

# 10-10

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Improvements for the future



# DESIGN STAGES

Empathize  
Define  
Ideate  
Prototype  
Test



Empathize

# EMPATHIZE



## MINES ACTION CANADA

Humanitarian foundation whose main cause is the prevention of AI weapons entering military and conventional use

## TARGET AUDIENCE

Representatives and international decision makers who pass policy on the rules of war.

## NEEDS

A virtual reality experience that demonstrates the dangers of AI weaponry



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Define

# Define

## PROBLEM STATEMENT

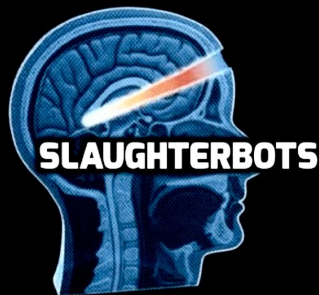
Mines Action Canada needs a short, realistic, and emotional virtual reality experience to demonstrate the dangers of autonomous weapons, in order to encourage immediate measures against their use.

## Benchmarking

“Clouds Over Sidra”

“Slaughterbots”

“Hunger in Los Angeles”



The FUTURE of LIFE INSTITUTE



# Benchmarking

Specifications	Importance	Product 1	Product 2	Product 3
Product Name	-	"Clouds Over Sidra"	"Slaughterbots"	"Hunger in Los Angeles"
Duration	3	1	2	2
Graphic	2	3	1	2
Realistic	3	3	2	2
Emotional	3	3	1	1
Simplicity	3	2	2	3
<b>TOTAL</b>		<b>33</b>	<b>20</b>	<b>28</b>

# Define

Define

Target Specifications

Functional Requirements

Non - Functional Requirements

Constraints



# Prioritized Design Criteria

Needs	Design Criteria	Priority (1-5, 5 being highest)
Simplicity	<ul style="list-style-type: none"><li>- No elaborate storylines</li><li>- No showing actual robots</li></ul>	5
30 to 60 second video	<ul style="list-style-type: none"><li>- Duration of VR experience</li></ul>	4
Not graphic	<ul style="list-style-type: none"><li>- No blood, gore, explosions</li></ul>	2
Simulation shows altered reality	<ul style="list-style-type: none"><li>- Show how people would protect themselves</li><li>- Consider sensor data weapons would use</li><li>- Show how buildings or communities would adapt</li></ul>	5
Recognizable and realistic	<ul style="list-style-type: none"><li>- Time is present or near future</li></ul>	3
Emotional Simulation	<ul style="list-style-type: none"><li>- Show fear, concern, hope, and motivation</li></ul>	3

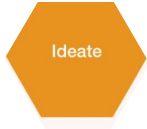


# Target Specifications

Design Specifications	Relation =, < or >	Value	Units	Verification Method
<b>Functional Requirements</b>				
Ease of use	=	Yes	N/A	Test/Feedback
Language	=	English, French	N/A	Consult bilingual group members
# of items on screen	<	5	Sensory objects (subtitles, dialogue, etc.)	Ensure/ Test
<b>Non-Functional Requirements</b>				
Health and Safety (flashing light)	=	No	N/A	Ensure/Test/ Feedback
Realistic	=	Yes	N/A	Test/Feedback
Emotionality	=	Yes	N/A	Test/Feedback
Simplicity	=	Yes	N/A	
Aesthetic appeal	=	Yes	N/A	

<b>Constraints</b>				
Violence	=	No	N/A	Ensure
Video duration	> <	30 - 60	Seconds	Ensure
References to Real World Events/Entities	=	No	N/A	Ensure/ Feedback
Cost	=	0	Dollars	Estimate
Non-offensive	=	Yes	N/A	Ensure

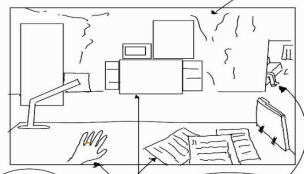
# IDEATE



This is a nightmare. We can't live like this!!!

