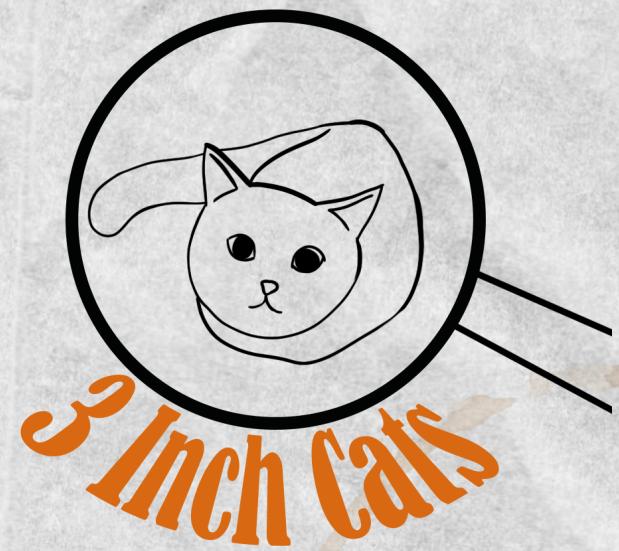


CARDBOARD CRUSADERS



By:



Game Design Document

Table of Contents

High Concept	4
Goal	4
Target Audience	4
Team Roles and Responsibilities	4
Story	6
Characters	6
Flynn	6
Gameplay	7
Interface and Controls	7
Candy Coins	7
Player Classes	8
Game mechanics	8
Turrets and Defenses	9
Base Turrets /Upgraded Turrets	10
Enemies	11
Levels	12
Bedroom	12
Kitchen	13
Backyard	14
Attic	15
UI & Menus	16
Main Menu	16
Options Menu	16
Class Selection	17
Level Select	17
How to Play	18
Tips from Flynn	18
Game Info	19

Win Screen	19
Lose Screen	20
Game Complete Screen	20
Unlocks Screens	21
Credits Screen	22
Music and Sound Effects	23
Sound Effects	23
Music	23
Ambiance	23
Marketing	23
Live Service Plan	24

High Concept

A tower defense game as seen through the eyes of a child. Using craft materials and toys to create a kingdom to defend from invaders. The player chooses the path the enemies take.

Goal

The player learns to adjust and adapt their defenses to protect their castle. Leading the enemies along paths of the player's own creation.

Target Audience

Rated E for everyone ages 10+ for PC

Team Roles and Responsibilities

Name	Brendan McDermott	Savannah Post	Brennan Richardson	Kyle Mikita	Matthew McMeekin	David Bell
Primary Role	Environmental Art	Concept Art	Character Artist/Modeler	Design	Coding	Coding
Secondary Role	SFX	Texturing	Concept Art	UI Design	Sound Design	Design
Responsibilities	Responsible for Modeling and UVing the 3D environmental art and doing most of the SFX with help from others on the team.	Creating concept art for the environments, Turrets, and characters. Texturing 3d models	Creating Character Models, UVing, Rigging, Animations	Designing levels, Mechanics, Menus, logos, start screen, etc.	Making the game work Enemy sounds, Player sounds, Turret sounds, Menu music, Game music, Button sounds	Programming controls and implementing turrets and enemies.
Skills Expanded	3D modeling & Texturing programs	Texturing, Artistic Renders	3D modeling, texturing, proficient in Maya	Design skills, Working in adobe for UI, coding	Marketing	Unity, C++, general design

