

Objective:

Develop your third prototype. Get customer feedback on your prototype.

Instructions:

1. Develop a prototype which will be used to achieve the objectives your team has set out in the plan created in the last deliverable (i.e. you need to answer the “why”, “what” and “when” of prototyping).
 1. Remember: a prototype is not normal work on your project, it is something that has a smaller, targeted objective with specific tests and measurable results.
2. Carefully document your prototyping test plan, analysis and your results (including detailed images of your prototype).
3. You must gather feedback and comments on your ideas and prototype from potential clients/users that you have sought out and identified on your own and/or your actual client. It is now after the third client meeting so be resourceful to find other users who can give you feedback, however it can be as easy as asking your friends and family a few questions.
4. If applicable, update your target specifications, detailed design and BOM after tests are completed and analyzed.

Since this will be your team’s third prototype, your justifications and reasoning for this prototype should include a short explanation of your results from your previous prototypes and how this third prototype continues the development of your solution. This third prototype should be a fully functional version of your solution (i.e. a comprehensive prototype). Keeping in mind the total course budget of \$100 or \$50, get creative in order to improve your results. It does NOT need to be the version you would actually sell.

Again, it is strongly recommended that you start early. Keep in mind that this prototype should be comprehensive and will require a significant amount of time to complete.

Start thinking about the information you will need for the user manual (deliverable K). You should be able to start the documentation of your final prototype as you go through this deliverable.

Task Plan Update:

1. Update your Wrike task boards to include any changes in estimated task duration, missing tasks, task responsibilities, milestones, or dependencies, based on your better understanding of the project or based on feedback that you have received from your PM/TA.
2. Include more detailed sub-tasks for the tasks that will need to be completed over the next few weeks.

- Important note: It should be possible for ONE person to complete each identified task or sub-task in the allotted time. The allotted time should also be *reasonable*, based on the task owner’s availability. Everyone should be doing their fair share of the work.
3. Verify and update the task start dates and end dates for each task, based on your project progress.
 4. Ensure that you have taken into account each team member’s *actual* availability over the next two weeks, as well as significant events, such as particularly high course loads, exams or travel, which might be going to limit actual project work progress.
 5. For *each* person in your group, it should be possible to determine:
 - What was completed last week (i.e. “**Completed**” tasks),
 - What will be done next (i.e. “**In Progress**” tasks)
 - If tasks are going to be put “**On Hold**” or “**Cancelled**” altogether
 6. Any and all group “Issues” should be discussed and dealt with, ideally with the assistance of your Project Manager (PM). This should happen during **each** of your lab sessions or can happen earlier, using your defined communication methods. As already explained, it is essential to keep your PM/TA “*in the loop*” throughout the term. It is usually *not* a good idea to ignore conflicts between team members. Instead, you should deal with them in a constructive way.

Prototyping test plan

= finished

=in progress/current prototype

Test #	Test Objective (Why)	Prototype Test Method (What)	Prototype Description (How)	Test Date (When)	Stopping criteria	Progress
1	Is this product within the specified time limit	Analytical, comprehensive, high fidelity prototyping	The length of time it takes to go through our environment will be recorded with a stopwatch	Prototyping test will take 2 hours On November 28th	Video is within 45-60 seconds	Video lasts 55 seconds
2	Does the product’s movement system function	Analytical, focused, low fidelity prototyping	Camera movements and character movement within a	Prototyping test will take 30 minutes, November 4th	User is able to look up, down, left, right and move forward,	Works well

			generic environment		back, side to side Movement is not laggy	
4	User interactivity with environment	Analytical, focused, low fidelity prototyping	User can see environment clearly	Prototyping test will take an hour and be done on November 9th	All writing (on posters) is legible Furniture and assets are recognizable Image quality is not blurry	Works well (posters yet to be added)
5	User accessibility <ul style="list-style-type: none"> • subtitles • clearness of assets and audio 	Analytical, focused, high-fidelity	subtitles are shown 3D spatial audio can be heard clearly words on screen can be read and understood easily	Nov 19-25	Audio is at least clear to the viewer, subtitles optional. All writing (on posters) is legible	using C# scripts, large and clear subtitles have been added 3D spatial audio works correctly and is clear enough to understand Posters enlarged and made high-definition to enhance readability

Client Feedback

Megan's Feedback:

- “radio helped me understand what was going on”
- “Very intriguing and got me to think about our society moving toward that and what it would look like”
- “I feel like it would end nice if the message either faded to black or appeared in two parts like ‘you are not a target. Ban autonomous weapons before you become one”
- “Volume of the radio is a little quiet and hard to hear”
- “Maybe add more details to the wall like newspaper articles”

Rayyan:

- “overall, good, if you want a more clean vibe that is good, but if u want to have it more depressing, try an add some grunge to the environment, audio sounds good in the scene”
- “Audio is really interesting and captivating, see about adding effects or filters to it so that it sounds like it's coming from the small, seemingly low budget radio in the room. If it's a possibility, try making the audio less prominent as you move away to add to immersion. Quality of the graphics is good, but frame rate seems to be a little on the low side. See about smoothing this out to make it less stressful on the players eyes (or patience) Textures, textures, textures. Try adding some textures to differentiate certain surfaces so they don't all blend together”

Newscast Audio

- https://drive.google.com/file/d/1kZyZhevHEGvr3at3ISIMHOYoxzKjUASC/view?usp=drive_link

The goal of this prototype was to have a narration that both resembled an authentic newscast and helped the user understand the objects around them. This audio segment consists of both Jadon's and Megan's voices. Then, it was modified to have a radio-like sound with <https://voicechanger.io/> and then edited in DaVinci Resolve. Jadon recorded a quick news chime on the keyboard and a fadeaway transition was added to the end.