Visual story & Environment & Infrastructure

Scene 1:



Real modern home

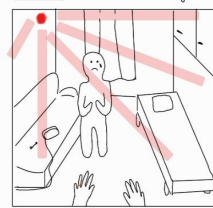
bring to know when you are in the spy day's post

spatial things using his drone is actually in town the city

documents with some news reports they are living in a new zone

a bit of necessity items implies a shortage of them in the city / they try to avoid going out

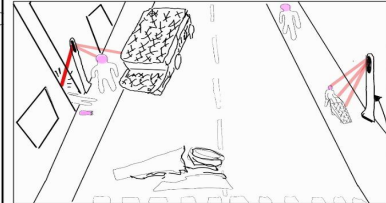
Scene 3:



drone is recognized as a violation and is destroyed  
 +  
 alarm announcement  
 alarm goes off  
 +  
 this punishment is a restriction of their passages  
 +  
 somebody catches his face in deep sleep in thinking "if only I..."

can improve + screen open state

Scene 2: drone pov of the city (north american / european elements)



- face marks to avoid being seen as a threat (given them a space acceptable face)
- pattern that does the same except specifically for vehicle
- decomposed (banned stuff)
- Scanner

Robotic scanning people

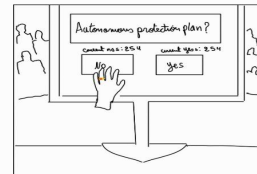
Scene 4



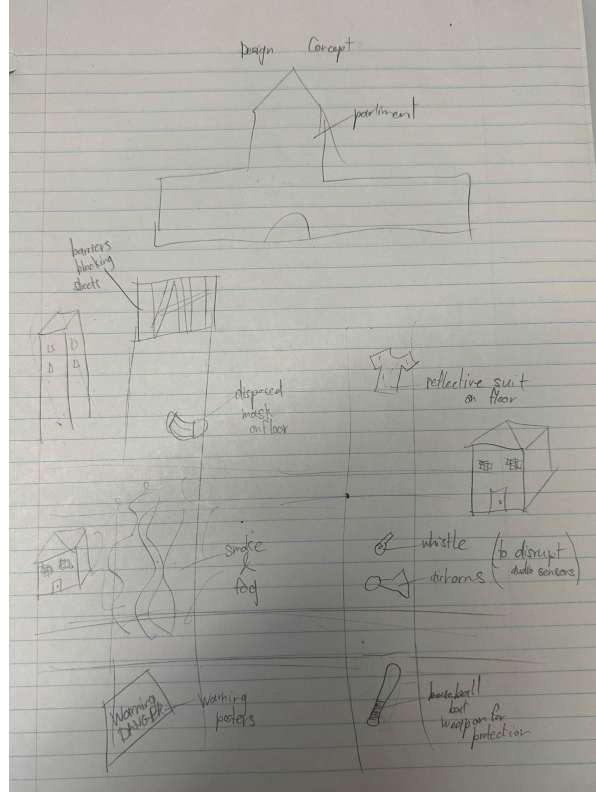
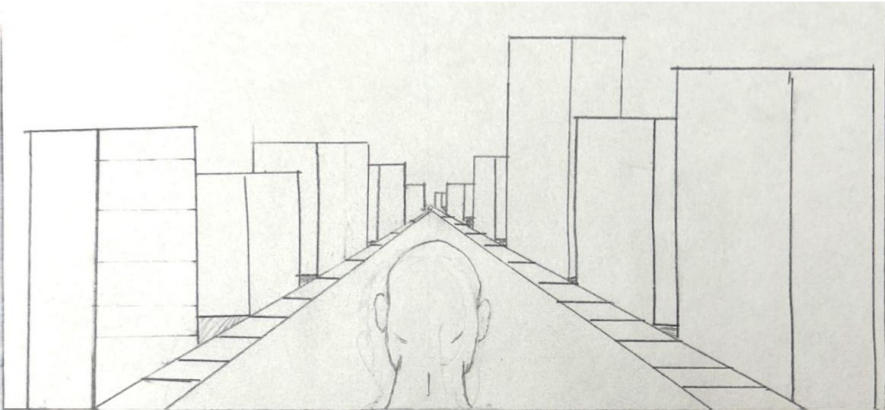
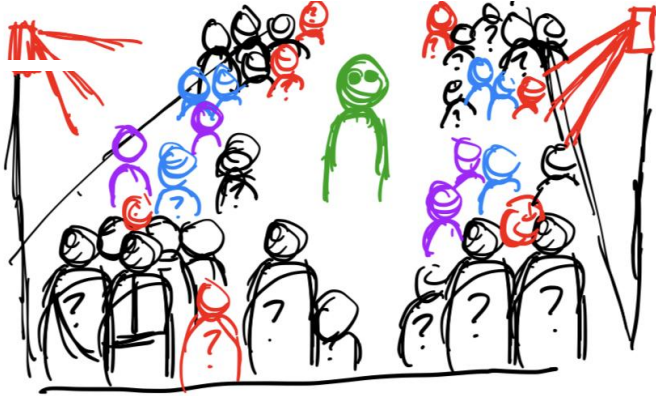
other attendees  
 man and what seem speaks opens cages to conference hall vision still blurry  
 +  
 voting system