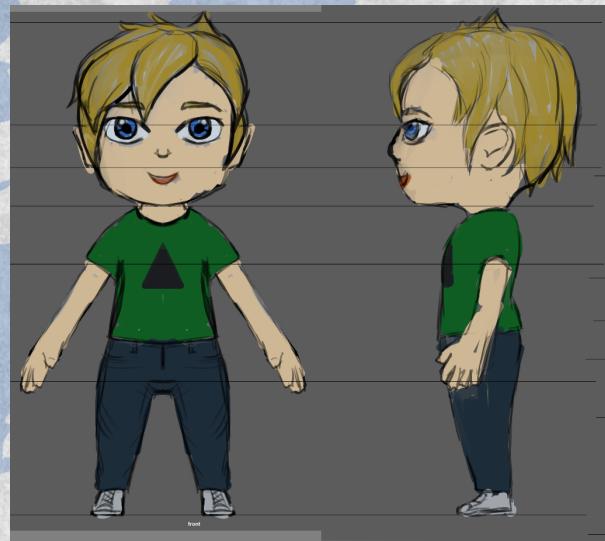
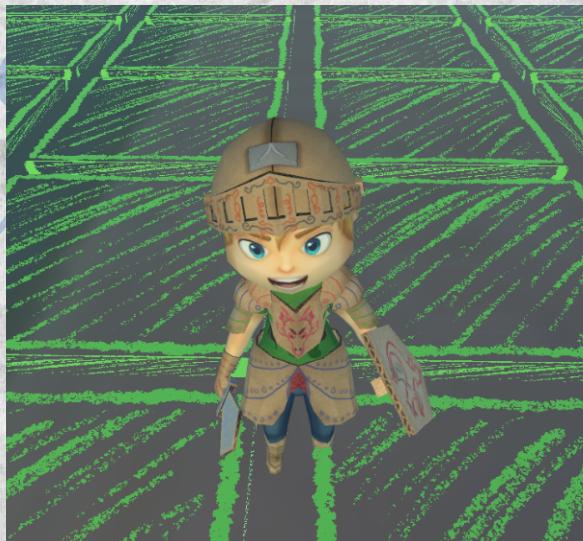
Story

Play as Flynn, an imaginative child of 8 in this third person tower defense game. You're charged with protecting your cardboard castle when toys come to life. Build and manage turrets, while using magic and special attacks to defend your castle from the onslaught of enemy waves. Will Flynn be able to keep the toy monsters at bay and save his creation?

Characters

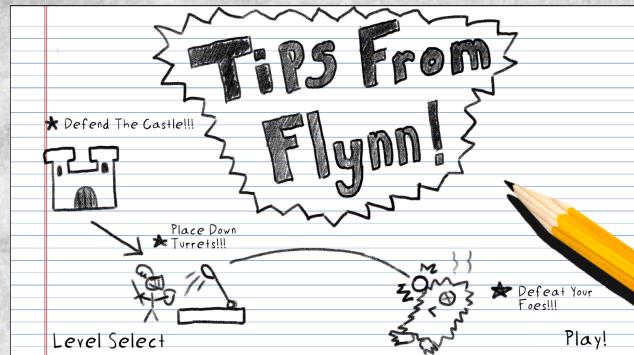
Flynn

Flynn is the protagonist of the game. He is an 8 year old boy who is very adventurous, likes crafts, and has a big imagination. Everything the player would see that fills in the world of *Cardboard Crusaders* has all been hand-built by Flynn. He is determined to stop the evil chimera's army of toys from destroying his castle and taking over his home!



Gameplay

The player will be in control of the third person character, Flynn. Flynn can move around the level map and interact/create turrets and other defenses. As well as creation, Flynn can use his attack (unique to which class the player chooses) to destroy enemies alongside the turrets he has created.



