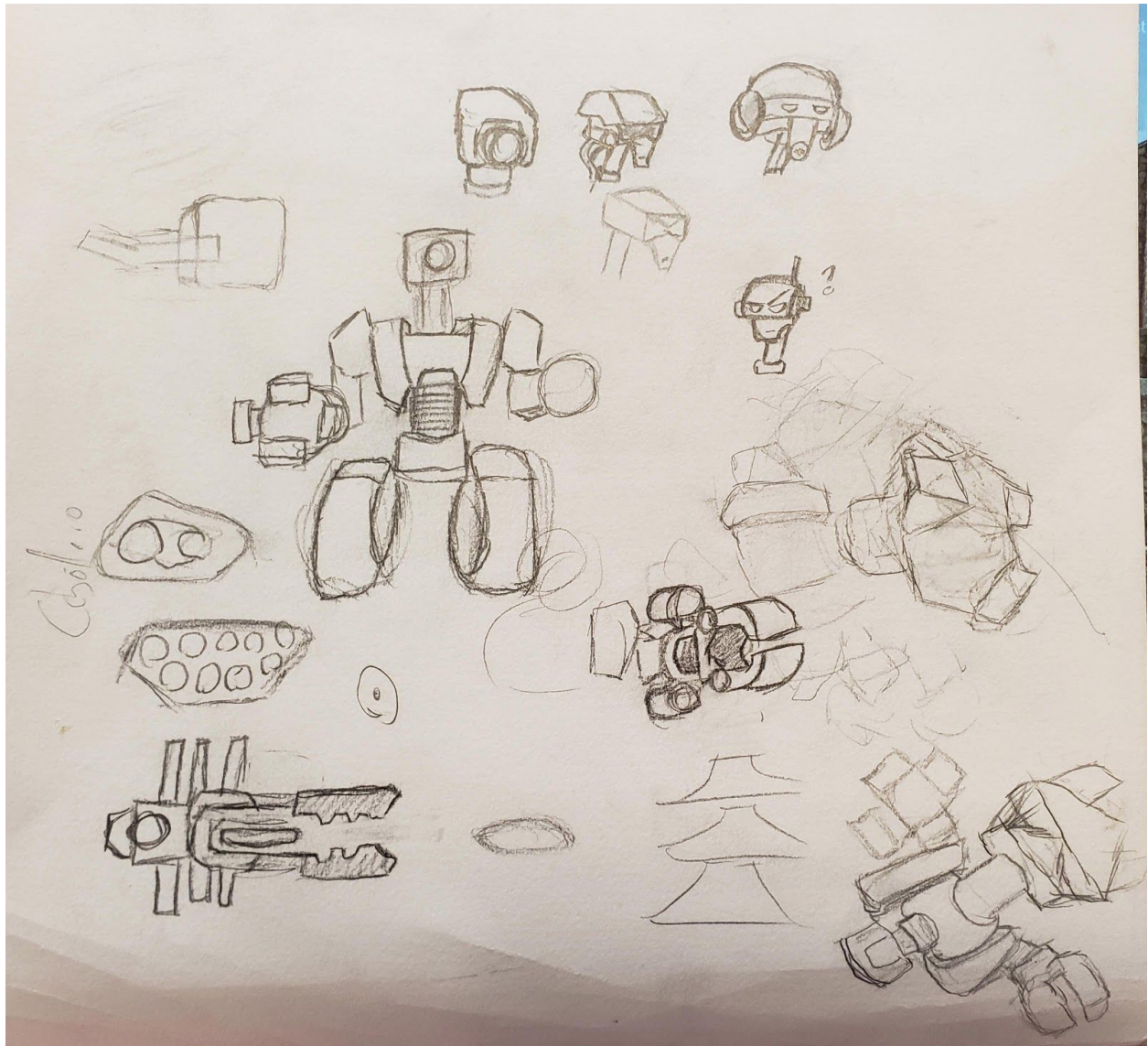


2) Workshop - configure robots and select a team/nation



3) Arena - Gameplay

Additional Concept Art



Description:

Cyberdisc is a digital futuristic sports game. The objective of the game is to get your disc into the other person's goal 10 times. The game takes inspiration from Tennis, Hockey, and similar games, while also recalling the discus throw of the ancient Games. Set in a near-future Tokyo, Cyberdisc is a result of the inspiration the team took from Japan's futuristic cityscapes and the upcoming 2020 Tokyo games. As technology students and members of the TSA, we've added a twist - the competitors are robots representing various nations - and customized by the player to match their playstyle.

As we continue to update the game, we intend to add more options to customize the robots, as well as continue iterating on the sound and visuals. Though it's still a bit raw around the edges, we hope you will enjoy this early version of Cyberdisc!