vision clears up

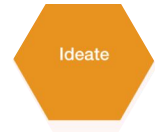
changes his choice to no



# IDEATE



# Ideate



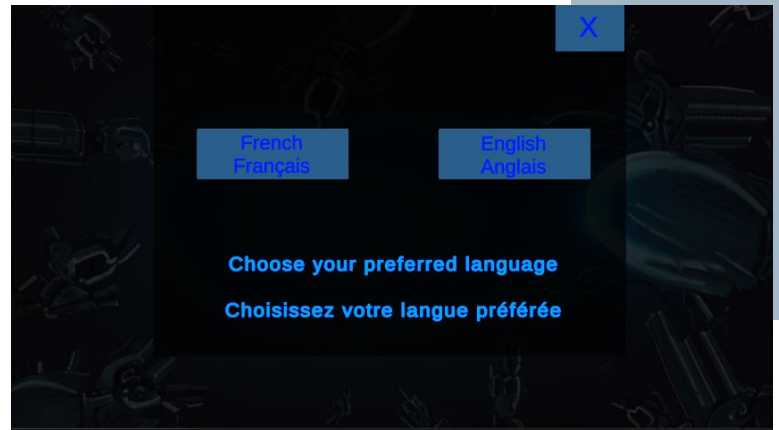
Specifications	Importance	Sami	Fatima	Amanda	Jordon	Mahmoud
Recognizable	3	3	2	1	3	2
Realistic	4	3	3	3	2	3
Simple	5	3	1	3	2	1
Aesthetic	1	2	3	1	2	2
References to real world	3	3	2	1	2	1
Total		47	31	34	35	26