Interface and Controls

Main input will be through keyboard and mouse on PC and the directions for how to learn them

- WASD- Move
- Mouse- Click - Character attack/ move - Aim/ menu select
- Left Alt - Hold to enter turret building mode
- Number Input/ NumPad - Change turret/defense to place
- ESC - Access menu

Candy Coins

A small amount of gold is given to the player upon starting the level. Gold is then gained by killing enemies. All gold is lost upon the end of that level either through defeat or by successfully beating the level



Player Classes

Class Name	Base Damage	Base Range	Base Attack Rate	Ability Use	Ability Damage	Ability Range	Ability Cooldown
Knight	10	1	1 attack every 1 second	Has an ability to stun enemies for a short time with a shield bash	1	2	2 seconds
Mage	3	4	1 attack every 1.4 seconds	Do increased damage to a singular enemy	4	4	10 seconds



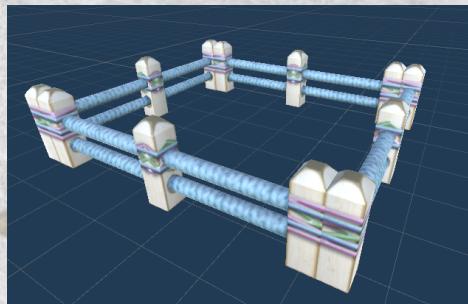
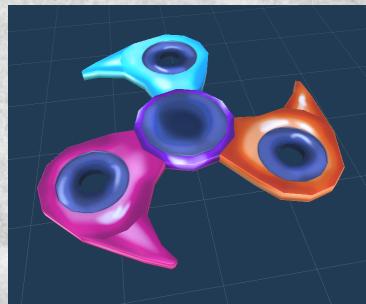
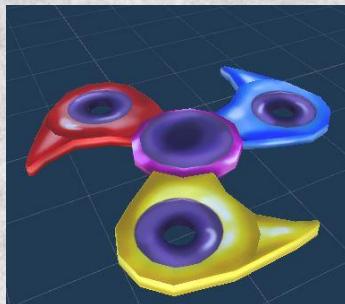
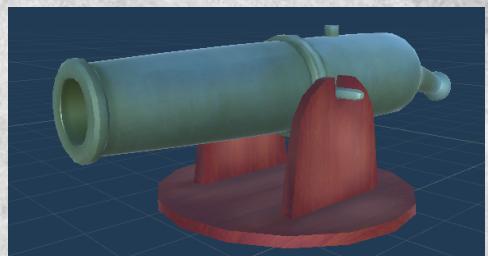
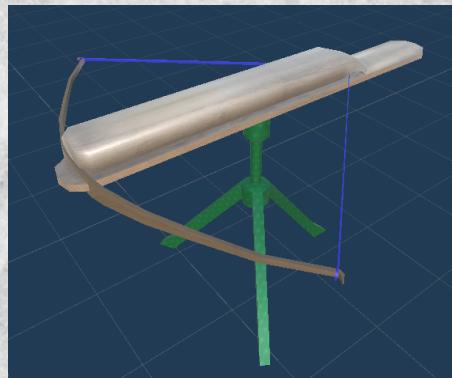
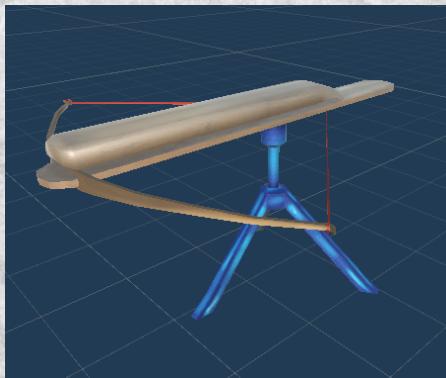
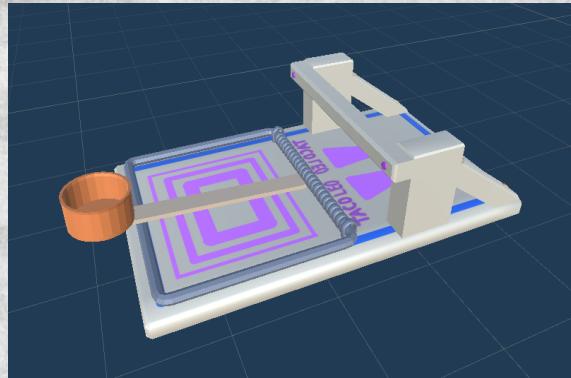
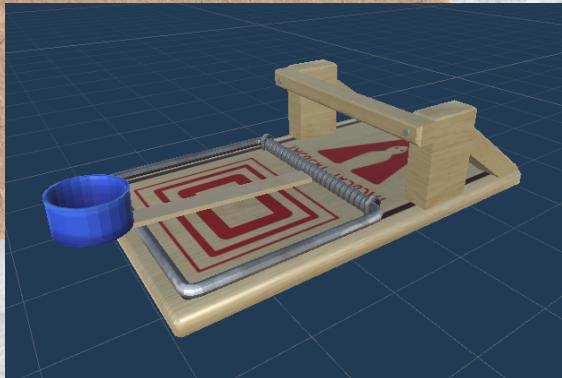
Game mechanics

