

Farmer Price- Game Design Document (GDD)



'Putting the fun back into gaming' - C2S2

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Game Development Team Members

PRODUCER
C²S²

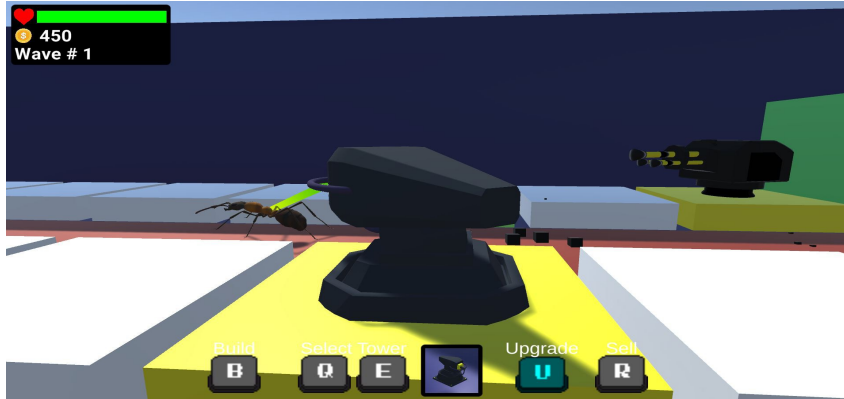
GAME DESIGNERS
Shane Tasker
Christian James
Sam Schneider
Cole Kinkaid

PROGRAMMERS
Shane Tasker
Christian James
Sam Schneider
Cole Kinkaid

AUDIO ENGINEERS
Sam Schneider

UX TESTERS
Christian James

1 Game Overview



Title: Farmer Price

Platform: PC Standalone

Genre: 3D First Person Tower Defense

Rating: (10+) ESRB

Target: Serious gamer (aging from 12 - 150)

