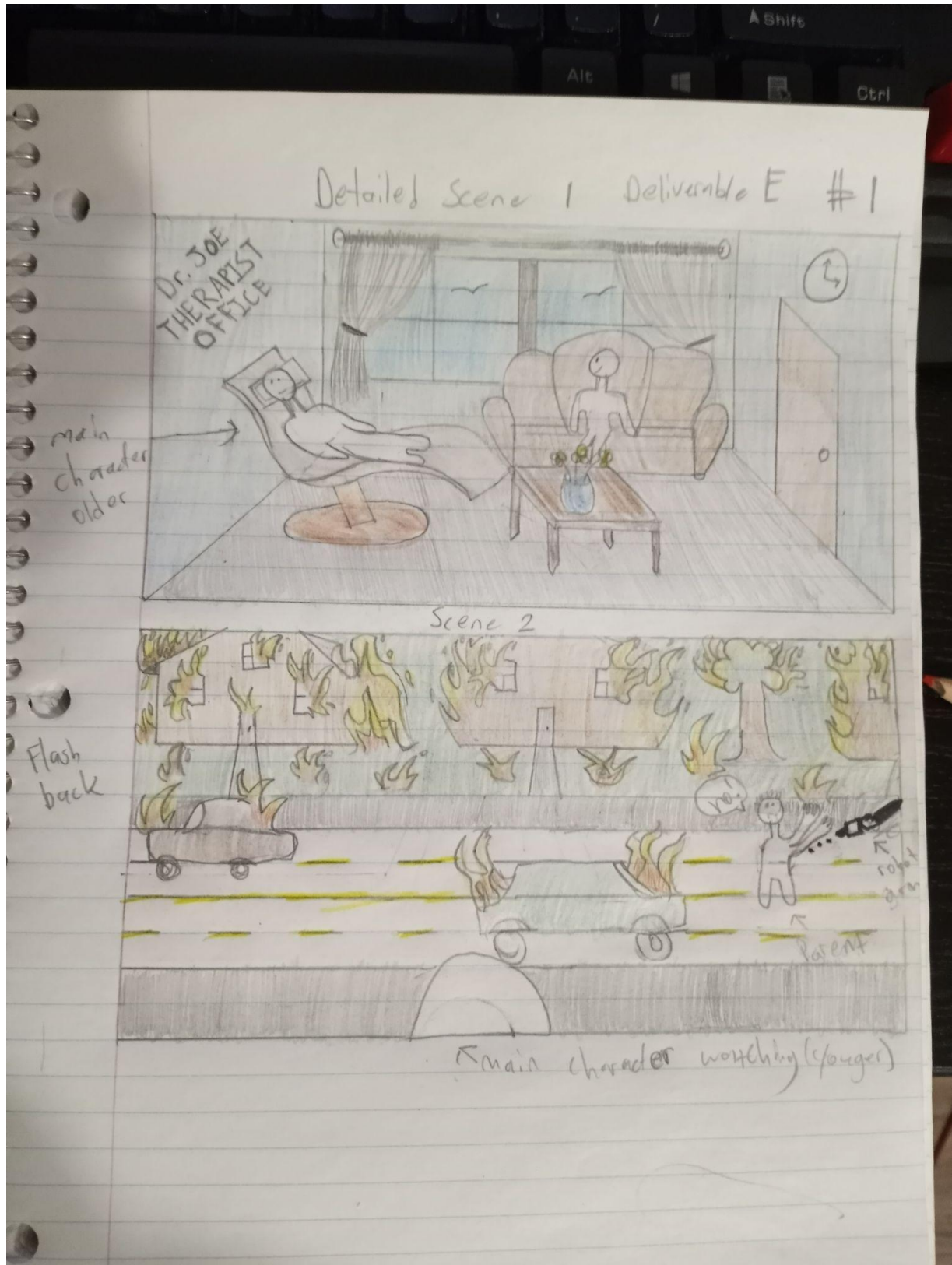# Deliverable E

Part 1 - Detailed Drawings

General plan - Our prototype will start with the user walking into the office and going to the therapists room. A dialogue will be started between the user and the therapist. Then the user will talk about robots and how seeing them triggers a flashback to when the user's family was killed by robots and that scene will play. In this flashback, the POV will be the user when they were younger and they will see their house and everything around them burning. The user will then see a robot shoot their parents and during that shooting sound the flashback will cut back to reality. The therapist will talk once more to the user and then the VR experience will end.