The player will be building turrets to defend their castle to create a way to defeat enemies. Since levels will have different hazards and obstacles, the player must find ways to work around them. The turrets and defenses snap onto a visible grid that appears when building mode is entered. All Turrets have a visible range when being built and being selected.

Turrets and Defenses

Name	Description	Damage	Range	Attack Rate	Cost
Catapult Turrets	Flings marbles at closest enemy	2	8	2 attacks every 1 second	300 Coins
Upgraded Catapult Turrets	Flings marbles at closest enemy	2	9	3 attacks every 1 second	200 Coins
Spinner Turrets	Attacks nearby enemies in an area	1	2.5	1.5 attacks every 1 second	200 Coins
Upgraded Spinner Turret	Attacks nearby enemies in an area	1	2.7	3 attacks every 1 second	125 Coins
Cannon Turret	Attacks multiple enemies with explosions that affect an area	(AOE) 4	15	0.3 attacks every 1 second	400 Coins
Upgraded Cannon Turret	Attacks multiple enemies with explosions that affect an area	(AOE) 4	16	0.5 attack every 1 second	250 Coins
Crossbow Turret	Shoots at a single enemy from a very long range	10	12	0.4 attack every 1 second	500 Coins
Upgraded Crossbow Turret	Shoots at a single enemy from a very long range	15	16	0.6 attacks every 1 second	275 Coins
Wall Defense	Used to create a path for enemies to funnel through to get to the cardboard castle.	N/A	N/A	N/A	50 gold

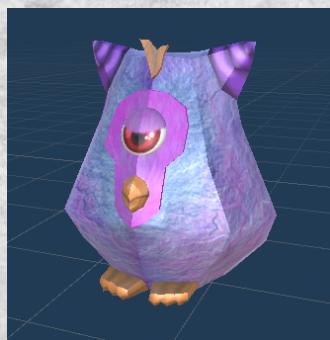
Base Turrets /Upgraded Turrets



Enemies

Enemies spawn in and move towards the castle through the field of turrets in order to damage the castle

Enemy Name	Speed	Damage	Attack Rate	Health	Spawn Rate	Coin Reward
Fuzzclops	3	1	1 attack every 0.2 seconds	10	Constant, random sized groups	25 Coins
Big Bear	2	5	1 attack every 2 seconds	50	Longer intervals, smaller groups	30 Coins
Bomber	10	8	Attacks once after 3 seconds	1	Very long intervals, very small groups	15 Coins
Chimera (Boss)	3	25	1 attack after 4 seconds	425	Spawns in halfway through the final wave	N/A
Chimera (Attack)	N/A	STUN player for 2 seconds	12 lightning bolts every 10 seconds or every 15 health lost	N/A	N/A	N/A



