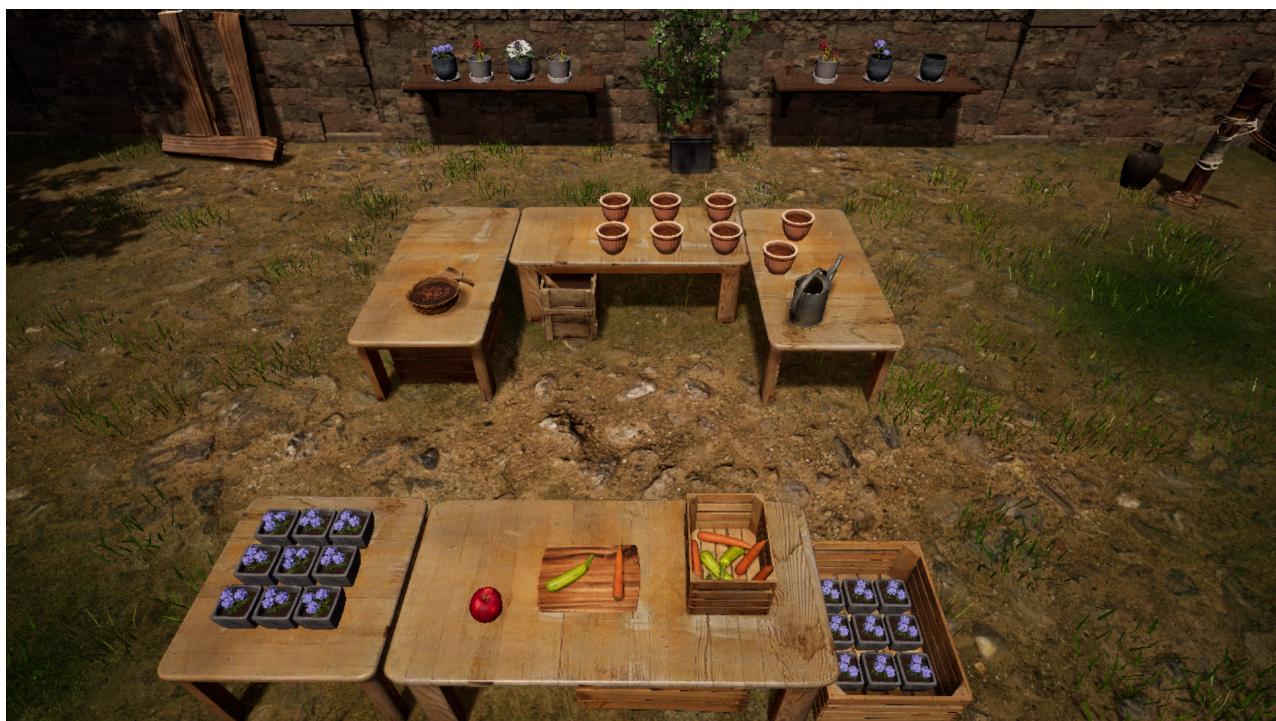


# Hobby Garden

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## 🏆 High Concept

Hobby Garden is a single player, first person perspective gardening game that aims to give the player a basic understanding of how to grow and maintain plants by providing certain tasks as a step-by-step guide to the player.



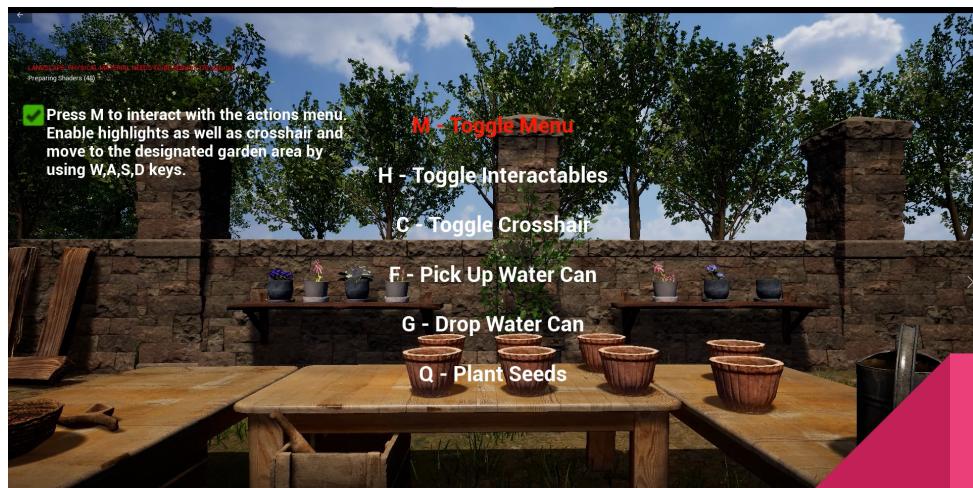


## Game Summary

Player starts within a designated gardening corner surrounded by a foliage-rich, aesthetic environment. Right from the beginning they are guided with basic step-by-step instructions on what actions to perform, as well as when and how to do them. Player first learns to interact with an instruction menu that houses several in-game functions and descriptions on how to reach these functions. Available actions are as follows : Toggle Menu, Toggle Interactables, Toggle Crosshair, Pick Up or Drop Water Can and Plant Seeds. Player first chooses a seed out of three available flower seeds (red, white, purple flowers) by interacting with the designated area. Once selected the seed can be planted to designated pots on top of a table. All interaction areas are placed in a triangular formation so that the player can reach out to all of them with ease. When “plant seeds” action is taken, dirt is put inside the pot and the seed is planted, the player must water it to begin the growth cycle. Once the growth cycle begins plants need to be watered yet again on each growth phase. There are a total of 4 phases for each type of plant : 3 phases consisting of early life stages and a final phase in which the plant is fully grown and needs to be watered from time to time in order to stay healthy. If not watered, the plant dies. For each plant, current growth and water levels are shown on top of the pots as well as the time remaining until the next phase occurs. With careful sound design and a quest-like system, the player is made aware of their interactions such as toggling functions, planting seeds and making advancements. Player is also provided with a toggleable “highlight” option that guides them to the gameplay area or shows them which items are interactables. Also, a toggleable crosshair is provided to make on-screen interactions easier. Finally, upon completing all tasks player may choose to continue the gameplay as they wish and may explore the playable area as well.

