The Hong Kong Polytechnic University
School of Design
MDes Interaction Design
SD5530 Demonstration Project
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Presenter: Lee Chun Kong Patrick & CHEN Zishuang Una

Research

1

Background

- Statistics of motion sickness
- Future problems of motion sickness
  - More passengers
  - Semi and full autonomous driving

2

Basic and foundation of the field

Motion Sickness

- What is it
- Different Kinds
- Cause
- Ways to detect
- How to relief

Hypothesis

It is possible to predict the susceptibility of motion sickness with available physiological data from consumer wearable devices

Research Question

What are the motion sickness predictors and how many of them can be obtained by existing wearables?

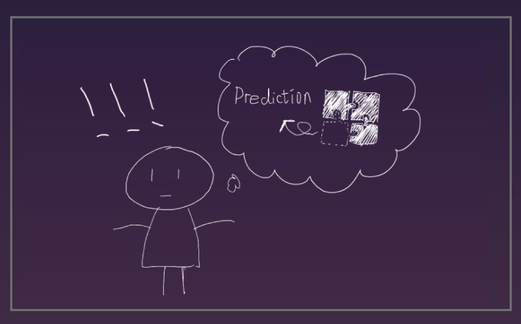
3

Monitoring methods, physiological conditions

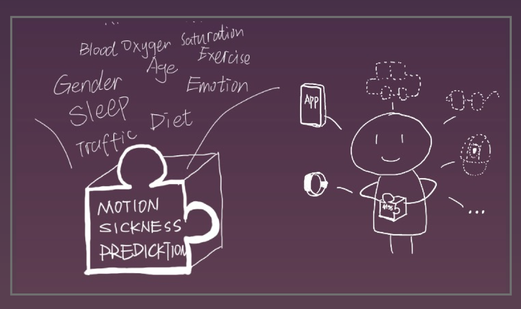
- Physiological condition changes during motion sickness
- Relationship of physiological conditions with motion sickness susceptibility
- Algorithm draft
- Market research
  - Related products
  - Existing products and technologies

Scenario

1. There are a lot of ways to relief motion sickness. But not all of them are free of side effects.



2. The best way is to avoid it from happening, but there are no ways we could predict the happening of it now.



3. Many physiological conditions are found related to motion sickness. There might be ways to predict motion sickness with wearable technologies.

4. Health and activity data from our smartwatches could be used to predict motion sickness.

5. They could make warnings and help us make better decisions to avoid motion sickness.

Predicting Motion Sickness Susceptibility with Wearables

Mentor
Prof. Stephen J. WANG

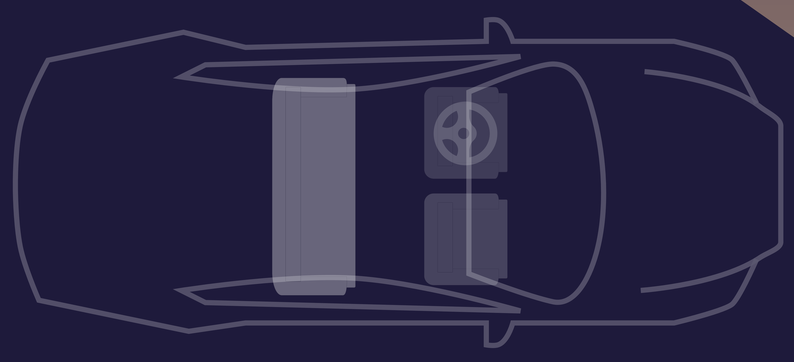
Presenter
Patrick & Una

Emotion
Aerobic fitness
Breathe rate
Fatigue Degree
Menstruation
Pregnant
Race/Culture
Diet
Traffic
Age
Race
Gender
Blood Oxygen Saturation
Sleep
Stress
Exercise

47%

Motion Sickness Susceptibility

47% chance of having motion sickness at the back seat



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