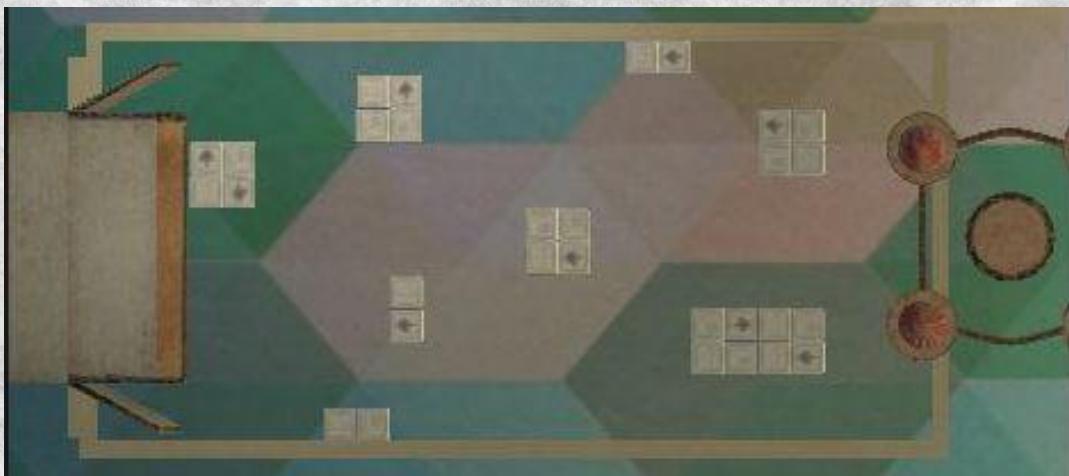
Levels

Each level will consist of a number of rounds leading to a final wave to complete the level. During the Attic level, the player will fight through waves of enemies to defeat the final boss. How each player approaches a level depends on the hazards throughout the level. Each level will add new turrets that the player will have to use to defeat new enemies that appear each level.

Bedroom

The bedroom level will be the first level the player is introduced to. There will be toy blocks around the arena that will prevent the player from placing turrets in certain places. In this level, the player will start with 1000 candy coins and have access to the Catapult and Wall to use to defend against the Fuzzclops in battle.

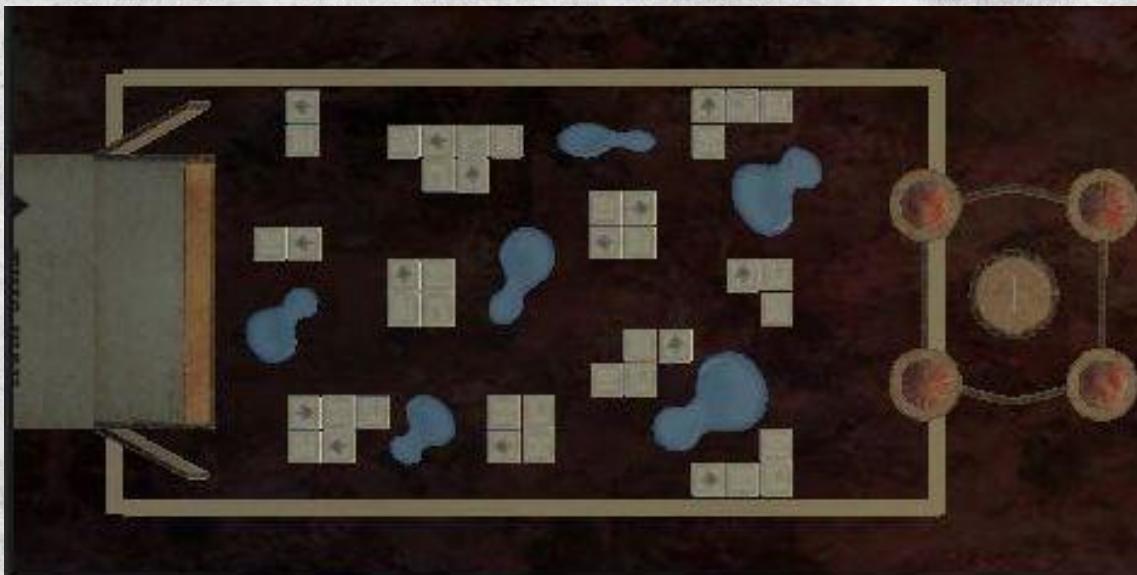
Level Name	Hazards	Turrets/Defenses Available	Enemies Available	Waves	# of Enemies	Candy Coins	Seconds to Prepare	Seconds Between Waves
Bedroom	Toy Blocks	Catapult, Wall	Fuzzclops	3	105	1000	30	15