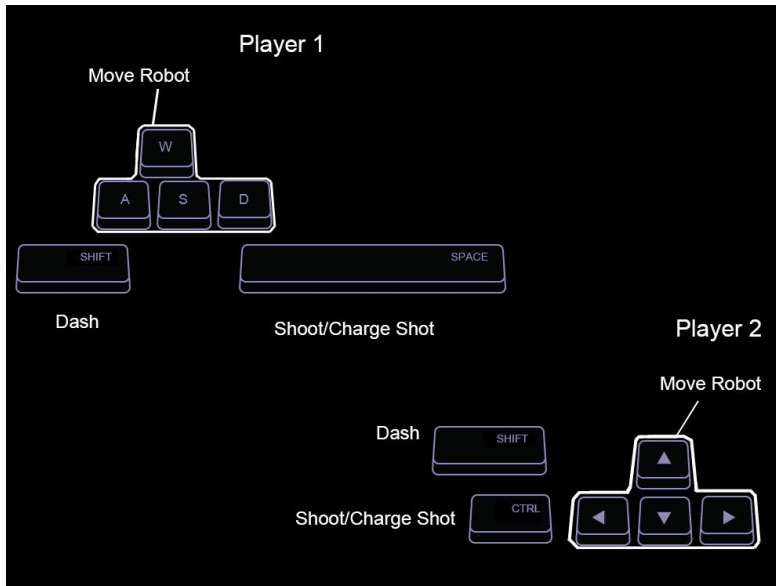
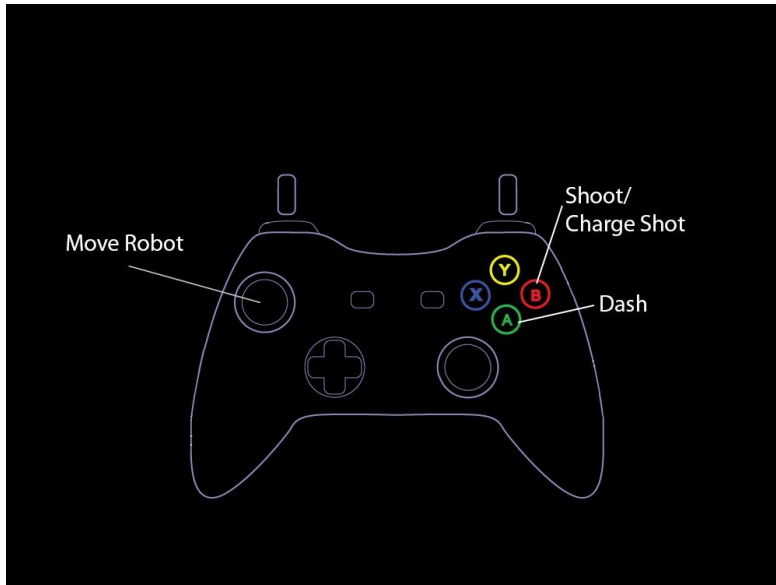
How to play

Goal: Choose a nation to represent, configure your robot, and enter the arena! Throw your disc past your opponent's defenses and into the goal zone, and score a point! Reach a score of 10 points before your opponent, and you win!

The ideal way to play Cyberdisc is with a pair of Xbox (360 or One) controllers. However, PC controls have been provided for those who may not have the controllers ready at hand. Also, note that menus currently require a mouse pointer to operate - all-controller functionality is coming soon!

Charging: As you play, you may notice that if you hold down the shoot button while not carrying the disc, your robot may slow down - this is intentional. Catch the disc in this state, and you will fire a charged shot - which will fly much faster than a regular one! It's tough to time it correctly, but pulling it off can mean the difference between victory and defeat. (Better feedback around this interaction is soon to come).

Configuring your robot: In the current version, only the arms have a real effect on gameplay. The first arm is balanced; the second is poor at "catching" the disc, but has a much more powerful "charge" effect (see above). The third arm charges poorly, but is very good at catching the disc making it an excellent defensive choice. We will be adding more customization options (arms and otherwise) in the near future!



Technical Specifications

Cyberdisc was created using the following software:

- Unity 2017.4 LTS (All code in C#).
- 3D Modelling in Maya 2019 and Blender
- Texturing and additional 2D work in Adobe Photoshop
- Audio using Audacity and Magix Music Maker

Open Source and royalty free content

The following content was incorporated into the game and is either open source or royalty free:

-Skybox image from AllSky free package:

<https://assetstore.unity.com/packages/2d/textures-materials/sky/allsky-free-10-sky-skybox-set-146014>

-”Toon” shader by Roystan

<https://roystan.net/articles/toon-shader.html>

-Operational Amplifier - free font by Typodermic

<https://www.fonts.com/font/typodermic/operational-amplifier?QueryFontType=Web&src=GoogleWebFonts>

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, [Signature] (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, [Signature] (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, [Signature] (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.



TECHNOLOGY STUDENT ASSOCIATION PLAN OF WORK

| | Date | Task | Time involved | Team member responsible (student initials) | Comments |
|----|----------|----------------------------|---------------|---|----------|
| 1. | 11/15/19 | coding | 80hrs | Italia Boone (IB) | |
| 2. | 11/15/19 | music designer | 25hrs | Dontavious Reed (DR) | |
| 3. | 11/15/19 | game artist | 45hrs | Dakota Smith DS | |
| 4. | 11/15/19 | game artist/production | 25hrs | Kamiya Cameron (KC) | |
| 5. | 11/15/19 | Game design and testing | 70hrs | jason King (JK) | |
| 6. | 11/15/19 | sound effects | 20hrs | Zunye Heard (ZH) | |

Advisor signature

Work-in-Progress Screenshots