Subtitle Prototype

- <https://drive.google.com/file/d/1qDRBbz5imld2C-cD2ycyvJ5uVGChqJBj/view?usp=sharing>

This prototype tested the logic behind how the subtitles can be programmed and implemented into the code. The purpose of subtitles is to aid in the comprehension of the audio, especially for those who are hearing-impaired. The C# script for subtitles works based on time elapsed in the program. There are three variables used. The first is timeLeft1, which is the time elapsed BEFORE showing the subtitle. After this time counts down to zero, timeLeft2 is the time that the subtitle is on the screen. Finally, gameObject test is assigned in the Inspector Window in Unity to a Text object that holds the subtitle, which is part of Unity's UI objects. Upon the program's start, the SetActive() function makes the subtitle inactive and it does not appear on the Game screen. After timeLeft1 elapses, FinalMessage() is called by Invoke, which is part of Unity's Scripting API. FinalMessage() causes the subtitle to become active and show up on the Game screen. After timeLeft2 elapses, FinalMessage2() is called and the subtitle is made inactive.

Code:

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class capt1 : MonoBehaviour
{
    float timeLeft1 = 3.02f; // time before showing subtitle on screen
    float timeLeft2 = 4.08f; // time subtitle on screen before gone
    public GameObject test;

    void Start()
    {
        test.SetActive(false);
        Invoke("FinalMessage", timeLeft1);
    }

    void FinalMessage()
    {
        test.SetActive(true);
        Invoke("FinalMessage2", timeLeft2);
    }
}
```

```

}
void FinalMessage2()
{
    test.SetActive(false);
}
}
}
}
}
}

```

Endcard Prototype

- <https://drive.google.com/file/d/1T3c21iJdaiDPuMGDytqKz6I526f4w-Z6/view?usp=sharing>

This prototype uses the same logic as the subtitles prototype—in fact, the subtitles prototype was based on the logic in the End Message Screen’s C# logic.

Updates to Existing Plan

BOM

PART NUMBER	PART NAME	DESCRIPTION	QTY	UNIT S	UNIT COST	TOTAL AMOUNT
1	unity software	https://unity.com/success-plans/integrated-success?utm_source=google&utm_medium=cpc&utm_campaign=cc-abm_iss_amer_amer-tl_en_a_w_sem-gg_aca_br-pr_2023-05_cc-abm-amer-tl-br_cc3022_ev-br_id:71700000112699686&utm_content=cc_abm_iss_amer_pu_sem_gg_ev-br_pros_x_npd_cpc_kw_sd_all_x_x_courses_id:58700008486337662&utm_term=unity%20tutorial%20course&&&&qad=1&qclid=CjwKCAjwv-2pBhB-FiwAtsQZFPmY5PCIGBarWeAnmJJLqrQl6JwCFGMSb6idsw5rJdAnW1vVTG_vkxoCMUMQAvD_BwE&qclsrc=aw.ds	1		0\$ (provided by university of Ottawa)	0\$

2	VR headset	(provided by university)	1		0\$ (provided)	0\$
3	Posters	(colour printed at university)	2		0.63\$	1.26\$
4	Move Camera + WASD Movement Code	https://gist.github.com/gunderson/a7f096bd07874f31671306318019d996	1		0\$	0\$
5	Retro Radio	https://assetstore.unity.com/packages/3d/props/ha-pbr-oid-retro-radio-free-180303	1		0\$	0\$
6	Tinned Food	https://assetstore.unity.com/packages/3d/props/food/tinned-food-89246	1		0\$	0\$
7	Large Hat	https://assetstore.unity.com/packages/3d/props/clothing/cowboy-hat-1-200835	1		0\$	0\$
8	Fridge	https://assetstore.unity.com/packages/3d/props/electronics/kitchen-appliance-low-poly-180419	1		0\$	0\$
9	Padlock	https://assetstore.unity.com/packages/3d/props/interior/padlock-with-password-225067	1		0\$	0\$
10	Wooden Board Textures	https://assetstore.unity.com/packages/2d/textures-materials/wood/plank-textures-pbr-72318	1		0\$	0\$
11	Canva (Poster Designing)	https://www.canva.com/	1		0\$	0\$
12	DaVinci Resolve Video Editing Software	https://www.blackmagicdesign.com/products/davinciresolve	1		0\$	0\$
13	Voice Changer	https://voicechanger.io/	1		0\$	0\$
14	Unity Scripting API	https://docs.unity3d.com/ScriptReference/	1			
15	Mask	https://www.cgtrader.com/free-3d-models/character/clothing/y-for-vendetta-guy-fawkes-anonymous-mask	1		0\$	0\$
16	Radiator	https://assetstore.unity.com/packages/3d/props/old-radiator-185991			5.65\$	5.65\$
17	House Interior	https://assetstore.unity.com/packages/3d/props/interior/free-house-interior-223416	1		0\$	0\$

TOTAL PARTS

TOTAL

6.91\$