Gremlin Design Recommendations

- Because the primary challenge in the game is not to fall into the water, having sufficient viewing distance below the gremlin is important. We made a few design decisions based on this: we kept the game in portrait view as opposed to landscape, the camera focuses on a point below the gremlin while he is falling and we also implemented a camera that zooms out more when the player moves faster and when the player is falling (this can be turned off in the tuning window).

- To implement difficulty progression, less zeppelins are spawned as the player's score increases. This way, the player needs to pay more and more attention to avoid falling in the water.

  The problem with this is that it gets harder and harder to score interesting combos. It would be more interesting if players would score progressively larger combos as they advance in the game. The way the game is designed right now, it's working the other way around.

  Solving this problem lies in finding a better spawning system for the zeppelins. Two possible solutions:

    - Decrease the standard spawn rate of zeppelins overall, and add clusters with a high amount of zeppelins randomly spread around the world. At minimum difficulty the amount of clusters would be easy to find but small in size, at maximum difficulty the clusters would be harder to find but much larger in size to allow the player to score huge combos.

    - Zeppelins are still uniformly spread across the world, but the spawn rate fluctuates over time, between maxima that increase and minima that decrease, as the player's score progresses. The result would be a constant moderate amount of zeppelins at low difficulty, and periods changing between high and low zeppelin population at high difficulty.

- Ships were proposed to be destroyable for points but we concluded this lead to a few problems. We did not want an

optimal strategy to be to go for ships only or zeppelins only. If the game was balanced to gain an equal amount of points per time unit regardless of going for zeppelins or ships, the optimal strategy would be to go for zeppelins only because the risk in destroying ships is clearly higher. If ships would give more points per time unit we would take the focus away from destroying zeppelins and scoring combos, which is what the game is designed around. Because of this we think it's better if ships aren't destroyable. However, they can still be tuned to be destroyable.

- To avoid the player choosing to stay high up in the air destroying zeppelins without taking much risk, we added an extra feature that requires the gremlin to have bombs to destroy a zeppelin. Every time the gremlin lands on a ship, his bombs are restored back to the maximum. This feature can be turned off. An extra improvement to the gameplay would be to allow the gremlin to jump onto ships (by tapping, just like it works now for zeppelins), giving him an easier way to get onto ships when he's out of bombs.

- After landing on a ship, it could be fun zoom the camera out and allow to player to chose a direction in which the gremlin is to be shot by the cannon. If the player didn't chose a direction in time, the cannon could shoot the gremlin in a random direction.

- Combos can be hard to predict further than a few steps. Perhaps a tracing beam (like in Peggle) can be added which goes from zeppelin to zeppelin, starting at the currently controlled zeppelin, that indicates which zeppelins will be hit in the combo.

- For players who prefer not to play for highscores the current world could be a very good base for a level based game. Each level could be individually designed with a specific mission to complete to advance to the next level. Examples of these missions could be:
    - destroy x zeppelins
    - destroy x ships
    - destroy a specific boss type zeppelin
    - score a combo of at least size x
    - destroy x zeppelins of a specific color without destroying any other colored zeppelins
    - destroy x zeppelins without causing any combos
    - …

- Air control could be implemented by using the accelerometer, instead of (or as an addition to) flick air control. This could be more intuitive.

- If the system with the bombs is used, there should be some additional visual feedback when the player tries to blow up a zeppelin but has run out of bombs.

- When the player is controlling a zeppelin, he should not be able to steer into the sea and die. Instead, the player will die when the zeppelin ran out of gas.

- If the system with the bombs is used, a zeppelin should not explode when it cannot be moved any more by the player. Instead, it just disappears. In the final game, this could be displayed like burning, but without an explision. If the player leaves a 'burning' zeppelin, the zeppelin remains like that. Alternatively, it could automatically be repaired over time as soon as the player left the zeppelin.

- There should be an indication of which combos have already been made, so the player can try to make a certain combo in order to gain a new life. A simple implementation would be a list of combo numbers at the right of the screen, where gray numbers represent combos that have already been made.

- Overall our thoughts on the game are that interacting with the world and controlling the gremlin deliver a fun experience, but some work still needs to be done on difficulty progression and game balance. We would suggest nailing down these two very important concepts before implementing extra features.