Release date: May, 2021

Publisher: C²S²

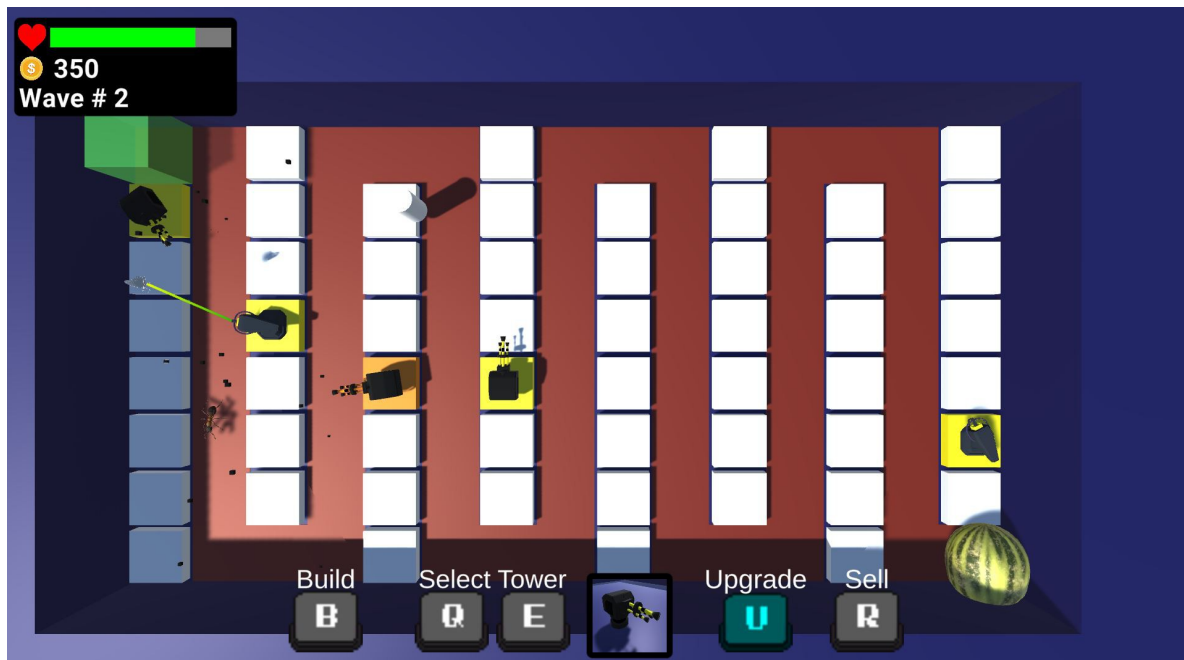
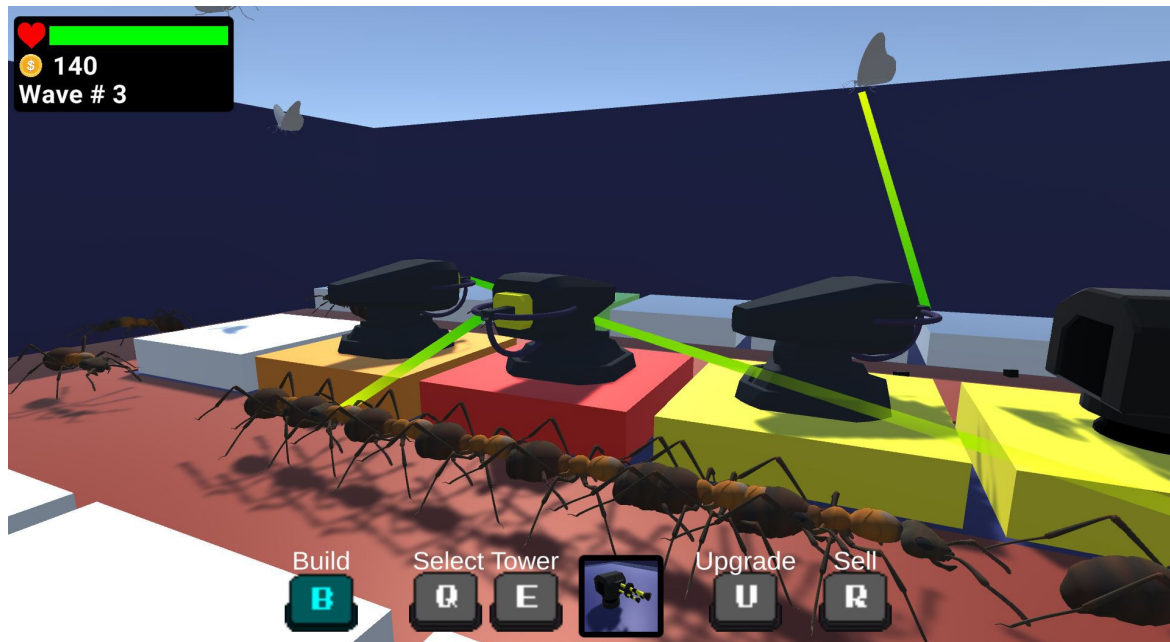
Description: Farmer Price is a first person 3D Tower Defense game. The player is a farmer whose garden has been invaded by ants. The ants are trying to reach the end of a maze, where the player's crops reside. In order to stop them, the player must place a variety of different turrets with different effects to halt the enemies' progress and destroy all of the ants before they eat all of the crops. There are multiple different turret types, from standard turrets to laser turrets to rocket launchers, as well as upgrades to make your turrets more powerful. There are a variety of different types of enemies as well, with your standard soldier ant to giant ants to flying ants. You win the game if you manage to defeat every wave of ants. Each time an ant reaches the end of the maze, you lose health, and if too many ants make it to the crops, then you have been defeated by the ant horde.

2 High Concept / Genre

Farmer Price is the ultimate bug-themed tower defense game. Immerse yourself in protecting your farm through the first person view of this game, as you build your turrets, run around the map, and choose whether you want to spend your gold that you earn from killing enemies on building new types of turrets or upgrading your existing turrets. Each run offers something new, as you get the opportunity to test out different strategies and find out what is the most effective way to stop the ant armies!

3 Unique Selling Points

- Exciting gameplay that combines the building aspect of tower defense games with the direct involvement of first person games
- Variety of Different Turret Types with Upgrades for Each Turret
- Ability to Switch Between Map View and First Person View so User Has Complete Control



