Game Design Document: AerobatTricks! (in-progress)
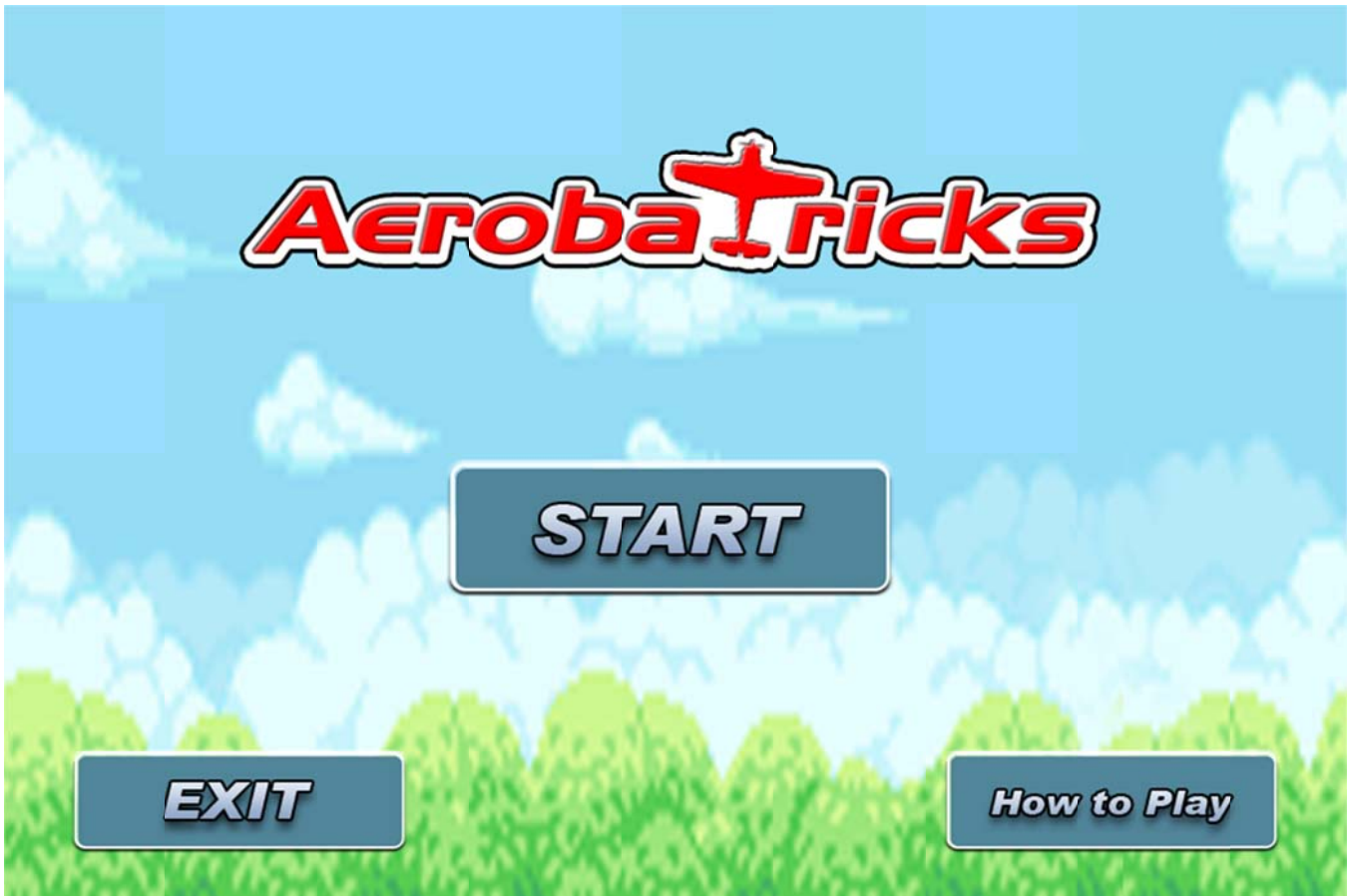
Summary:

Designed for use on mobile devices, AerobatTricks allows you to use your mobile device as the plane's control stick to fly your aerobatic plane through as many rings as possible while avoiding obstacles in the foreground and background while attempting to get the highest score possible.

