## Weekly Activity Log Week 2 - 16/09/2013 – 22/09/2013

#### Overview

* Began formulating idea for project proposal
* Research into possible engine usage
* Developed achievable ideas for project

#### Project Idea

* Cockpit-based space game
* Oculus Rift used to look around a virtual cockpit
* Design considerations:
  + Tracking of OR plus enveloping FoV provides total immersion
  + Focus on Oculus Rift features and implementation
  + Existing or custom engine (simple)
* Basic gameplay:
  + Movement
  + Objectives
  + Combat
  + Simple attacking AI
  + Weapons
  + Interface adapted to Oculus Rift
* Possible Extensions:
  + Graphical
    - Shaders
    - Screen-space effects
    - Lighting and shadows
    - Advanced effects & current trends
  + Procedurally-generated Entities:
    - Planets
    - Nebulae
    - Asteroids
  + Interface enhancements:
    - Targeting using OR tracking
    - Consider user-experience with Oculus Rift itself
    - Projected HUD
    - Interactive consoles in cockpit etc.
  + Gameplay:
    - Better AI
    - Wingmen
    - Missions
    - Subsystems
    - Newtonian-Physics
    - Scripted set-piece battles
    - Capital ships
* Asset considerations:
  + Use open-source 3D models where appropriate
  + Develop basic assets to fill needs
  + Possibly generate some assets procedurally:
    - Marks for programming > modelling etc.
  + Spend more time programming than asset creation
* Research of similar projects:
  + EVE-VR (now EVE: Valkyrie) very similar
  + First Law OR demonstration game
  + Star Citizen in development with OR support
  + Revival of ‘Space combat sim’ genre very current
* Past inspirations:
  + Freespace 2
  + Freelancer
  + Elite
  + X Series
* Oculus Rift research:
  + Signed up to forums
  + Reading Develop industry magazine
  + Online articles detailing OR implementations and expert opinions
  + Recent move of John Carmac as to Oculus VR CTO (Chief Technical Officer)
* Programming:
  + Made C++ program that utilised OR SDK to get information from sensors
  + Printed to screen
  + First step at taking OR input into a game