

## AR hockey

### Augmented reality air hockey game for smartphones

1. General – AR hockey app simulates air hockey game between two players. The app uses Qualcomm SDK for detecting marker. Unity3D for the graphics, a pre-made graphic set, Apple's game center for leaderboards and achievements and Apple's Game kit for connecting two iOS devices.
  - a. Air Hockey game example  
<http://www.miniclip.com/games/electro-air-hockey/en/>
  - b. Qualcomm SDK  
<https://ar.qualcomm.at/qdevnet/sdk/ios>
  - c. Game Kit  
[http://developer.apple.com/library/ios/#documentation/NetworkingInternet/Conceptual/GameKit\\_Guide/Introduction/Introduction.html](http://developer.apple.com/library/ios/#documentation/NetworkingInternet/Conceptual/GameKit_Guide/Introduction/Introduction.html)
  - d. Unity3D  
<http://unity3d.com>
  - e. Graphics  
<http://www.fallingpixel.com/low-polygon-air-hockey-collection-3d-model/17963>
2. Game rules
  - a. The goal of the player is to score more goals than the opponent (defending own goal)
  - b. Match ends after 3 min or after player scores 5 goals (winner)
  - c. Points
    - i. For each victory player gets 3 point.
    - ii. In case of a tie\draw each player gets 1 point.
    - iii. Loser gets no points )-:
  - d. Players can get extra 1 point for sharing game result on Facebook\Twitter (even the loser).
3. Controls
  - a. Touch control for controlling the Striker (handle for hitting the puck).
  - b. The beginning speed of the puck depends on the speed of impact with the Striker. If the striker hits the puck fast the puck will fly faster.
  - c. Puck loses velocity with time (flies fast at first but loses speed with time).
4. Leaderboards – using Apple's game center.

5. Achievements – will be defined later

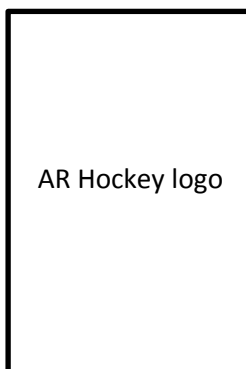
6. Screens

- a. Loading screen – Sonar games (will be provided)
- b. Game logo
- c. Home (will be provided)
  - i. Play – loads camera view
    - 1. Connect (loads Apple game kit)
    - 2. Begin
    - 3. Play again\ Menu
  - ii. Game center – loads Apple Game Center
  - iii. Facebook – loads Facebook API
  - iv. Twitter – loads Twitter API

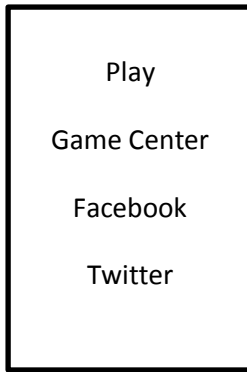
6A



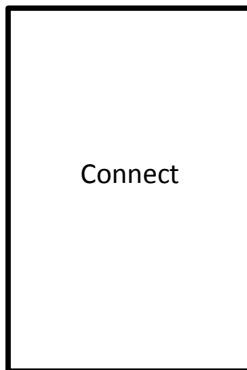
6B



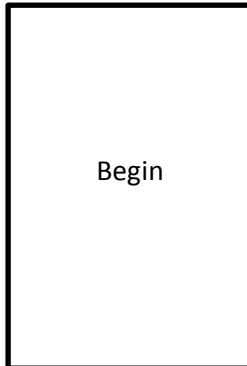
6C



6Ci1



6Ci2



6Ci3