Start-Up/Title Screen:

Once the game is launched, the logos for all necessary companies and products or licenses will be displayed for a specific duration of time. The screen will then fade to black and will return showing the title screen with the Aerobatricks logo with the background scrolling behind the logo and prompts. There will be 4 prompts on the screen, START which will take the player to the Aera Select Screen. There is EXIT, which will exit the game and take the user back to the iPhone dashboard. And there is How to Play, which will take the players to a series of screens which depict images and written descriptions on the basics of how to play and win at AerobaTricks.

Concept image of the Title Screen
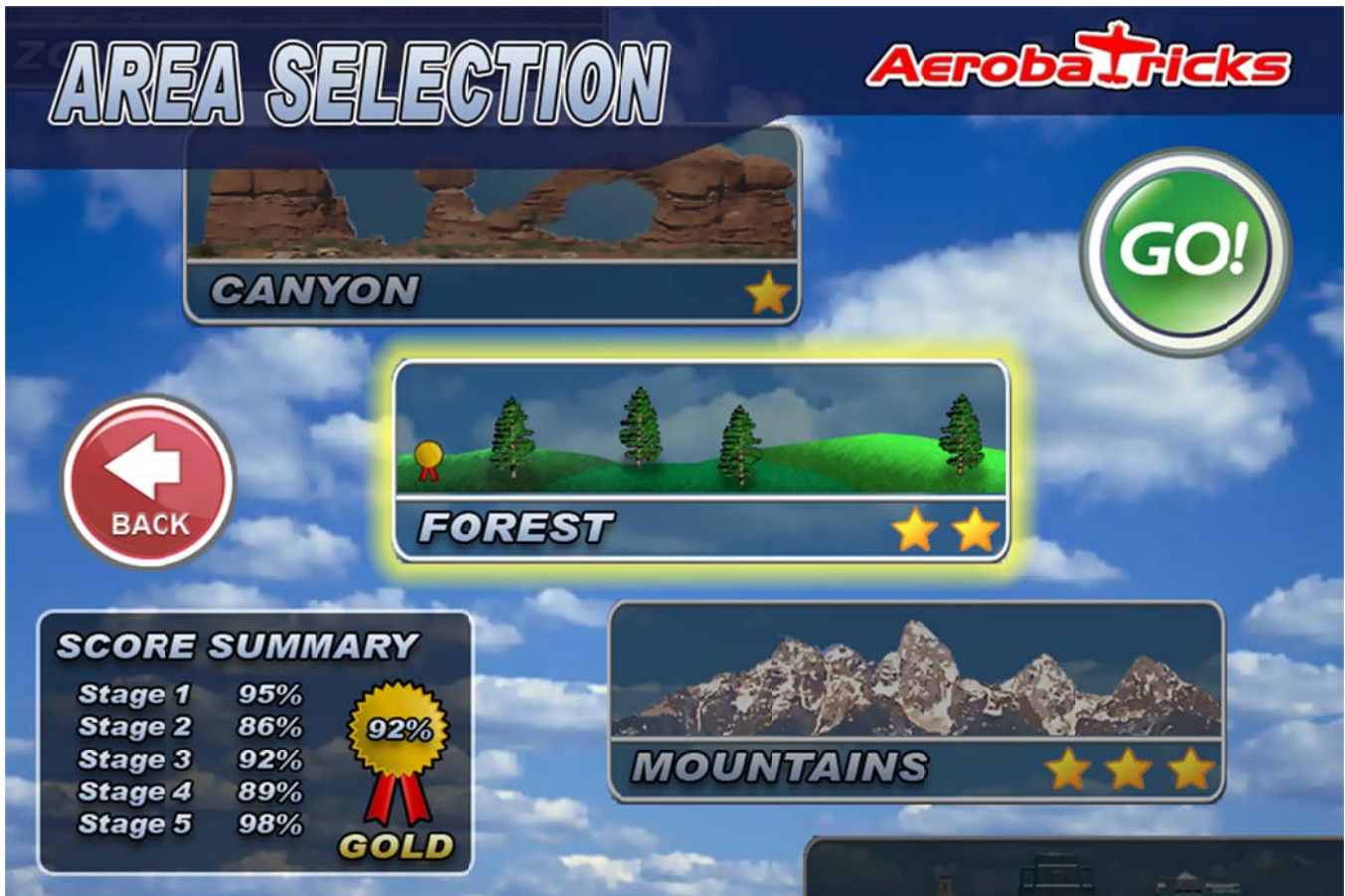
Area Selection Screen:

