# Current Trends in Gaming

## Augmented Reality – Week 2

### Context

This sheet is a workshop exercise where you are asked to create something **similar** to what was in the lecture 1 but without a worked solution. Essentially this gives you a chance to make sure that you can use the technology appropriately to attain the course goals.

### Activity

**The Brief**

Okay, so you’ve got a darn fine robot pushing game sitting there on your phone but it’s not exactly going to set the world alight. You know what would? **A ghostbusting game**. A game about busting ghosts. So that’s what you’re going to do today. You can use the sample program from this week as a base for this, but it would be best to start completely fresh.

Here are the requirements that you’re looking to meet. Exact interpretation is up to you.

* Find or create suitable ghost assets. They don’t at all need to be complicated. Slam together three spheres and make them slightly transparent. Done. Add a transparent material to the robot from the lecture, pretend you’re capturing futuristic machine spirits. Fine.
* Create an introductory process in your game where players must wander around their local environment to detect planes. You can disguise it as part of the game. Perhaps they are scanning for paranormal signals. Make their phone beep or flash. Put random figures and numbers in the corners like they’re using some kind of ghost detection equipment.
* Once you’ve got enough planes detected, Spawn a certain number of ghosts randomly around you. Make them different sizes. Don’t worry **too much** about making them fit in with the environment. Ghosts can float through walls after all. You should though try to use the plane information you have gathered to anchor them somewhat in reality.
* Make the ghosts move around. Have them float from their anchor points, move up and down. Rotate around. Just generally be ghosts.
* When the player presses on the screen of their phone, have them ‘bust’ the ghost. You might do this through raycasting (with a graphical accompaniment). Maybe they throw ghost pellets at the ghosts. Maybe they need to lay a trap underneath and make it go off by pressing a button. It doesn’t matter the exact mechanism. What should happen though is the ghost should lose a point of health and go somewhere else. When it has lost all of its health, it disappears.
* Keep track of time. Score is based on how quickly the ghosts get busted.

That’s an honest to goodness AR game and you know how to make it. So go make it!

**Advanced Exercises**

If you get all of that done, then get other people to try it out and suggest features. Consider what you need in order to implement them – if it’s feasible with what you already know, put them in the game.