Scene one:
Context - Main character/user goes to a therapist or psychiatrist's office and begins talking about their mental issues that came from watching robots kill their parents and destroy their homes. This scene shows the setting of the office and what the user will see in the VR.

Parts needed:
- 255 pixel studios's city package Unity asset
- JBGarraza's 1 toon teen Unity asset
- 255 pixel studios's polygon office building Unity asset
- Immersive Interactive's modern lounge chair 001 Unity asset
- Joe Louis Robinson's modern minimalist sofa Unity asset
- JB Garraza's 2 toon people Unity Asset
- Unity
- Visual Studio

Scene two:
Context - Main character/user experiences a flashback and sees his house and surrounding areas burning and sees his parents getting shot by a robot (will not be graphic or scary). This scene shows what the user will generally see, which is a bunch of fire and robots shooting down on their parents.

Parts needed:
- Fire Unity asset either Vefects's free fire vfx, Hovl Studio's procedural fire, Lewis Wards' fire propagation or Unity's Unity particle pack
- Mehdi Rabiee's house pack Unity asset
- JBGarraza's 1 toon teen Unity asset
- JB Garraza's 2 toon people Unity Asset
- 255 pixel studios's city package Unity asset
- MyxerMan's simple cars pack Unity asset
- Robot Unity asset either Marcelo Barrio's robot soldier, IL.ranch's ACS or Slava Z's Mech Constructor: Light and Medium Robots
- Unity
- Visual Studio

THE NEEDED PARTS ARE SUBJECT TO CHANGE AND NOT INDICATIVE OF OUR FINAL ASSETS

Part 2 - Bill of Materials

Item Name	Description	Units of Measure	Quantity	Unit Cost (Cad $)	Extended Cost (Cad $)	Link
City package	Prebuilt city	unit	1	0	0	https://assetstore.unity.com/packages/3d/environments/urban/city-package-107224
Mech Constructor	Semi-realistic robot	unit	1	30	30	https://assetstore.unity.com/packages/3d/characters/robots/mech-constructor-light-and-medium-robots-39969
2 Toon people	Characters for therapist or parent	**unit**	**1**	**9**	**9**	https://assetstore.unity.com/packages/3d/characters/humanoids/2-toon-people-116917
1 Toon teen	Character for testing	unit	1	0	0	https://assetstore.unity.com/packages/3d/characters/humanoids/1-toon-teen-135513
Modern lounge chair	Chair for user to sit on	unit	1	0	0	https://assetstore.unity.com/packages/3d/modern-lounge-chair-001-5197

Modern minimalist sofa	Couch for therapist to sit on	unit	1	0	0	https://assetstore.unity.com/packages/3d/props/furniture/modern-minimalist-sofa-136398
Fire propagation	Fire 1 for testing	unit	1	0	0	https://assetstore.unity.com/packages/tools/fire-propagation-92187
Procedural fire	Fire 2 for testing	unit	1	0	0	https://assetstore.unity.com/packages/vfx/particles/fire-explosions/procedural-fire-141496
Free fire vfx	Fire 3 for testing	unit	1	0	0	https://assetstore.unity.com/packages/vfx/free-fire-vfx-hdrp-239742
Unity particle pack	Fire 4 for testing	unit	1	0	0	https://assetstore.unity.com/packages/essentials/tutorial-projects/unity-particle-pack-127325
Polygon office building	Office building where therapist is	unit	1	0	0	https://assetstore.unity.com/packages/3d/environments/urban/polygon-office-building-82282
Simple car pack	A pack of simple cars	unit	1	0	0	https://assetstore.unity.com/packages/3d/vehicles/land/simple-

						cars-pack-9766 9
House pack	An array of houses	unit	1	0	0	https://assetstor e.unity.com/pac kages/3d/enviro nments/house- pack-35346
Robot Soldier	A pack of robots for testing	unit	1	0	0	https://assetstor e.unity.com/pac kages/3d/chara cters/robots/rob ot-soldier-1424 38
ACS	Realistic autonomous robot	unit	1	5	5	https://assetstor e.unity.com/pac kages/3d/props /weapons/acs-1 14947

Total Cost	$44 CAD + Taxes

THIS TABLE IS SUBJECT TO CHANGE AND NOT INDICATIVE OF OUR FINAL ASSETS

Part 3 - Prototyping Equipment

For prototype 1, we plan on using only the free assets in our BOM or in the asset store to see how our general idea will go. This stage will determine which assets are usable and if more content is needed.