In the Area Selection Screen, the player can choose which Area they want to fly in. The player can use the touch screen to slide through the different Areas available. The Area highlighted in the center of the screen is the player's choice and will be

represented with an outline and be brighter than the other Areas. The background of this screen will be a looping animation of clouds passing by (Animation will formatted to be in the most-applicable format for this situation). In the bottom left corner of this screen will be a region that displays the current scores for all stages within the selected Area. There will also be a ribbon icon representing a bronze, silver, or a gold medal, based on the average scores for all stages within an Area. Initially, no ribbon will be displayed until an Area has been cleared and the scores will be left empty until they have been passed. The Area icons themselves will show the Area's name, difficulty represented in stars, and an award icon in the bottom left if one has been awarded. There is a back button located above the score summary box on the left side of the screen. This screen also has an icon in the upper right corner which will say READ? When pushed, which it will then count down from 3,2,1, GO! If the player touches anywhere on the screen during the countdown, it will stop and remain on the Area Selection Screen.

Area 1 is the only available option at the start of the game. Others can be unlocked through completing levels. Each Area has unique background scenery, musical theme, and challenges.

Each Area will consist of 5 different levels. The difficulty for the levels increases progressively with the addition of more rings in increasingly complex patterns and by adding obstacles in the Stage that must be avoided. Weather effects like Fog or Rain may be used to increase the challenge in later levels.

- Areas are like worlds; each one offers a unique theme and challenge.
- Area 1 will be the tutorial zone. Here we will introduce the basics of collecting rings and controlling the plane using motion gestures to avoid simple objects. Later stages will introduce background and foreground objects the player must avoid and more complex obstacles.
- Area 2 and 3 will continue to increase the difficulty and complexity of the Stages with increasingly complicated obstacle avoidance, ring patterns, and foreground to background transitions.

Concept image of Area Selection Screen

Stage Selection Screen:

After the player leaves the Area Selection Screen, they will be taken to the Stage Selection Screen. It will be very similar to the previous screen, except that the selections are now individual stages within that Area. The background will show a static image of whatever area was selected previously (A Canyon background if the canyon Area was selected, a Cityscape if the city Area was chosen, etc). The region in the bottom left is still displayed, but will now show a different set of statistics based on the player's previous performance in that stage.

The individual stage icons will show the stage number, the difficulty of that stage (represented with stars) and the player's medals (if they've earned one) and the current top % achieved by the player. In the same area will be a display showing the top scores of other players who have completed this stage. Having it display the player's friend's score(via facebook, email contacts, etc) is also something that could be displayed here. As with the previous screen, once the player hits the READY button, the countdown will commence and the player will be taken to the start of the selected stage.
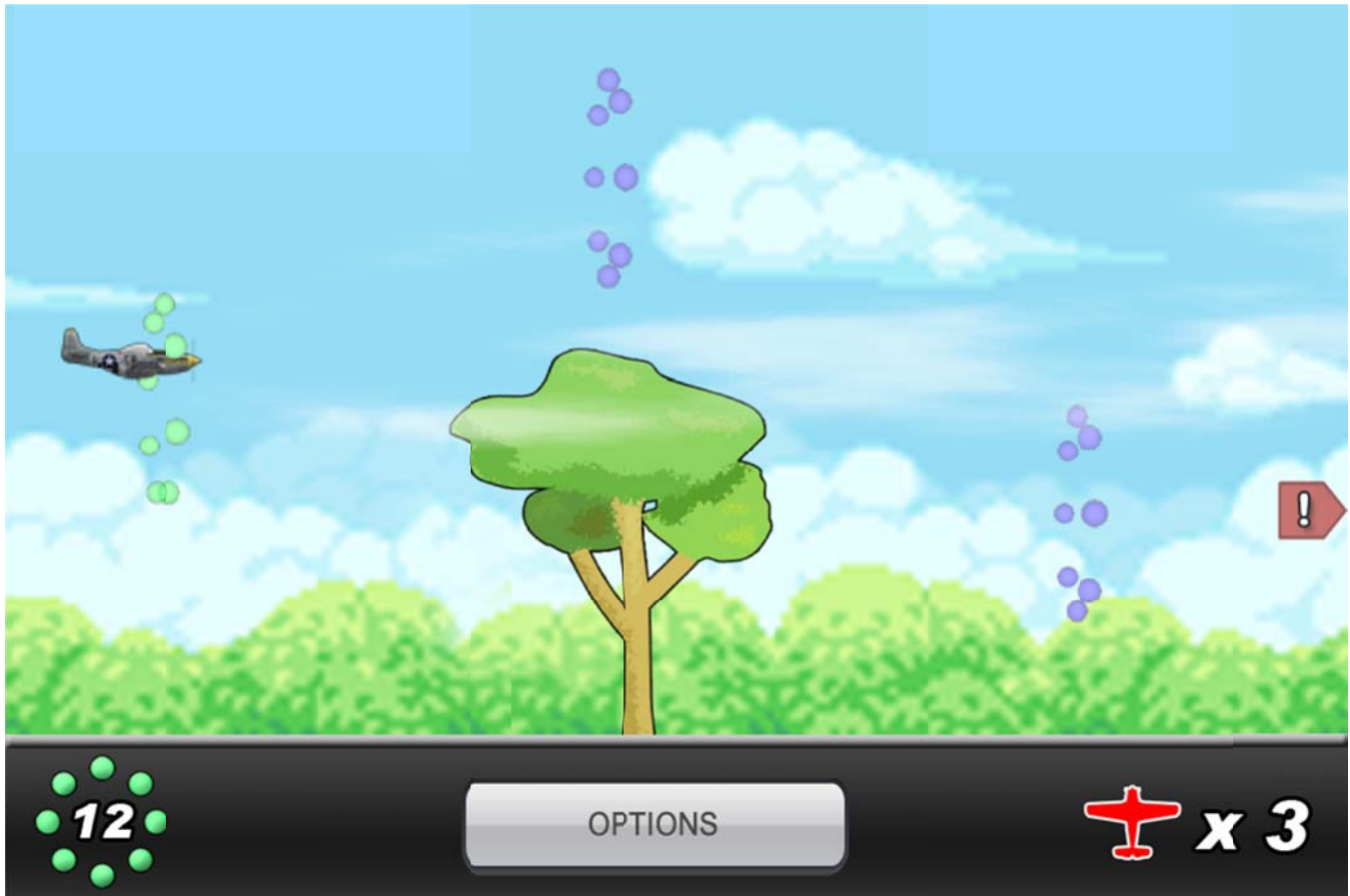
Concept image of Stage Selection Screen