4 Platform Minimum Requirements

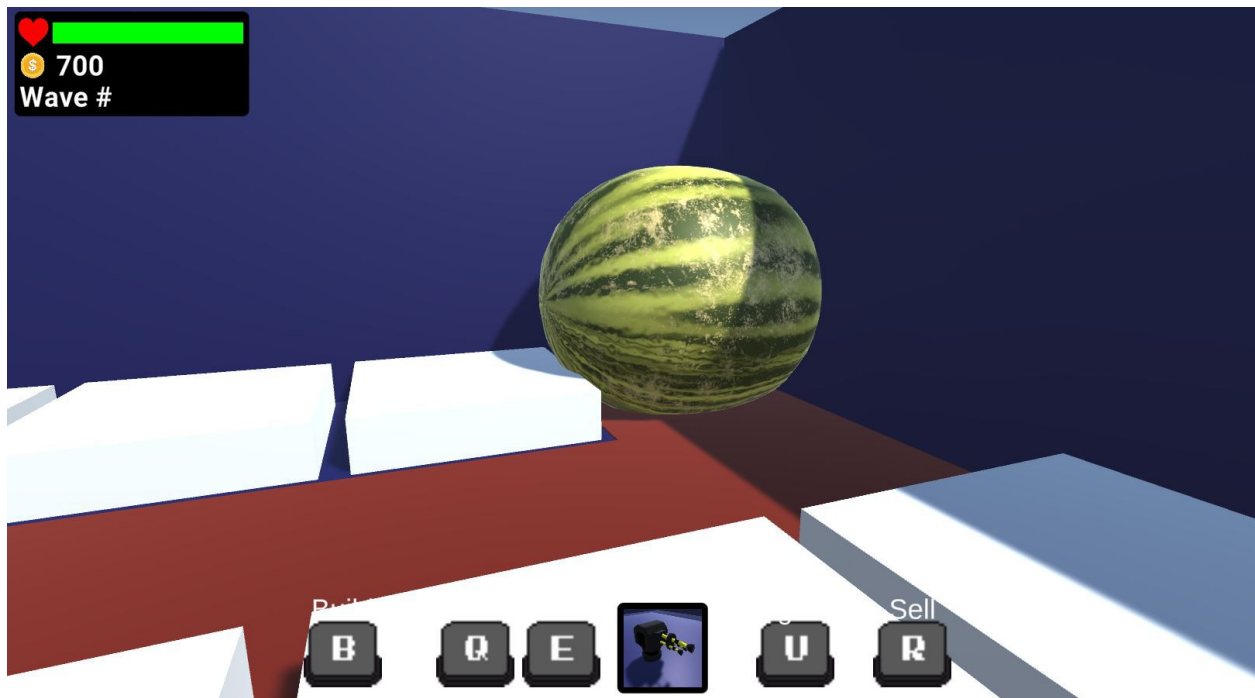
Computers that can run Unity

5 Competitors / Similar Titles

Sanctum

Bloons Tower Defense V

6 Synopsis



You are the CS Professor and gardening enthusiast Steven Price. Your garden has become infested with ants, so you have set up a maze to trap and kill the ants through the use of your anti-ant turrets that you have created.

7 Game Objectives

Defeat waves of enemy ants through the creation of turrets without letting too many make it to the end of the maze.

8 Game Rules

The game is set in a single enclosed maze. The player is able to move around, build and upgrade turrets, sell turrets, as well as switch to a top-down map view or pause the game whenever they want. When a player is ready, they can spawn a wave of enemies. The player wins by having any health left after all of the waves have gone through. The player's health is tied to the watermelon at the end of the maze, so that whenever an ant survives, the player loses health. If the player's health hits zero, it's game over.

9 Game Structure

Main Menu → Play Game → Game Over Scene (Which varies on whether player wins or loses)-> Credits Scene

Parallel to Play Game: Map View and Pause Screen

10 Game Play

10.1 Game Controls

Movement- Arrow Keys or WASD

Jumping- Spacebar

Enter Build Mode- B

Enter Upgrade Mode- U

Select Tower- Q to move left through the options and E to move right through the options

Left Click- Places Tower if in Build Mode, Upgrades Tower if in Upgrade Mode, Sells Tower if in Sell Mode

Enter Sell Mode- R

Spawn Wave- Enter

Pause Menu- Escape

10.2 Game Camera

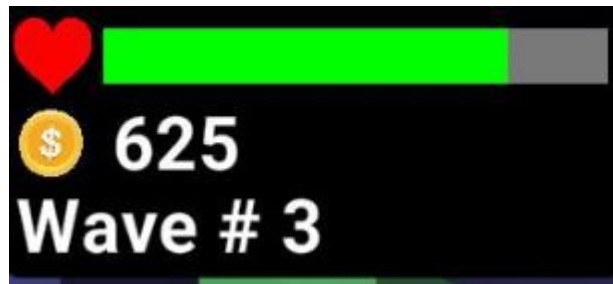
Follows player around, keeping player in the first person view. Stationary while player is in any of the menus (top-down view for the map mode).