Equipment needed for prototype 1:
- Unity
- Visual Studio
- 255 pixel studios's city package Unity asset
- 255 pixel studios's polygon office building Unity asset
- JBGarraza's 1 toon teen Unity asset
- Immersive Interactive's modern lounge chair 001 Unity asset
- Joe Louis Robinson's modern minimalist sofa Unity asset

- Fire Unity asset either Vefects's free fire vfx, Hovl Studio's procedural fire, Lewis Wards' fire propagation or Unity's Unity particle pack (This prototype will determine which fire is best)
- Mehdi Rabiee's house pack Unity asset
- MyxerMan's simple cars pack Unity asset
- Robot Unity asset either Marcelo Barrio's robot soldier

For prototype 2, we hope that we have a conclusive plan on what exactly happens in our story and have determined which assets are going to be used in our final product. This prototype will include some paid assets like to Toon people which will be needed to simulate character movement and potential facial expressions. This prototype includes both versions of the paid robots (the $5 one and $30 one) to see which fits naturally in our story and setting. This prototype will also include movement

Equipment needed for prototype 2:
- Unity
- Visual Studio
- 255 pixel studios's city package Unity asset
- 255 pixel studios's polygon office building Unity asset
- Immersive Interactive's modern lounge chair 001 Unity asset
- Joe Louis Robinson's modern minimalist sofa Unity asset
- Fire Unity asset either Vefects's free fire vfx, Hovl Studio's procedural fire, Lewis Wards' fire propagation or Unity's Unity particle pack (One of these will be used)
- Mehdi Rabiee's house pack Unity asset
- MyxerMan's simple cars pack Unity asset
- L.ranch's ACS Unity asset ($5)
- Slava Z's Mech Constructor: Light and Medium Robots Unity Asset ($30)
- JB Garraza's 2 toon people Unity asset ($9)
- Potential new assets

Prototype 3 will be our final prototype before our final product. We believe this prototype will be similar to our final product as it serves to find any missing pieces (things we can add to enhance the final product) as well as implements dialogue and sound.

Equipment for prototype 3:
- Unity
- Visual Studio
- 255 pixel studios's city package Unity asset
- 255 pixel studios's polygon office building Unity asset
- Immersive Interactive's modern lounge chair 001 Unity asset
- Joe Louis Robinson's modern minimalist sofa Unity asset

- Fire Unity asset either Vefects's free fire vfx, Hovl Studio's procedural fire, Lewis Wards' fire propagation or Unity's Unity particle pack (One of these will be used)
- Mehdi Rabiee's house pack Unity asset
- MyxerMan's simple cars pack Unity asset
- L.ranch's ACS Unity asset ($5) or Slava Z's Mech Constructor: Light and Medium Robots Unity Asset ($30) (one of these will be used)
- JB Garraza's 2 toon people Unity asset ($9)
- Potential new assets

Part 4 - Project Risks

Risk one: The team's current coding knowledge may not be enough when prototyping begins.

Solution: In order to prevent this from happening the group will study how to do specific things in unity that are related to our problem. For example, since we are using fire in a scene, we will need to find a way to incorporate it. Adding fire effects is not easy for coders of our knowledge thus we will turn to youtube tutorials to solve our problem.

Risk two: The project and the prototypes will not finish on time.

Solution: The team will meet more frequently so that more time is spent on finishing the prototypes so that the work is finished on time. If that is not enough, I (Elshad) will spend more time doing it alone to ensure that it is ready.

Risk three: We cannot find free assets that we like and our current assets are not sufficient.

Solution: For this problem, the team will browse the paid section of the Unity asset store as there are a lot of paid assets that are of high quality and more personalizable and prevalent to our project. For example we did this when we could not find any good free robot assets so we decided that we will spend $30 on the best robot asset on the market.

Part 5 - Prototyping Test Plan

Prototype					Testing			
#	**Type**	**Objective**	**Fidelity**	**Feedback**	**Objective**	**Stopping Criteria**	**Result**	**Time**
1	Focused Analytical	Asset implementation and autonomous weapon portrayal	low	Client feedback involved	All assets are effectively incorporated	Assets are incorporated into the city and robots are shown	Not conducted yet	Not conducted yet
2	Focused Analytical	Movement implementation	medium	Client feedback involved	VR accepts inputs user	User's in real life movements are reflected in VR	Not conducted yet	Not conducted yet
3	Focused Analytical	Dialogue and audio implementation	high	Client feedback involved	VR experience emits sound	User is able to hear sound from VR or Headset	Not conducted yet	Not conducted yet