In-Game:

At the start of a Stage, the screen will immediately dim. The player's plane and the level will be visible in the background, but the stage will not have started yet. With the screen dimed, the player will be prompted to hold the phone in a neutral position and an example diagram will be shown. (This is so to make certain that the phone and player are in the correct position to play the game). Once the player aligns the device as shown in the diagram, the display will count down from 3,2,1 and the Stage will begin.

The player is represented as an aerobatic plane on the left side of the screen will appear to progress through the level at a constant pace. The player's plane stays in the same X location on the screen while the level scrolls past them. The player's goal is to fly the plane through as many of the rings found on the level as possible while avoiding obstacles. Obstacles can come in a variety of forms; Trees, hills, bridges, buildings, etc. The player will have to either climb above or below the obstacle to avoid them, or in some cases the player may have to move the plane into the background or foreground.

Concept art depicting gameplay elements

The first stage of the game will act as an entry level to teach the player the basics of playing AerobaTricks. In the tutorial, the game will pause at certain points in the stage and the screen will dim while the player is given instructions on how to avoid obstacles and control the plane. Once the instructions are done, the screen will return to normal after a 3,2,1 countdown (similar to the calibration prompt described earlier). – NOTE: If this increases the project's score too much, the tutorial interface may be removed and a "How to Play" button will be placed on the title screen that will instruct people how to play AerobaTricks. For the first few stages, the game will assist the player by warning them of upcoming obstacles that are still off-screen. This will be happen by a caution icon on the far right of the screen, located vertically where the obstacle will appear. The icon appears about 3 seconds before the object will come onto the screen, but this event does not pause the game or dim the screen like the tutorial instructions.

Another key maneuver that is crucial to AerobaTricks will be transitioning from the background to the foreground and vice-versa. When the player shifts from foreground to background, the airplane performs a quick animation transition to the background and objects on the foreground layer will become semi-transparent to let the player see what they are doing. Conversely, if the player is in the foreground, the background layer will appear slightly out of focus or blurry, but will shift into focus when the player enters the background level.

At the end of the level will be the "Finish Line", which is depicted as a giant ring that the player must fly through. As the player passes the finish line, fireworks will go off to congratulate the player on passing the stage and the player's plane continues off the screen. Then the screen transitions to the Stage Results Screen.