10.2.1 HUD

Player Health- Shows how much health the watermelon has left (in effect player health)

Player's Gold- Shows the amount of currency the player has left

Wave Number- Shows the current wave the player is on



Build- Shows the button you need to press to activate build mode as well as indicating when you are in that mode

Turret Selection Buttons- Shows buttons you need to press to cycle through turret choices, as well as showing you when you are pressing down on them

Current Turret- Displays an image of the turret that you currently have selected to build

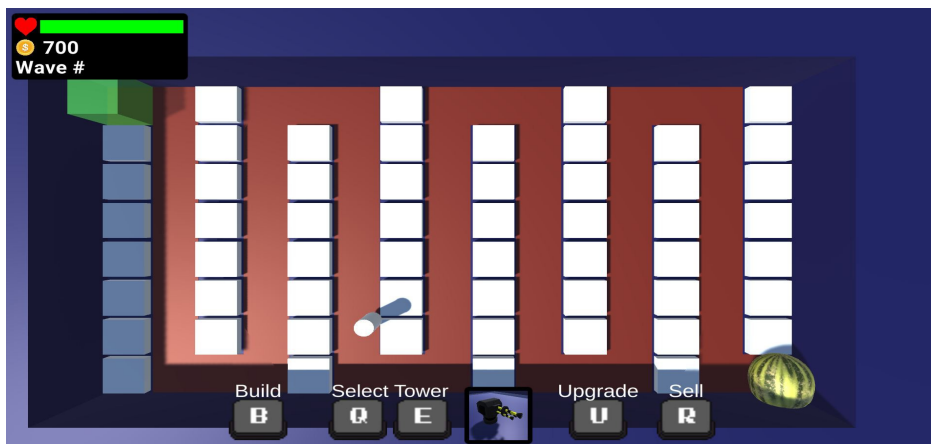
Upgrade- Shows the button you need to press to activate upgrade mode as well as indicating when you are in that mode

Sell- Shows the button you need to press to activate sell mode as well as indicating when you are in sell mode



10.2.2 Maps

Single enclosed maze map with obstacles that enemies can't pass through. These obstacles are the squares you can place your turrets on.



11 Players

11.1 Characters

Farmer Price: CS Professor, Gardening Enthusiast, and Inventor.



