GUI Report

When originally designing the interface, playability was kept in mind. This meant that attributes of the Smew which were vital to gameplay (current health, stamina, remaining power-up time, a minimap, the objective of the current level and the current score). Our main goal in displaying this information was to make it as obvious as possible, so as to avoid confusion regarding major gameplay mechanics.

As mentioned in the previous paragraph, playability was a major factor in the GUI design. We believe that the quality of graphical elements in the game have a big part to play in this, leading to the following decision:

> Assets used by the game have been made in a pixel art style, giving the game a retro feel. In order for the game to look good visually, all assets used had to be consistent in both style and resolution, a problem made easier to solve by the art style used (less variation in the sizes of assets made this easier to manage), leading to the choice of using 32×32 textures for map tiles and moving sprites of similar size (varied depending of in game scale).

G5 of the Requirements required us to have a 'health' system. We decided to represent the player's current health with hearts located on the bottom left corner of the screen, where each heart represents 2 health points. The justification for **G5** was to provide a challenge to the player as they progress and encounter danger, so we felt that this representation would be better than using a health bar as it would be easier to estimate how many more hits the player could take before they died. We also felt that acquiring a whole new heart in the game is more visually clear than a slightly longer health bar which would give a better sense of accomplishment.

C2 states that there are three distinct movement modes, in which one of them is 'flying' as mentioned in detail in **C5**. To show this to the user, the player's stamina is to be represented by a yellow bar in the bottom right corner of the screen. This automatically decreases when the player decides to fly and once empty, the player can no longer do this action until the bar has filled up again (Through automatic regeneration). This reflects the justification for **C5** which states that if this action was constantly available, there would be no reason to use any other movement. We chose the colour yellow because it is a fairly neutral colour in-game and there is no convention for stamina. We felt a bar was the best way of representing this because progress along the bar can be gauged, clearly showing how much time is remaining in-flying, or how much time is left before this ability is restored again.

G11 states that the player should be able to obtain distinct 'powers'. A blue bar is located on top of the stamina bar in the bottom right corner. This bar shows how much time is remaining for a power-up effect, after one has been acquired. When a power-up has been picked up by the player,the bar starts to empty until done, when the power-up's effects are no longer active. As with stamina it was felt a bar was the best way of showing time because it is a clear representation of continuous countdown. It is coloured blue to differentiate it from the player's stamina and the background.

I4 requires a minimap on screen. The central bottom position of the window fit best for this, since the player would look at it often for navigation. The minimap tells the player if there are obstacles in the vicinity through bright high-contrast squares on the map. These need to be easily visible against the background.

The player's objective for the level is located in the top left corner of the screen. This corresponds to **I5** of the Requirements, stating that the current objective will be displayed at all times on screen. The objective is printed in whole so the user can clearly see what the win condition for that level is, at all times during play, addressing **I5**.

Finally, **G4** requires the game to have a 'point' tracking system, whilst **I2** states that the obtained points will be displayed at all times. To address this, the current score of the game is situated in the top left hand corner of the window under the objective, represented by an integer. This is the clearest way of presenting the information, but is not needed to be prominent, since the player is not checking it often. An abstracted point representation could be confusing and unclear.

As a part of Assessment 3, additional features, and therefore additional assets, had to be added. As discussed above, it was decided that the art style of the game should remain consistent, for the sake of player experience. For this reason, already existing assets were used as much as possible, with many newly added items simply being recoloured or resized versions of assets already present in the game:

- New menu screens were implemented using buttons which had already been produced by our predecessors.
- The new ranged enemies added made use of recoloured existing goose sprites, with the addition of a gun.
- The "mecha boss" from the final level, similarly to ranged enemies, made use of recoloured existing goose sprite, but with added scaling.
- Tile assets such as water and rocks were recoloured paths and bushes.

For this assessment we had to create more levels to keep to the requirement that states we need 8 distinct rounds **G1**. When making these levels we had to think about the different type of main objectives we are going to implement into these rounds, these include the new objectives of having to kill a certain enemy to progress and also having to survive for a certain amount of time. With these new objectives we have at least 2 or more types of objectives.

When designing the remainder of the levels, the main thought was to have a level for each college but once this was completed we realised there was too much similarities between some levels which lead to us designing levels using more unique places in the university like the Library and Quiet Place to fully comply to the requirement of distinct locations **G1**.

When designing the survival level, we thought it would be more interesting to make it more of a maze to make so you need to move around and you have to think about where you are moving for the remainder of the round to survive. This is shown in the "Quiet Place" and "Library" levels with the distinct layout compared to all of the other levels, which truly fits in when showing the different types of objectives **G2**. This layout also once seen once, you can tell that it is a different type of objective to the standard "find the flag".