# **Project Deliverable B: Need Identification and Problem Statement**

# **Introduction**

This document portrays the customer statements, interpreted needs, and the problem statement regarding our project in accordance with Mines Action Canada with the ultimate goal of seeing the ban of autonomous weapons. We also address certain benchmarking tools we will use in order to thoroughly understand the problem at hand and familiarize ourselves with similar products out there in the market.

# **Client Needs**

(5-most important to 1-least important)

Questions	Priority	Customer statements	Interpreted needs
What do you want included in the VR experience?	4	- Full experience in a short amount of time (2-5 minutes) - One VR space - Make someone laugh or cry, win over minds and hearts - Only headset for experience, can easily be done in hallways or open foyer	- Deliver a realistic experience that can portray the dangers of autonomous weapons in a short period of time - The user can still enjoy the experience in a limited amount of space
What restrictions should be in place for the VR experience?	5	<ul> <li>Avoid sensitive issues (no specific countries/companies mentioned)</li> <li>Gore and blood to a minimum</li> <li>Consider health conditions ex.</li> <li>Epilepsy, light sensitivity</li> <li>Person in VR experience shouldn't move too much, no big gestures needed</li> </ul>	<ul> <li>Make the experience suitable for people of all cultures and ethnicities</li> <li>Factor health issues and medical conditions in the manufacturing process</li> <li>Make movements flawless while the user doesn't have to move much</li> </ul>
What is the best setting for the VR experience?	3	<ul> <li>- Urban setting, battlefield, border control, crowd control</li> <li>- Land sea or air, avoid space</li> <li>- Based in the near-future (a couple of years from now)</li> </ul>	- Add natural settings that the user can relate with
What tone would you like the VR experience to be?	3	- Informative, emotionally engaging	- Allow for the experience to be informative through the experiences and capture the emotions of those in the VR
What message would you like the experience to portray?	4	- Something along the lines of "If we stop together, we will create a better future" or "Prohibit killer robots before this turns into reality"	- Include a uniting message that all users can relate with and stronger the client's stand regarding the ban of autonomous weapons
Who would be the final user of the product?	2	<ul><li>A global french/english speaking audience</li><li>UN ambassadors</li><li>Pro-autonomous weapon persons</li></ul>	- Have the experience supporting different languages such as but not limited to French and English

Should there be several designs for groups with various perspectives or mindsets on this circumstance? If so, what?	1	- Keep it simple - Can be first person or third person	<ul> <li>Make the experience easy for anyone to use and take advantage of its features</li> <li>Add an option to toggle between first and third person point of view</li> </ul>
Why are people opposed to autonomous weapons?	2	- Computers can make errors when deciding what is a threat ex. a person with cerebral palsy or parkinsons (because of their tremors) can be seen as a threat - Even if the robot is "perfect" it is still unethical - Soldiers do not want to be killed by machines, takes away honour, valour, patriotism - There is an ongoing issue with discrimination and AIs when it comes to marginalized groups	- Display the problems that autonomous weapons can have inside the battlefield, and outside of it - Showcase all sorts of ethical implications with AI and the moral dilemmas that comes with using such technology for warfare

#### **Problem statement**

Mines Action Canada needs an informative 2-5 minute virtual reality experience that evokes emotion and conveys the user to take a position opposing the use of autonomous weapons. The experience will not put focus on any specific parties and will be directed towards those who are uncertain regarding their point of view on autonomous weapons.

### **Benchmarking**

There are a variety of different "VR experiences" already on the market. The most popular genres tend to be thrills such as roller coasters and other rides as well as tours of landmarks. There exists a comparatively smaller market for educational experiences that are designed to take advantage of VR's unique capabilities. We think that these experiences would be good for benchmarking since our product needs to be informative. We also want to benchmark some horror experiences currently available because they will provide good examples of emotionally engaging and scary experiences that can be translated to show that autonomous weapons should be banned. Many of these horror experiences, especially the short ones, use methods such as jumpscares and intense gore. Gore is not an option for us due to client specifications, so jumpscares may be a good way to go. Some experiences rely more heavily on creating a tense and unsettling environment. Reviews of such games tend to praise their long lasting emotional impact which is usually caused by a psychological-horror aspect.

### **Conclusion**

Ultimately, the portrayal of customer's issues, restrictions, requirements, and wants are instrumental to the success of the VR. Without specifics, a generalized idea or piece of work won't be created to best engage the audience. Trivial ideas such as minimum gore, avoiding sensitive issues, and having an informative and engaging tone all contribute to what is the best result when manufacturing the VR.