COSC480 - Giguesaur Project
Students: Ashley Manson, Joshua La Pine, Shahne Rodgers
Supervisors: Geoff Wyvill, David Eyers
Aims and Objectives

Giguesaur Project (User Interface and Game Control)

Ashley Manson

The aim of the project is to have a game where a number of users can use iPads to collaborate in solving a virtual jigsaw puzzle that is projected onto a board using augmented reality. I want to have an intuitive user interface, trying to avoid clutter and make it easy for a child or an adult to pick up the game and start playing.

Objectives (In chronological order)
- Work station and equipment all set up
  - Mac as we will be working with iPads
  - XCode as the programming language we will be using is objective-c
  - iPad for running the game
- Research on any existing projects for virtual jigsaw puzzle
  - Creating jigsaw puzzles
  - Augmented reality/virtual play field
- Build a basic user interface prototype for testing
- Figure out how to make a virtual board to play on
  - Integrate with Server - Making sure that the client (iPads) and server have an understanding of what the board will look like internally, so that the clients can make request or the server can make push notifications.
- Projecting puzzle pieces onto a floor or physical representation of a board (would be simple 2D puzzle pieces), and have the user picking up puzzle pieces and moving them around
  - Integrate with Localization - This would rely on the localisation part of the project as that part would I have sorted the issue of having a physical board or not
- Have a way to join puzzle pieces together - Determine how correctly positioned adjacent puzzle pieces will automatically make any small final position adjustments to be solved

Extras if time permits
- Algorithm for cutting up pictures into pieces that become puzzles
- Make the puzzle pieces appear as 3D objects for more depth in the game
  - Have them be able to stack on each other, hiding other pieces from view