The Stage Results Screen will have a similar overall layout to the Stage Selection Screen, including the "Ready?" button and background image. On the screen will be two boxes with information. The main box will display the player's score information and is referred to as the Stage Summary box. In this box will be a tally of how many rings the player collected and how many of the obstacles in the stage they avoided. The percentage rating for how well the player scored will be displayed below that, along with the player's previous best rating on that stage (if applicable). To the right of the rating percentage is the icon for any medals that were achieved. The player can receive a bronze, silver, gold, or platinum medal, depending on how high their percentage is.

To the right of the Stage Summary box is the Scores Box. Here will be a list of the top scores for other players across the world. By touching the arrows next to the title of the box, the player can change it to only display their friend's scores. If the player gets a high score their name will show up highlighted on the leaderboard. Once the player hits the "READY?" button, a pop-up will ask the player if they'd like to submit their scores to the leaderboard. They have the option of choosing Yes or No and upon making their selection, they will be taken back to the Stage Selection Screen, where they can choose another stage or return to the Area Selection Screen from there.
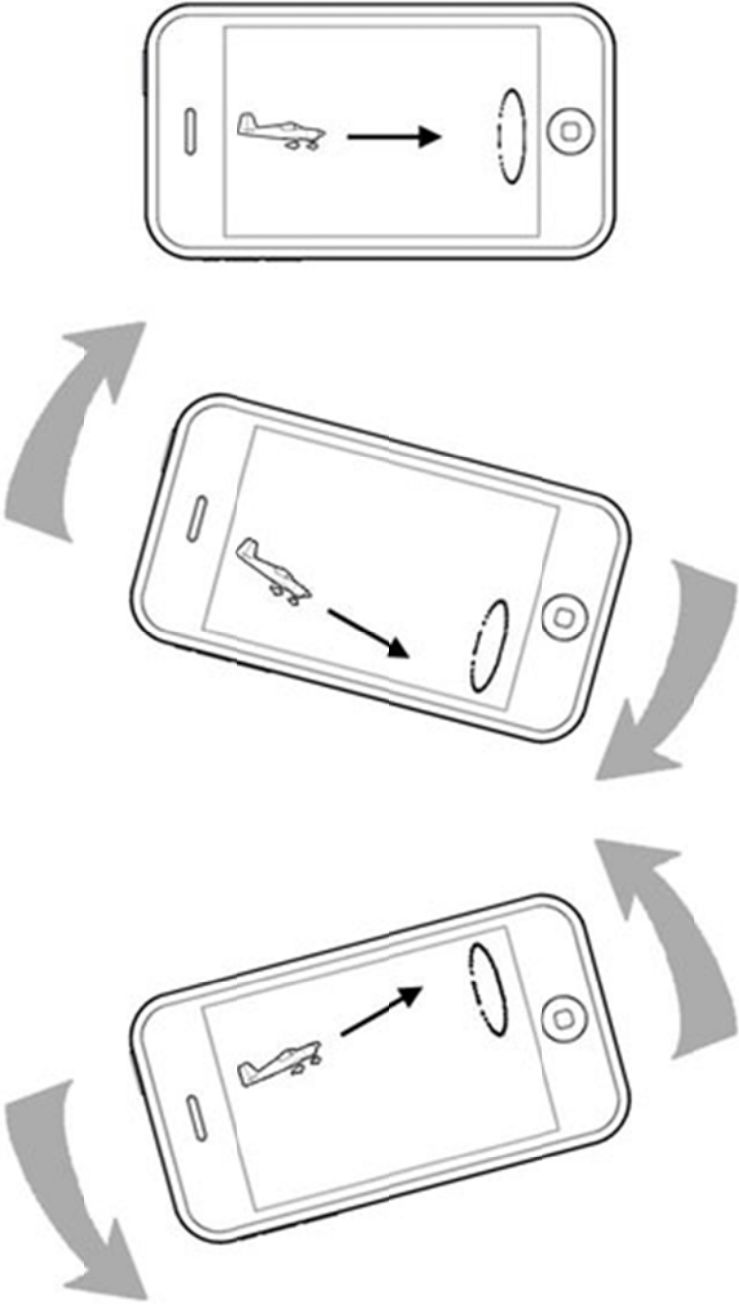

Concept image of the Stage Results Screen

Controls:

