Project Plan Presentation
PIG: Policyholder’s Interactive Guide
The Capstone Experience
Team Auto-Owners
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Project Sponsor Overview

• Started in Mt. Pleasant, now based in Lansing
• Represented by 48,000 agents in 26 different states
• Offer auto, home, life, and business policies
• Member of the Fortune 500 since 2002
• Partner with independent agencies
Project Functional Specifications

• The PIG aims to increase user understanding of loss prevention and insurance implications
• The user will be more informed about insurance aspects of the things they own
• The user will interact with virtual objects through the use of augmented reality
• The user will be able to freely switch between the various interaction modes
Project Design Specifications

• Splash Page with main menu
• Panel Mode
• Full Virtual Object Mode
• Object Detection Mode
Screen Mockup: Panel Mode

Manufacturers recommend changing your oil filter every other oil change to keep things running smoothly.
Screen Mockup: 3D Interaction Spawn Menu
Screen Mockup: 3D Interaction Menu
Screen Mockup: Object Recognition
Project Technical Specifications

• Spatial Mapping
• Marker Tracking
• Object Recognition
• User Interface Interaction
Project System Architecture
Project System Components

• Hardware Platforms
  ▪ Microsoft Hololens 2
  ▪ Computers compatible with software

• Software Platforms / Technologies
  ▪ Unity 2022 LTS
  ▪ Microsoft Windows 11 and SDK
  ▪ Visual Studio 2022
  ▪ Mixed Reality Feature Tool
  ▪ OpenXR
Project Risks

Hololens2 Memory Limitations
- Low memory on the Hololens could limit virtual vehicle models
- Use low-poly models for the vehicles

Lab Computer Memory Limitations
- Limited by memory when using Unity and Hololens Emulator concurrently
- Minimize background tasks and use Unity and Emulator individually

Scalability of Items
- All items should be scalable, must account for UI stretching/compressing
- Establish an anchoring standard for different UI panel types, ensure team members follow the standard.

Developing AR in Unity
- Lack of experience developing AR in Unity
- Read documentation and complete tutorial courses for AR development
Questions?