# IDEATE

Ideate

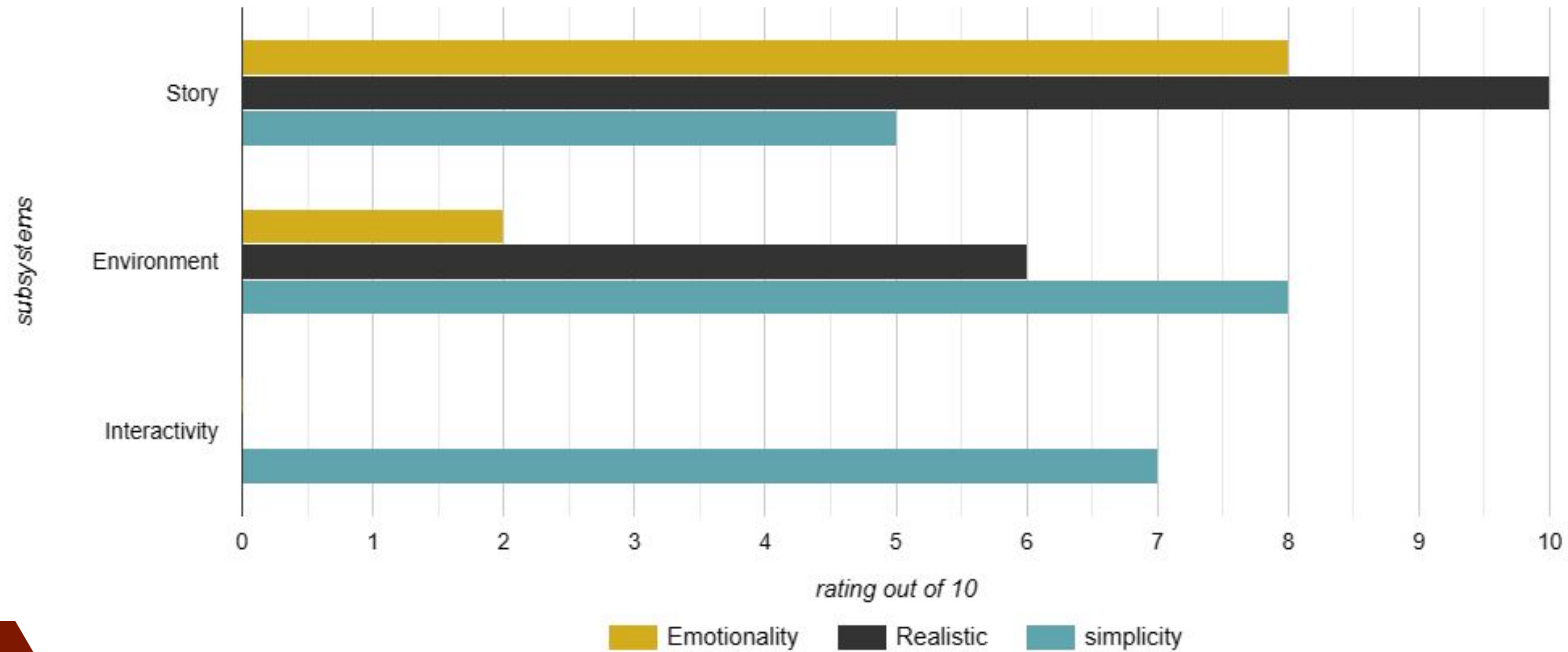


# Prototype I



# Testing Results and Analysis

Prototype performance: User rating on interactivity, environment, story



# FEEDBACK

“

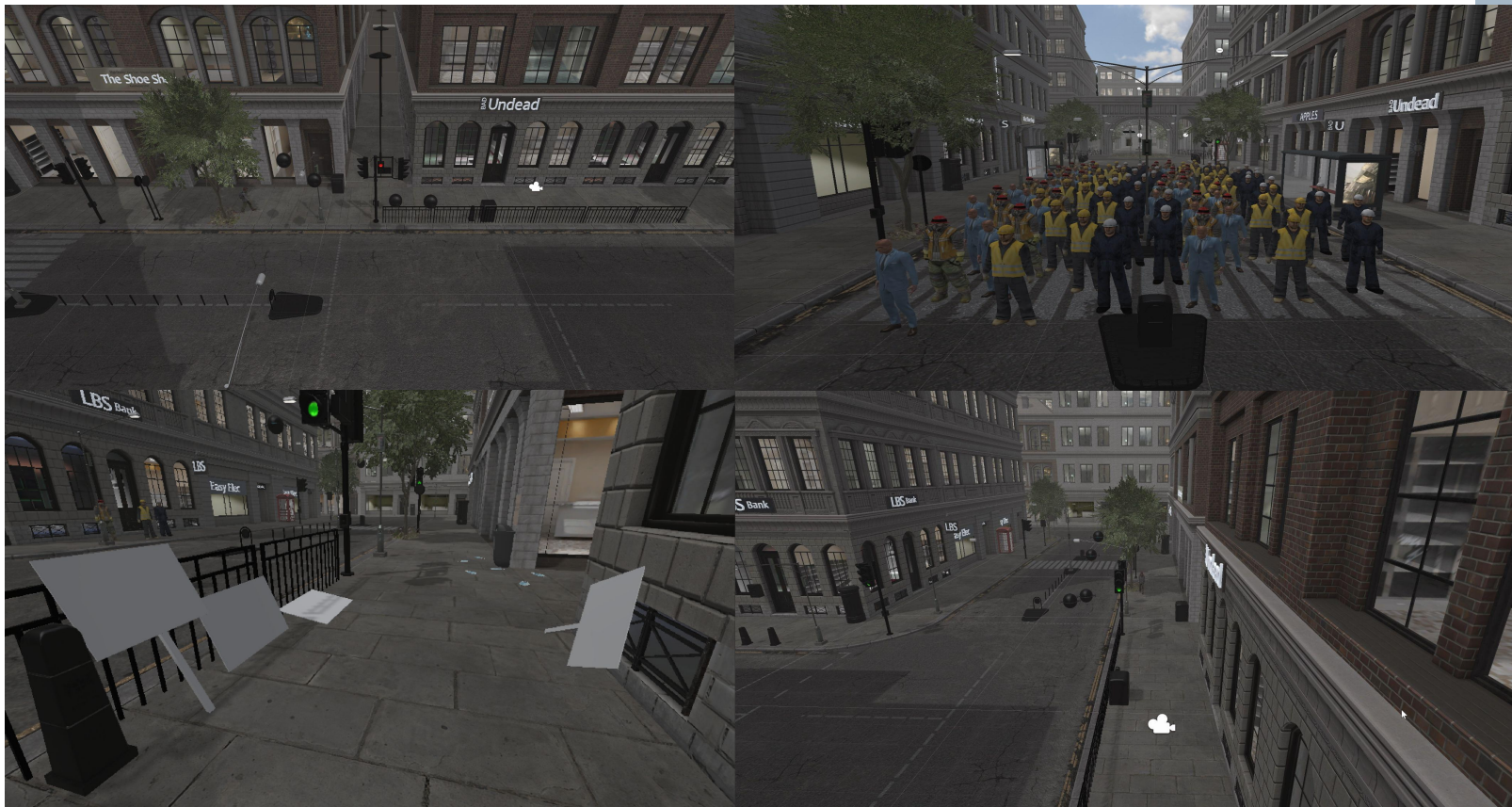
**“Are you going to be able to finish on time?”**