The player can control the plane using the following gestures.
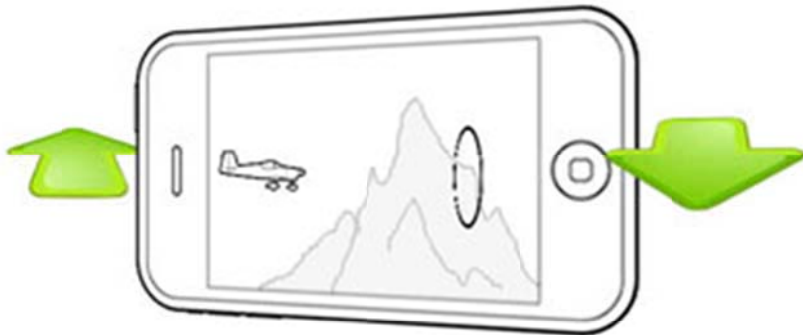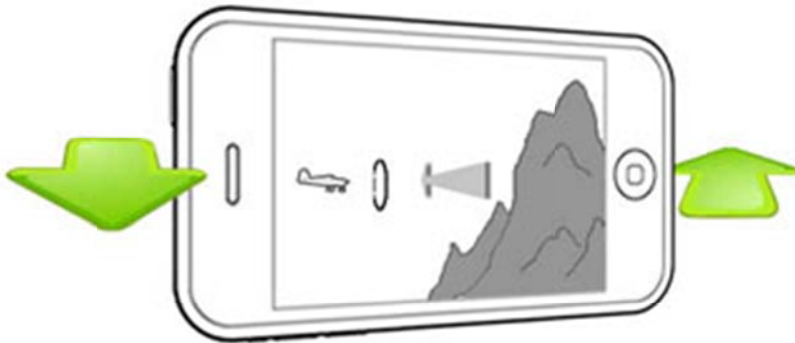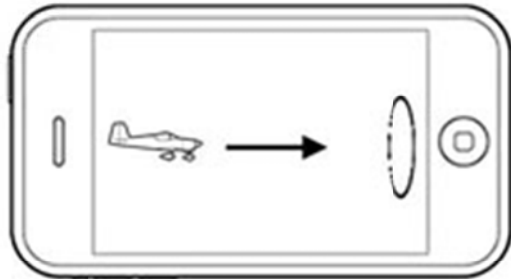
Move the plane Up and Down:

Often the player will need to move the plane to reach rings or avoid obstacles. To make the plane climb up and down, tilt the device clockwise or counterclockwise.

Move the plane to the background or foreground:

Some obstacle cover the entire height of the level and the player must shift to the background to avoid them. To make the plane move into the background, push the right side of the device away from you while pulling the left side towards you. To bring your plane back into the foreground, perform this gesture in reverse.

Scoring:

The player is rewarded with a point for each ring they pass through. This number will be shown in the upper left corner of the screen.

Rings:
The player's primary goal is to fly through as many rings as possible. Each ring will reward 1 point and will chime when successfully flown through.

Obstacles:
If the player collides with an obstacle, they take 1 point of damage. After three hits, the player's plane crashes and they must restart the level from the beginning. Damage will be factored into the final score tally at the end of each stage and Area.

Stage Score:
At the end of each Stage the player's total rings, combo and damage are calculated to give them a rating. The highest possible score can only be achieved when the player takes no damage and collects every ring in the stage.

Area Score:
This score is a summary of all the Stage Scores in an Area. The same judgments apply to the Area Score that are applied to the Stage Score. If a player gets every ring and avoids all obstacles in each Stage within a Area, then they can achieve a perfect score for that Area.

Post-Game/Extras:

After the player clears a Stage, they will be shown their score and will then proceed to the Stage Select Screen. Here they will have the opportunity to retry the previous Stage or, if they cleared it, continue on to the next Stage. The Stage Select Screen is also where the player can choose their desired aircraft and paint scheme, as well as BGM in Free Stage Mode.

Free Stage:
After completing all Areas and Stages, the player will unlock the Free Stage Mode. In this mode, the player can select any Stage they want and customize the level by choosing any aircraft they may have unlocked, the aircraft's paint scheme, and the BGM that plays during that level.

Paint Schemes:
If the player gets a perfect score on a Stage, it will unlock a new paint scheme for their airplanes. This only happens with a perfect score on a Stage.

Aircraft:
If the player receives a perfect score for an entire Area, they will receive a new aircraft as a reward. This aircraft will be selectable from the Stage Select Screen once unlocked.