

# Health & Safety Training Game

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## Aim

The Aim of this project is to create a fully functioning Health & Safety game to test the theory that an immersive learning experience will increase both the rate of knowledge transfer and long term knowledge retention. The game will be designed to allow access via mobile computing devices (laptops, tablets and smartphones), meeting the operational requirements set by Leonardo Helicopters. Through a process of frequent information exchange the final product is forecast to be available for End User testing by late March 2017.

## Objectives

1. Research - Communicate and work with Leonardo Helicopters (LH) to successfully gather sufficient critical information and knowledge to initiate the design of the Base Game application and to understand LH Health & Safety operational requirements.
2. Design - Design of the Games Application by creating several alternative designs for review with LH to assess the 'look and feel' of the Game and ensure its alignment with the Aim of the project.
3. Model Creation - Create and animate several different models for the Game and adapt them to meet emerging End User requirements.
4. Programming Structure - Create an initial code structure for the game to provide a baseline and for future development and reference to assess progress.
5. Prototype production - Assemble initial programming, modelling & texturing to create the first H&S Game prototype, to be sent to LH for validation and amendment prior to production of the final version of the Game.
6. Quality assurance - Test Game code after each stage of prototype production to identify and remove coding errors and inefficient code structures.



Image #1: Overlay UI and beginning of level.



Image #2 Expanded view of level.



Image #4 Example Question in Game



## End Goals

1. Production of a fully functioning Health & Safety game capable of being accessed by a Player using a 'standard' office laptop without unacceptable delay or disorientation.
2. Results that confirm that immersive gaming technology is effective at transferring and retaining Health & Safety knowledge.
3. Research results that confirm the most valuable mechanism to reward Players for successful behaviour.
4. Proof that scanned images of working environments, objects and people can be used to create immersive games that promote Player engagement.
5. Validation of the most effective 'critical path' of activities for the production of immersive training material.
6. Expanding my own knowledge.