

Project Proposal

Name of the Game: Bee-ing around

Game creators:

Adrian -Programmer

Karen - Art

Rifa - Storyboarding and sound



Overview of the Game

Bee-ing Around is a single player, location-based game where players physically explore their neighbourhood as their in-game avatar, that of a worker honey bee, mirrors their movements in the game. The honeybee is on a quest to visit all of the flowers and return safely to the hive with nectar whilst avoiding predators and hazards. This game is suitable for all ages but requires navigating a map as well as safely and comfortably walking up to 3 kilometres in one's surroundings.



Game Objectives

The game objectives include a combination of exploration, collection and survival, as such, fit in the adventure genre described by Fullerton (2014). The player, as the worker honeybee, needs to walk around in search of all the flowers in their neighbourhood while avoiding predators and hazards. Each flower a player visits will result in points. Bee-ing around falls into the general objective type of 'capture' - to collect units while avoiding being captured (Fullerton, 2014). Additionally, the player must remember the location of the 'special' flower relative to the hive for a score multiplier in the end.



Educational Merit

Reading a map to discern location and distance is a fundamental component of game play of Bee-ing Around. Therefore, map reading skills and spatial awareness can be learned.

Through the narration of the game, players will learn about how bees survive, what threatens them, and the role they play in the environment.

The experiential element, where the player assumes the role of a worker honey bee, may compel the player to reflect on how their movement and actions as a bee can impact the environment, which in turn, can encourage environmentally friendly behaviour in the real world.



Story

The story of the game will be narrated throughout the game.

The game starts with the player's honeybee alone, and located outside of a bee hive. The narration will indicate that the worker bee and the queen bee are the only survivors from a lethal disease that wiped out the entire colony. The queen bee's job is to reproduce and lead the new colony, while the worker honeybee (the player) needs to fly out to collect nectar to feed the larvae in order to form a new colony. Due to global warming and environmental encroachment, flowers are scarce and dangers are lurking in the neighbourhood's corners. And so, the honeybee's heroic journey begins!

Throughout their journey, the story will develop and be made relevant from trigger events such as visiting a flower or succumbing to a predator.

The end of the game is dictated by returning to the hive with nectar, performing a bee dance for the baby bees, and narration explaining how the honeybees journey has affected the hive and nearby environment.



Game Elements and Characters

The worker honeybee is the only playable character. The worker honeybee is the protagonist of the game and story. It comes with three lives, represented with heart icons on the screen.



The Queen Bee, larvae and baby bees are non-playable characters and are not elements for gameplay but portray a significant role as story elements.



Predators and hazards are the antagonists of the game and story. They are game elements that impede the honeybee. Predators and hazards also play a significant role in the story of the game. Some predators and hazards include:

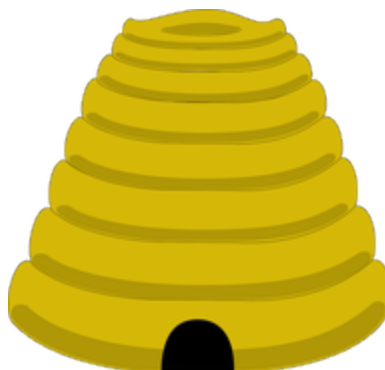
1. Bears
2. Birds
3. Humans holding pesticides
4. Cars
5. Wildfires
6. Heavy rain
7. Heat waves



Flowers provide nectar for the honeybee to collect and return to the hive. There are a set number of flowers in the game.



The Hive is the starting and end location of the game. It also plays a significant role in the story.





Game Mechanics and Rules

Starting the Game

A player can start the game by stepping outside their house, enabling their device's location services and GPS (disabling battery saver mode which limits location updates), and then can start the game.

Once the location has loaded, the player's current physical location will be marked as the hive which is the starting and end point of the game. A set number of flowers, predators, and hazards will be randomly spawned within 800 meters of the hive. This is the only time that flowers, predators, and hazards will be spawned.

Control

The only way to control the bee (the player's character), is by physically moving. Technically, the player's device's GPS will determine the bee's orientation and movement.

GPS data can have an error of up to 10 meters, so game mechanics will be mindful of this restriction with leeway for the player contacting other elements.

Progression of Action

Players are free to navigate their environment and encouraged to find flowers. Once the player touches a flower, the player will automatically collect nectar and the flower will disappear from the map. Each flower visited will result in 10 points.

The game will have a maximum of 25 flowers for a total of 250 points.

One of the 25 flowers is 'special' and is characterized by being visibly extravagant and unique. The player must recall where this flower is, in both direction and

distance, relative to the hive at the end of the game.

Note: visiting a flower and collecting nectar is the exact same game element. The nectar is what bees collect from the flowers. Although it is confusing we wish to keep both terms as to stay true to nature.

Conflict/Challenge

Conflict comes in the form of obstacles. These obstacles are predators and hazards that the player, as the bee, must avoid.

The player receives three lives at the start of the game which are represented with icons on the screen. The player will lose one of their lives when they come into contact with a predator or hazard. Upon collision with a predator or hazard, that particular predator or hazard will be removed from the game.

Once all three lives are lost, the player will be prompted to restart the game or continue with zero points. If a player restarts the game, then their lives, points, and starting location (the hive) will be reset. Alternatively, the player can continue playing the game, accepting zero points, and without any lives or predators/hazards. This may appeal to players who want a relaxing and exploratory game or those who want to conclude their game at their original starting point.

Each remaining life at the end of the game is worth 50 points for a total of 150 points.

Ending the game (Resolving Action)

A player can choose to end the game at any point by visiting the hive (the starting point), and choosing to end the game. At this point, the flowers the player has collected and the remaining lives are final and the points are therefore calculated.

The last task of the player is to perform the 'bee dance'. The player is prompted to point their avatar in the direction of the special flower and write on the screen the distance to the special flower. Depending on the accuracy of their estimate, they will receive a score multiplier ranging from x1 - x5. The best possible score to strive for in each play attempt is 1250 points.

A player is deemed successful if they return to the hive after visiting any number of flowers and have at least one life remaining. Bee-ing around is inclusive as a player can continue to complete the game without any lives remaining even though this is a lose scenario.



Boundaries

Bee-ing Around exists in the digital space, as well as only when the game is active, and when the player is within range of GPS and data. However, the game elements and content break through aspects of the traditional 'magic circle'. The game elements will be located within 800 meters of the starting point although the players are free to move anywhere.

Controlling the in-game avatar works by physically moving through the real world, an augmented reality, and the player assumes the role of a worker honeybee, an alternate reality. The player may walk through the 'real' world while 'feeling' that they are the worker honeybee transcending the 'magic circle'.



Style and Tone

Below is a mood board that represents the style, tone, and general 'feel' for the game. Note, it is not concept art but will provide inspiration.

Bee-ing Around strives to invoke adventure, playfulness, and action into players. Player's will feel lively yet peaceful. These feelings can be encouraged through the visual and audio style as well as the story's tone.

Mood Board Bee-ing Around



Playful
Lively

Peaceful
Adventurous

Active
Vivid



Technical Description

The game engine [Unity](#) will be used with the [Mapbox Software Development Kit](#) to provide location-based elements. The game will be Mobile Cross-platform: Android and IOS.

Below is the technical prototype of the game mechanics, avatars, and user interface display. Please note that this prototype is only of the progression of action and not employing the art, style, or story of the game.

Bee-ing Around - Technical Prototype