11.2 Metrics

Player/Watermelon Health: 5

Enemy Damage: 1

Format for Turrets: Values listed going from Level One to Level Three

Basic Turret

Damage: 10, 25, 65

Range: 3, 4, 5

Fire Rate: 1

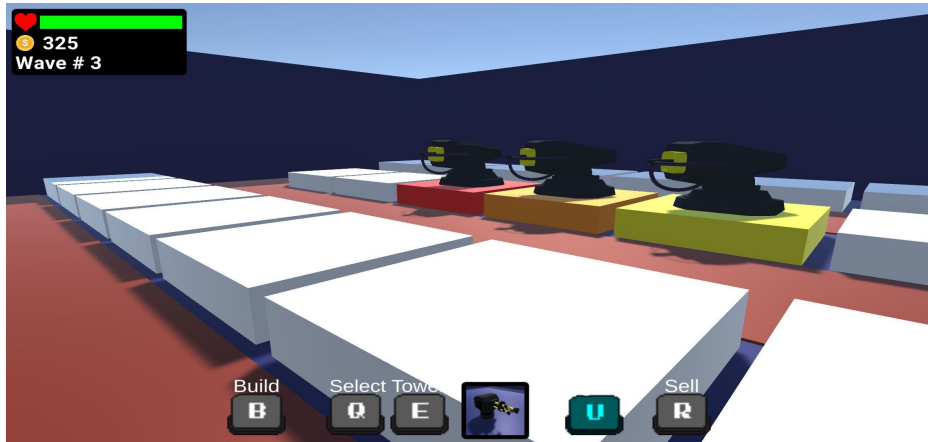


Laser Turret

Damage: 4, 5.5, 9

Fire Rate: 3, 5, 8

Range: 4, 4, 5



Rocket Turret

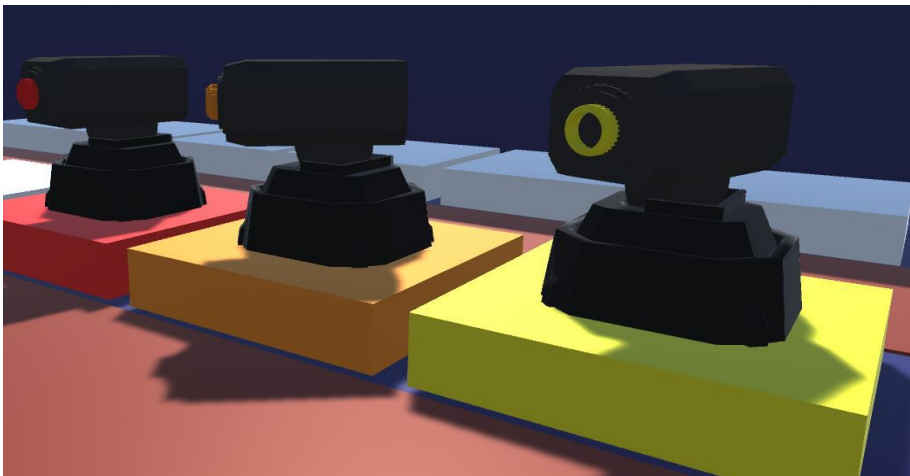
Damage: 24, 40, 48

Fire Rate: 0.25, 0.4, 0.75

Range: 3, 5, 8

Bullet Damage Radius- 1, 1.5, 2

Bullet Speed: 4, 8, 10



11.3 Weapons

Standard Turret

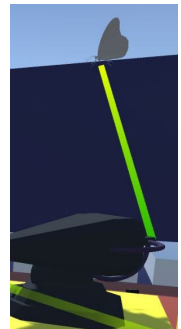
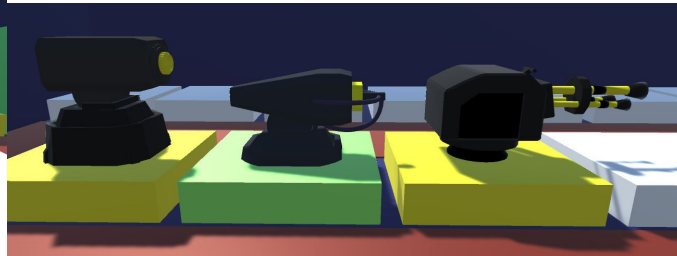
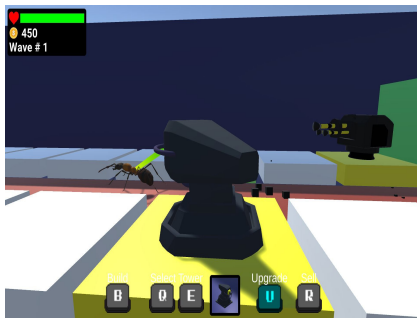
Laser Turret

Rocket Turret

Stats Listed Under Metrics

12 Player Line-up

Player Height irrelevant, about 2 m. Platforms are about 0.5 m tall. Basic and Laser Turrets are about 1.5 m tall. Rocket Turret about 2.5 m tall. Small ants about 0.5 m tall. Flying ants around 4.5m up and are about 0.75 m tall.



13 NPC

13.1 Enemies

Small Ant



Flying Ant



13.1.1 Enemy States

Enemy Walking- Walking in whichever direction is not closed off by maze

Enemy Flying- Flying in whichever direction is not closed off by maze

13.1.2 Enemy Spawn Points

Entry of Maze

14 Art

14.1 Setting

Professor Price's Backyard Garden.

14.2 Level Design

Small enclosed maze that player can walk around. Enemies only able to follow path in between the turret squares.

14.3 Audio

Homemade music and “quality” homemade sound effects.

Bopping Main Beat Playing On Loop At All Times

Basic Turret Sound Effect

Laser Turret Sound Effect

Missile Turret Sound Effect

15 Procedurally Generated Content

15.1 Artificial Intelligence NPC

Enemies procedurally generated in waves.

15.2 Visual Arts

Tiles procedurally generated before start of game, map also generated. Towers generated upon placement, bullets generated on attack speed timer if enemies are in range.

15.3 Minimum Viable Product (MPV)

Complete map with ability to build and upgrade different types of turrets.

Waves of enemies that increase in number and difficulty

Currency System

Ability to sell turrets

Ability to Win or Lose Game

Music and Sound Effects

16 Wish List

More tower types and enemy types

More map types

Character customization

More Crops

More Balance Between Turrets

Selling Reworked Slightly (selling only gives a partial refund but actual refund percentage needs to be adjusted)

Additional sound effects for added turrets, as well as sound effects for enemies.

Different homemade soundtracks for different levels

More plants to make map feel more like a garden

Boss Enemies

Adding Price into game as character (picture wrapped around cylinder so you can see him in map view)

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