## ✨Features

- **Interactions Menu** : Player can view a set of available actions that will help them throughout the gameplay.
  - ◆ **Toggle Interactables (H)** : Shows/hides interactable objects by highlighting them visually with a bright white outline.
  - ◆ **Toggle Crosshair (C)** : Shows/hides camera crosshair in the middle of the screen.
  - ◆ **Pick Up Water Can (F)** : Picks up water can if the player is looking at it.
  - ◆ **Drop Water Can (G)** : Drops water can on the table, to its designated place.
  - ◆ **Plant Seeds (Q)** : Plants seeds on the pot the player is looking at.
- **Player Movement** : Player can move around using W,A,S,D keyboard keys to move forward, left, backward, right sequentially.
- **Seed Selection Area** : Player can select one out of three available flower seeds from this in-game menu using MMB to scroll through options.
- **Pots** : Pots are used to contain planted seeds and flowers as well as dirt. They are the main means of interaction between the player and plants. They provide visual information about plants' current growth levels and water levels.
- **Timers** : Provides visual feedback on when a plant will reach a certain growth phase.
- **Watering Can** : A holdable water source that is used to water the plants.
- **SFX** : Occasional sound effects provide a greater level of immersiveness as well as awareness for certain actions.



## 💡 Player Motivation

Player accomplishes several tasks while learning how to grow and maintain healthy plants. The need for following certain steps and maintenance promotes a sense of responsibility and replayability.

## ❗ Design Highlights

Any intractable and decorative object has a realistic look, size and feeling. Plenty of foliage assets and ambient sound effects are used to add to the immersiveness of the game. Interactions give enough visual and auditory feedback that it is clear what is going on. Simple UI elements guide the player. These aspects are supported with a fully explorable gardening area.



## 🎧 Intended Audience & Technology Used

Anyone interested in getting into hobby gardening or just curious about the subject may play this game. It provides simple and realistic gameplay that suits persons of any age group. In the making of this game, “Unreal Engine 5” software was used. Most of the assets were gathered from Unreal Engine Marketplace and Unreal Engine Sample projects, as well as from Quixel Bridge. All coding was done in terms of “blueprints”.



# Gameplay



## Core Mechanic and Core Loop

**Note :** Detailed explanations on each of these concepts are given in the “High Concept” part of this document. Thus, only a brief summary will be made.

- Player chooses a seed ; plants, waters and maintains it so that gradually it evolves into a healthy plant with flowers. While doing so the player makes use of a watering can and several actions that let the player interact with designated objects.
- For each pot, player chooses one out of red, white and purple flower seeds and plants it. Each plant has its own watering requirements and consumption rate as well as its own growth phase durations.
- The game revolves around player’s choices, they can experiment with seeds or maintain fully grown plants while exploring the area.



## Game Progression

- **Tasks** : Keep track of player progression and learning roadmap.
- **Growth Phases :**
  - ◆ **Phase 1** : Some dirt and seeds are placed in the pot.
  - ◆ **Phase 2** : After watering once, plants grow to their first form, consisting of small leaves.
  - ◆ **Phase 3** : After watering twice, plants grow to their second form, consisting of bigger leaves.
  - ◆ **Phase 4** : After watering a third time, plants grow to their final form, consisting of fully grown flowers.
- **Health Management** : Fully grown plants need to be watered gradually so that they don’t die.



## 🥇 Goals

Main goal is to teach the player basic steps of growing and maintaining plants. Endgame goal is to have a fully grown sample of all three types of flowers that are available.

## 🖌️ Design Basics

### 🌐 World / Environment

A real-life hobby garden feel is given as much as possible. A natural forest environment with dense foliage assets is designed from scratch to create a lifelike landscape. HDRI sky elements are used to replicate real-life skies.



## 😊 Aesthetics & Mood

A vivid color palette is applied to create a natural and calm feeling. All assets are hand-picked, are of high mesh and material quality. Lighting from HDRI sky as well as in-game atmosphere are blended together. Occasional point lights are used to brighten up areas that are too dark. The gardening corner is well lit so that the player has no trouble with the gameplay. Many post-processing tweaks are performed and atmospheric fog is added to improve overall visual quality. Local and global sound cues are used to provide both ambient and interactive sound effects.

## 🎥 Camera, Character & Controls

Hobby Garden is playable in first person camera perspective with first person player controls on PC platforms. A keyboard and a mouse are necessary input devices playing the game. Further controls are explained in detail in previous sections of this document.



## 🎓 Edutainment Aspects

As a learning outcome, the player is familiarized with important aspects of growing and maintaining healthy, lively plants. The player learns when and how to treat a plant with the help of growth phases and visual instructions. Thus, should a real-life situation involving application of these skills occur, the player can immediately recall the basic steps they followed during implementations provided by the game, and may perform these steps at a more complex level to attain their needs.

Player's ability to perform the necessary steps is measured via a step-by-step progression system and for the final stage, a health management system where the plant dies if it is not maintained properly. Thus, a sense of replayability is achieved. Player is provided with visual feedback for each action he/she takes.

Most of the area is reachable by the player and can be explored at will.



