Project Deliverable H:
Prototype III and Customer Feedback

University of Ottawa

GNG1103: Engineering Design

Group 10

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1.0 Introduction

1.1 Feedback

- seems to take longer than a minute

- a lot of rooms for the video so cut out bathroom

- mostly good, storyline is creative,

- did VR work?

2.0 Prototype III

Table 1: Test objective of Prototype 2

Test Objectives (**Why**)	Description of Prototype used and of Basic Test Method (**What**)	Description of Results to be Recorded and how these results will be used (**How**)	Estimated Test duration and planned start date (**When**)	Results
Test the Unity environment transfers to the VR	Transfer the Unity environment onto the VR program.	Record how the audio and graphics transfer from one program to another.	20 minutes	The environment successfully transferred to the VR
Test the VR is easy to set up	Ensure the setting up the VR is easy, timely, and accessible.	Physically setting up the VR to use and timing the process. This should take less than a minute once practiced.	10 minutes	We can set up the VR under 5 minutes
Test the Controls on the VR	Ensure the user can move around affectively in the environment.	Have a sample user move through the environment and record their experience.	5 minutes	The controls are simple and allow the user to move around the environment effectively

Fireplace Prototype Iteration

As a team we discussed using a fireplace under the makeshift grill in our environment, however, one of our criteria is accessibility and it was concluded that the animated fire would cause the program to lag, making our communication of ethical concerns inaccessible at the cost of

USB Challenges

- Uploaded project to USB
- Added USB to laptop
  - Error came up
  - Error w/ USB, needed repair

2.1 Description of Results Prototype III (from table)

The table outlines the objectives, methods, and outcomes of Prototype 3 testing. Firstly, when we tried to transfer the unity environment to the VR, we ran into many issues with importing objects and the physics of objects. However, we have found solutions for those issues and have successfully transferred to the VR. Secondly, we have practiced the VR setup processes and are confident we can complete it in under 5 minutes. Lastly, we tested the control on the VR with a sample user, and it successfully moved around the environment. In conclusion, the VR implementation of this project has been successful.

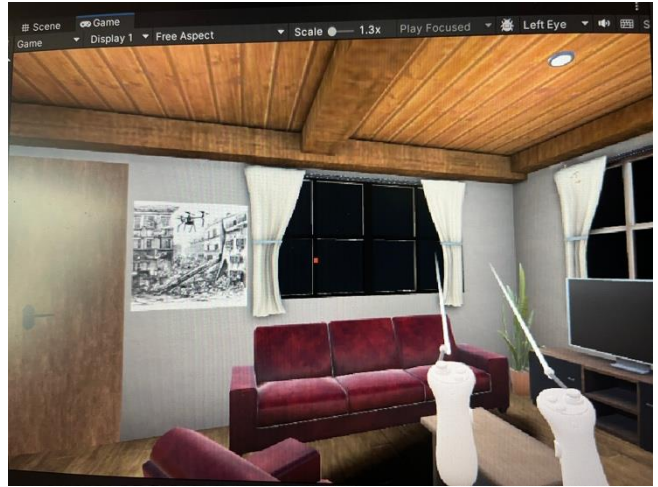**3.0 Prototype III (screenshots)**
Figure 1: VR Screenshot 1

Figure 2: VR Screenshot 2

Figure 3: VR Screenshot 3

Figure 4: VR Screenshot 4

4.0 Added media

Below are all the updates we've made to our VR simulation and video. For one, we've modified our storyline just a little to be a girl, instead of a boy living on her own after both her parents, instead of just the dad, died when headed outside to get groceries one morning. Besides that, the story has remained mostly the same. We've also got the sounds, unity assets and designed assets we've created/found to upload later into our 1 min video.

4.1 Script outline (1 min worth):
ETHICAL CONCERN: Lack accountability and bias towards military prospects

{silence is interrupted alarm clock, rustles to waking up}

BEDROOM

[grunting noises]

[Radio in the background interrupts]

Radio: "On today's news, 12 more people were killed by the fleet of killer robots. Based on the recent trend of deaths, researchers have determined that there has been a programing error where the weaponds are confusing civilans with soldiers. If you are between the ages of 17 and 40, stay inside!

[kid passes by closet, checks out clothes]

Kid: "Where'd I put that...where's my watch?"