**“How would the narrator be implemented?”**

”

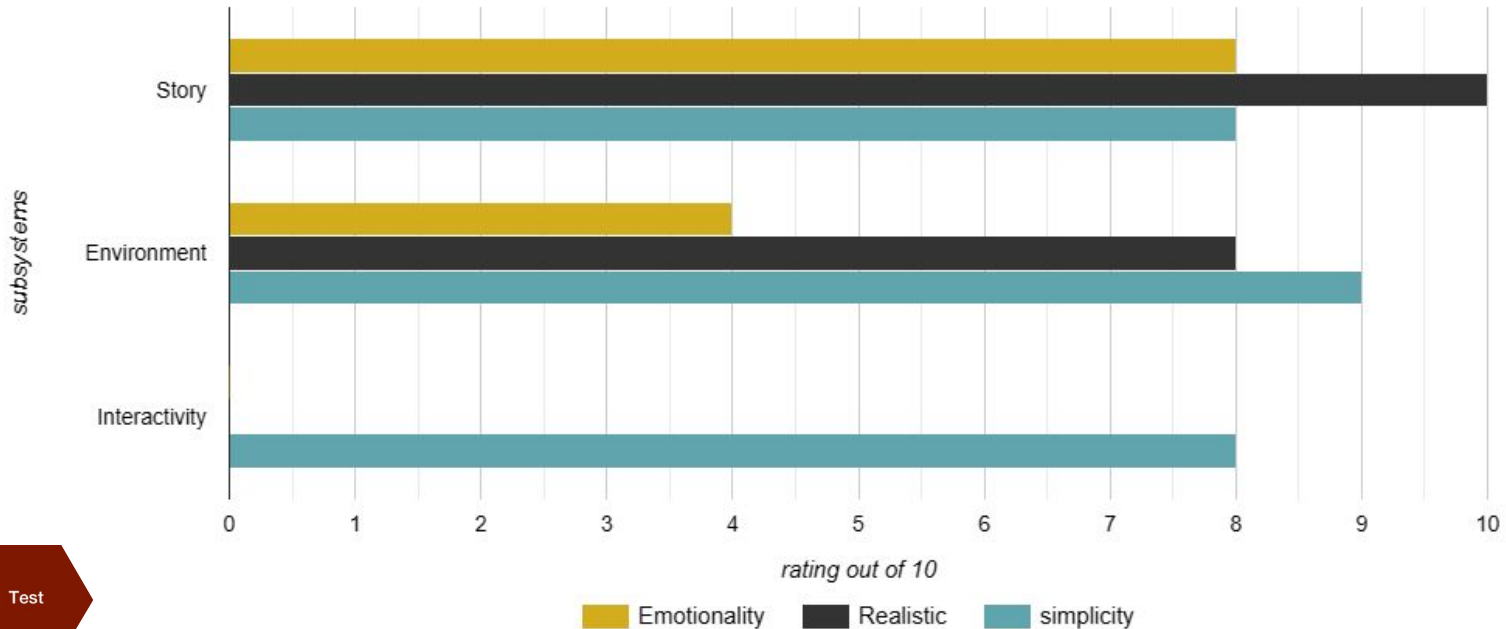


# Prototype II

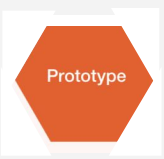


# Testing Results and Analysis

Prototype performance: User rating on interactivity, environment, story



# Prototype III + Testing



# Prototype III



# Conflicts + Lessons Learned



# Next Steps



**Questions?**