# CMPT 371 – Team 3

# Risk Management Plan

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# Introduction

# The Rating scale:

Negligible (0% - 20%)

Minor (20% – 40%)

Moderate (40% - 60%)

Significant (60% – 80%)

Severe (80 - 100)

# Instruction:

Probability – Probability rating of the risk to occur

Impact – Impact rating to the program

Priority – Priority of the risk to our project

Risk – Discerption of the risk

Project Impact – Potential impact of the risk to the project

Consequences – Consequences that can happen to active the contingency plan

Response – Response strategy to prevent the risk from causing issues.

Contingency Plan – Risk Contingency Plan

Insurance – Plan in place that would lower the cost of the risk to the project

# Virtual Reality Risks

# Motion Sickness

Risk: Motion sickness can happen from slow refresh rate, poor resolution, visual vestibular mismatch (sensory conflict between visual and motion sensor).

Project Impact: Motion sickness can turn people off to VR, which could cause the entire project if the problem become too significant.

Consequences: Motion sickness cause the users to experience general discomfort, nausea, headache, disorientation and fatigue.

Probability:

Moderate

Impact:

Moderate

Priority:

Significant

Response: Less virtual movement and extensive testing for different type people. Try different types to reduce discomfort, for example adding a nose, glasses, body, to the user. Add a session timer.

Contingency plan: Equalize the sensory cues by fixate on an object far away.

Insurance: Before testing, have the tester answer an questionnaire telling them there is a possibility of motion sickness and give their signature for approve.

# Eye Strain

Probability:

Minor

Impact:

Significant

Priority:

Moderate

Risk: Eye strain happens from too much HEV (high energy light) for long period of time. Staring at the screen that is inches from your eyes. Distortion in the picture.

Project Impact: The developer doesn’t have much control for the risk to occur, they can only implement tools and refinement of the project to lower the probability of the risk.

Consequences: Eye strain can cause permanent damage to the retina. Short-sighted, and nausea from distortion.

Response: Significant focus on steady FPS (frame rate per second) to avoid distortion, and unnatural strain on the eye. Add a session timer. Add an option for the user to adjust the view for each eye camera, or couple of pre-set view.

Contingency plan: Because the symptom is physical damage, there is not much the developer can do, except doing their best to help the user prevent risk from happen.

Insurance: Have the tester answer an questionnaire telling them there is a possibility of eye strain and give their signature for approve.

# Physical Injuries

Risk: Physical Injuries in VR can happen from bad frame rate, no visual representation of the user’s arm in VR, uneven or messy surrounding.

Project Impact: The impact to the project would be significantly high because, physical safety is an important thing for any body, so the developer would have to put an significant amount of time to perfect it.

Consequences: Motion sickness would give the user physical pain from, fall, colliding with hard object, breaking bones just to name a few. It can also cause damage to house hold items like the computer screen, water cups, desk.

Probability:

Minor

Impact:

Significant

Priority:

Moderate

Response: Give user the freedom of customizing their works station to match their real-life environment, and design an intuitive and easy to use UI (user interface). Doing test with users to help with the design of the UI.

Contingency plan: Because the symptom is physical damage, there is not much the developer can do, except doing their best to help the user prevent risk from happen.

Insurance: Add the possibility of physical injuries into the User Guide and advise the user to prepare the work space before using VR.

# Breaking

Risk: Accident breaking would only have the chance to happen during programming and user testing session when the user accidently drops the VR headset, so the probability is minor.

Project impact: The impact would be significant for the team because if an accident does happen to occur then it would greatly diminish our ability to test and programming, delaying the due date.

Consequences: Most of the consequence to the team would be the time cost, and spending cost for the owner.

Probability:

Minor

Impact:

Significant

Priority:

Moderate

Response: Always have member of the team on site to provide assistant for the tester, and make most of the physical dealing with the VR head set to the team member.

Contingency plan: Because the symptom is physical damage, there is not much the team can do, except to do their best to preventing risk from happen.

Insurance: Have the tester answer an questionnaire, and tell them that there is a possible of accident breaking to the VR headset, so only the team would be allow to put the headset on and taking it off, and If any accident does occur we would have to follow the guideline. Ask the tester to give their signature for approve.

# Unity License

Risk: There are 3 type of unity license, Personal, Education, Plus, and Pro. The big different between the license is the ability to publish the project. The personal, and higher all have the ability to publish, but the Education doesn’t, and if any project that is edited on the education will be mark in the unity metadata.