Kitchen

The kitchen level will be the second level the player will go to. In this level, the player will start with 1000 candy coins and will unlock the Crossbow to help defeat the new Big Bear enemy that appears. Also, the player will have to work around water puddles that will cause the player to slide around.

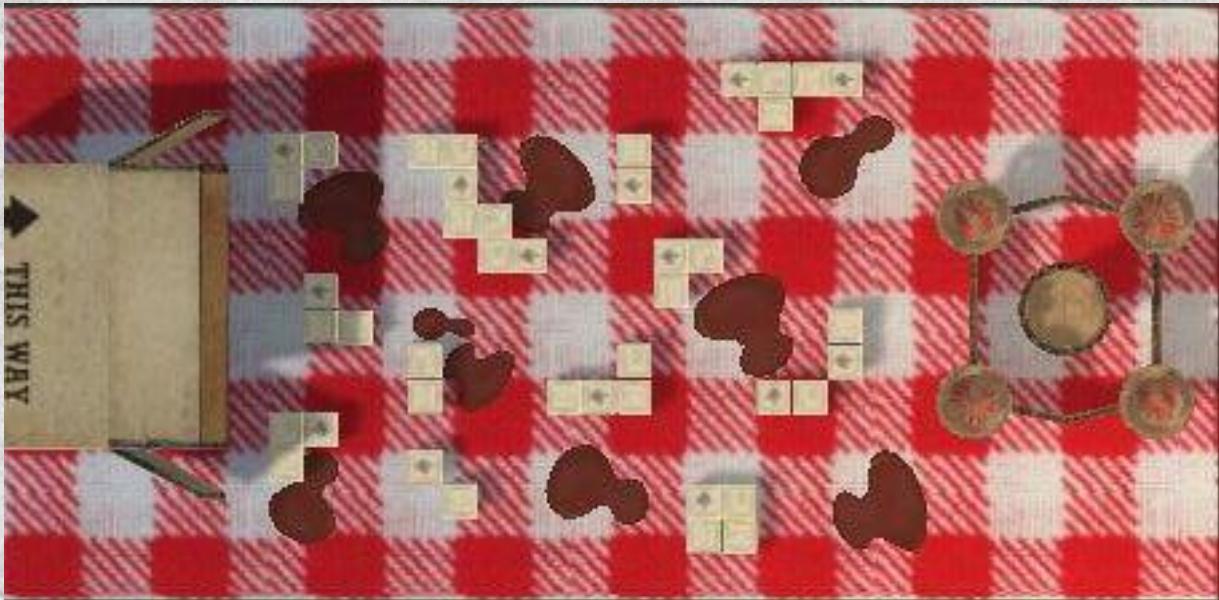
Level Name	Hazards	Turrets/Defenses Available	Enemies Available	Waves	# of Enemies	Candy Coins	Seconds to Prepare	Seconds Between Waves
Kitchen	Toy Blocks, Water Puddles	Catapult, Crossbow, Wall	Fuzzclops, Big Bear	4	192	1000	30	15



Backyard

The backyard level will be the third option the player will go to. Within the level, there will be mud that will slow the player and enemies. Said puddles will also prevent turrets from being built on those spots. The player will start with 1000 candy coins and will unlock the Cannon to help defeat the new Bomber enemy that appears.