[franticly searches for it but gives up and passes by bookshelf: "Insert title", "Insert title"]

Kid: "ugh fine, I've gotta check my plants any ways"

[exits]

BATHROOM

[goes to check on plants, nasty state, bathroom adapted to grow plants with fecus]

Kid: "Seems alright, maybe I'll come back later to check again"

LIVING ROOM

[looks at mushrooms growing from cracks in the house, thinking of eating them]

Kid: "Maybe l should have mushrooms for dinner again tonight, nah, I'll find something else"

KICTHEN (dim lighting)

[news article laid on the counter right next to him]

Kid: [reads the paper Headline: "Killer robots gone rogue, programming error creates bias"]
        "Subtext: While testing killer robot prototype for military use, an unexpected
programming   error was found to target civilians mistaken for soldiers. Most have now been shut
down but 5   are still on the loose. Dark clothing and time indoors are recommended to stay
safe in the   meantime.

[drops the paper and goes to open the food cupboard, picture of child drawing pasted in front]

Kid: "NO! You're kidding. I knew I shouldn't have eaten the last cup noodle. What am I
supposed   to do now?!"

[goes to test tap but no water comes out?]

Kid: [chuckles] "Just like always, nasty water, dirty clothes and now no food. [sigh]"

[passes by picture of dad, letter attached beneath it]

Dad: [flashback narration] "Hey kid. I didn't wanna wake you, but I'll be gone by the time you
        get up, getting food. See you soon."

Kid: [whispers to himself] "Why'd you have to leave dad?"

        Kid: [looks at calendar, 3 months crossed out] [sighs] "Already 3 months since my he's
left....   Huh look at that, it's almost my birthday soon [monotone] "

[existential crisis]

"NO, NO! What am I DOING?! I'll be 17 in a WEEK. I shouldn't have to starve everyday, reuse
all my clothes, boil my water EVERYTIME before drinking it, eat worms that I've grown in the
BATHROOM? What is this life?..... I've gotta get out, do something, anything but this... And the
worst part of it all is that there's no one to blame."

[exits Kitchen, to leave out the door, scene ends]

THE END

4. 2 Sound

- Narration
    - Script
    - Radio
- Ambient sound
    - Heartbeat
        - Passion for sounds. (2023). Heartbeat from 60 bpm to 210 bpm □ and slowing down to 45 bpm ✿ [YouTube Video]. In *YouTube*. https://www.youtube.com/watch?v=fVK-LP3ecNU
    - Piano (Catherine)

- Sound effects
    - Alarm clock
    - Ruffling through clothes

4. 3 Designed Assets

- self help books

- water warnings

- Mushroom gardening infographic
- Boarded windows – wood planks

4. 4 Video Production

A 1-minute-long video will be recorded through VR. We will use a script, sounds, music and the environment to convey our storyline.

4. 5 (Free) Unity Assets

- Tinned Food: https://assetstore.unity.com/packages/3d/props/food/tinned-food-89246
- Realistic Kettle: https://assetstore.unity.com/packages/3d/props/electronics/realistic-kettle-207636
- Food & Kitchen props pack: https://assetstore.unity.com/packages/3d/props/food-and-kitchen-props-pack-85050

- Food pack mixed: https://assetstore.unity.com/packages/3d/props/food/food-pack-mixed-154349
- Potted plant: https://assetstore.unity.com/packages/3d/vegetation/plants/potted-plant-249570
- Gardening supplies set: https://assetstore.unity.com/packages/3d/props/tools/gardening-supplies-set-257733
- Gardening tools pack: https://assetstore.unity.com/packages/3d/props/tools/gardening-tools-pack-26-pbr-objects-183477
- Toy sprinkling can: https://assetstore.unity.com/packages/3d/props/toy-sprinkling-can-102803
- Petrol chainsaw: https://assetstore.unity.com/packages/3d/props/petrol-chainsaw-74889
- Radio https://assetstore.unity.com/packages/3d/props/radio-230712
- Medication Survival Game Tools | 3D Tools | Unity Asset Store
- 4.99$ Dirty rags Old Dirty Torn Rags | 3D Props | Unity Asset Store
- 4.99$ dirty tiles Indoor Tile Substances Collection | Substances | Unity Asset Store
- Wheelchair Folded wheelchair, Unfolded wheelchair PBR | 3D Props | Unity Asset Store
- Dirty bucket Dirty Bucket(low-poly) | 3D Props | Unity Asset Store

5.0 Conclusion

This prototype is mostly unchanged from the previous prototype. Ethical concerns were slightly altered due to the received feedback, and audio was added to the environment. Going forward, only the video is left to be complete.