Project Impact: The impact to the project would be huge, if any of the team member accidently edited in the wrong version without knowing, the mistake could jeopardize the entire project.

Consequences: The main problem would be the project will lose its ability to be published.

Probability:

Moderate

Impact:

Significant

Priority:

Significant

Response: Try not to open the project on the university’s computer, do most of the work on your own personal computer, and be cautious of the risk.

Contingency plan: Try to identity when the problem might had started, and look through the past save file to see if there is an version before it. Check for the amount of data missing and with the help of the old problem project update the older version back to the current states.

Insurance: Consistently doing backup of the project, check 3 project version, a one day old, a 3 days old and a week old version. Trying to cover all possibility.

# Sick

Probability:

Moderate

Impact:

Moderate

Priority:

Moderate

Risk: Sickness can happen unexpectedly with not many abilities for team have to help prevent the risk from happening, so the only thing the team can do is help lower the consequence the risk cause to the project.

Project impact: The impact depends on the response of the team, if the team keep up with the response plan, then the impact can be negligible. It will also depend on how long the sickness will last.

Consequences: The only major problem to the project is losing a team member for the duration of the sickness.

Response: The best way to help lower the impact of the risk is to have everyone know what each person is doing. For that too happen require multiple peer program and code review or all the team member, we can add a request page for peer programming.

Contingency plan: Because the symptom is physical damage, there is not much the team can do, except to do their best to preventing risk from doing too much impact to the project.

Insurance: The team leader would have to be insuring that peer programing and code review is taking place.

# Holidays

Probability:

Minor

Impact:

Minor

Priority:

Moderate

Risk: Holiday is a common occurring events, it is something that the group can expect. The risk is only when they team member is traveling some where far away or doing something involve high risk that the risk would occur.

Project impact: The impact is minor for normal holidays, but It might grow when holiday become closer to due date.

Consequences: The only major problem with the holidays is unscheduled holidays, and response plan not being meet.

Response: The best way to help lower the impact of the holidays, is to have a code review or a peer programming section, for the people that will be hard to get in contact with during the holiday, that way the rest of the group can back them up if something happens that will cause them to extent their trip and delay their involvement back into the project.

Contingency plan: Because the symptom is physical problem, there is not much the team can do, except to do their best to preventing risk from doing too much impact to the project.

Insurance: The team leader would have to be insuring that peer programing and code review is taking place.

# Drop Class

Probability:

Minor

Impact:

Significant

Priority:

Minor

Risk: The team member dropping the class for reasons like they are in a very bad team environment, life issues, and many unforeseen issues,

Project impact: The impact to the project would depend on their position in the team, but either way it would be significant. Lose a member can sometime destroy a project if it is not taken well.

Consequences: The major problem would be if the team member left the group without giving the team ahead notice, the impact would be increase dramatically.

Response: The best ways to prevent dropping class from happening, and doing too much impact is to try, and find out each member’s concern and problem they might have with the project and in other field, only if they are willing to share.

Contingency plan: Because the symptom is physical problem, there is not much the team can do, except to do their best to preventing risk from happening and doing too much impact to the project.

Insurance: The leaders would have to be trying to talk to the team member and keep update to the status of the team members.

# Server Crash

Response: Prepare a backup way of communication and programming options.

Contingency plan: Because the symptom is a problem outside of our control, there is not much the team can do, except to do their best to preventing risk from happening and doing too much impact to the project.

Insurance: The leaders would have to try and

Probability:

Minor

Impact:

Significant

Priority:

Minor

Risk: The school server can crash unexpectedly.

Project impact: Stop the work flow of the project, may also impact communication and program development significantly.

Consequences: Halting the development process for the Oculus Rift.

# Communication

Risk: The Slack server can crash.

Project impact: The team would lose all communication, cause the team to go blind.

Consequences: No communication between team member, because slack is the only tool that all the team member shares.

Response: Project manager acquires all the team member’s contact information for immediate transfer.

Contingency plan: Project manager contact all team member to transfer to the backup, already establish communication tool.

Insurance: Create a back up communication tool that team can use when the main tool is down. Backup all communication.

Probability:

Minor

Impact:

Significant

Priority:

Minor

# Working on:

Hacking

Continues Integration

Accident

Share Holder

Corrupted code

Due Date