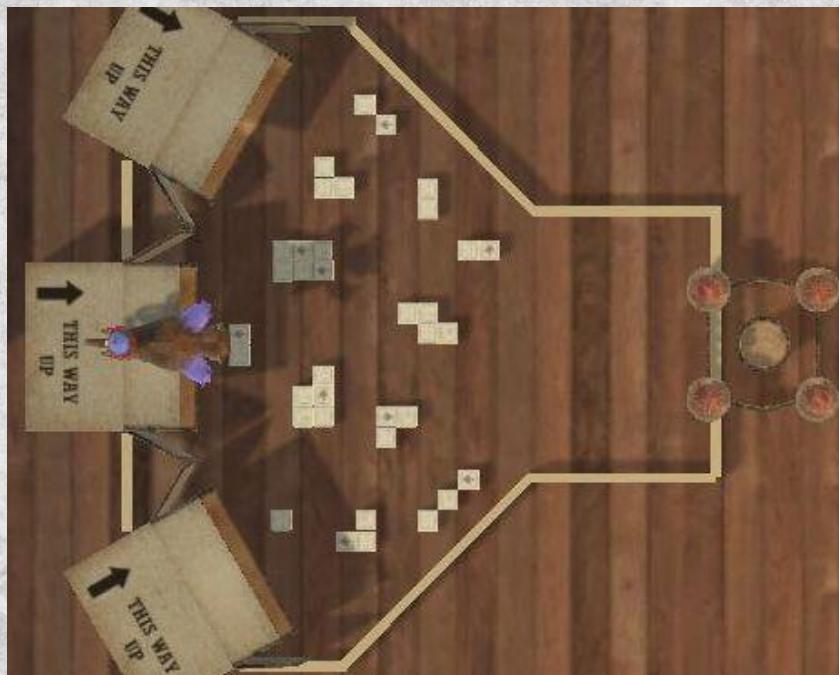
Level Name	Hazards	Turrets/Defenses Available	Enemies Available	Waves	# of Enemies	Candy Coins	Seconds to Prepare	Seconds Between Waves
Backyard	Toy Blocks, Mud	Catapult, Crossbow, Cannon, Wall	Fuzzclops, Big Bear, Bomber	4	259	1000	30	15



Attic

The final level the player has go to is the Attic. There the final boss will challenge Flynn. The player is given more space to work with, but more enemies will be spawning as well. The player will start with 3000 candy coins and will unlock the Spinner to help defeat the Chimera boss and massive amount of enemies that appear.

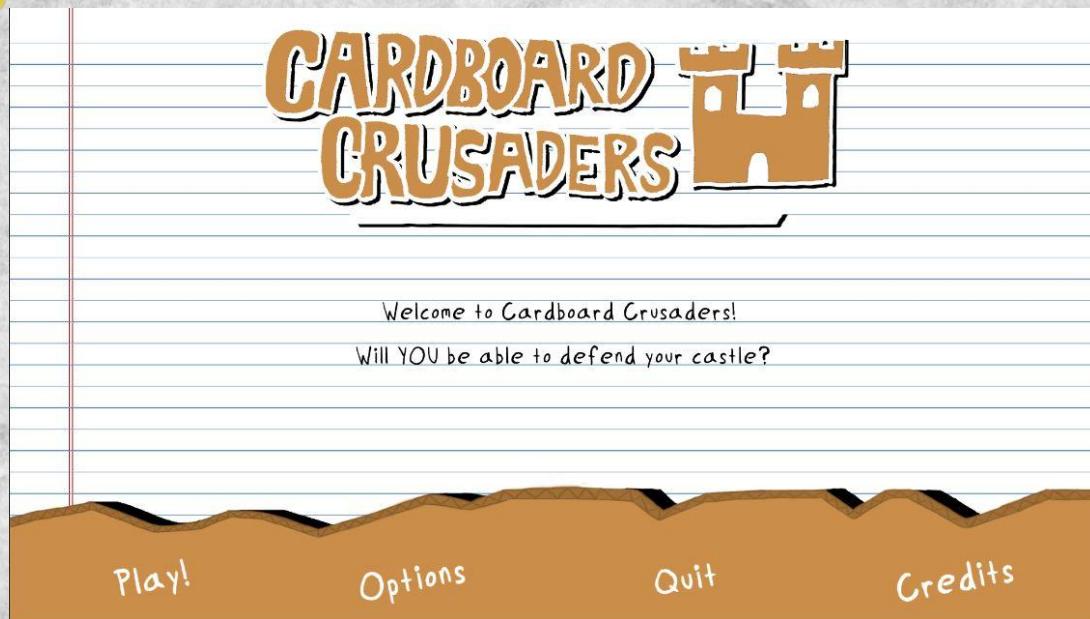
Level Name	Hazards	Turrets/Defenses Available	Enemies Available	Waves	# of Enemies	Candy Coins	Seconds to Prepare	Seconds Between Waves
Attic	Toy Blocks	Catapult, Crossbow, Cannon, Spinner, Wall	Fuzzclops, Big Bear, Bomber, Chimera	5	431	3000	60	20



UI & Menus

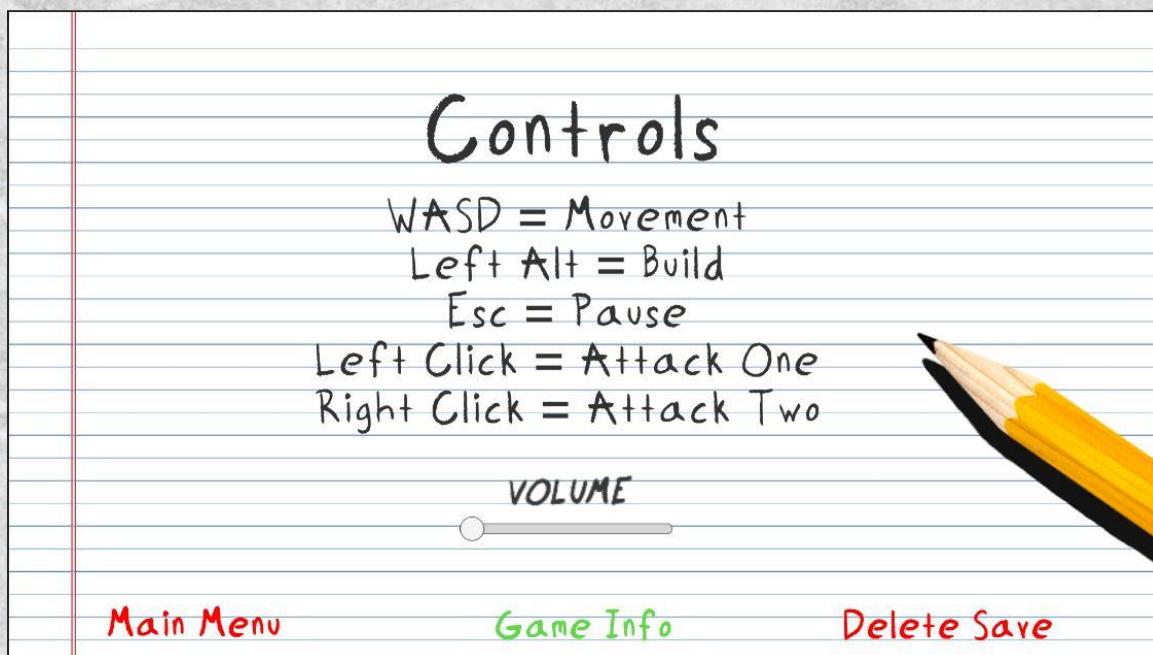
Main Menu

This will be the first menu players will see when the game is launched. It will have 4 interactable buttons. Play, Settings, Quit, and Credits.



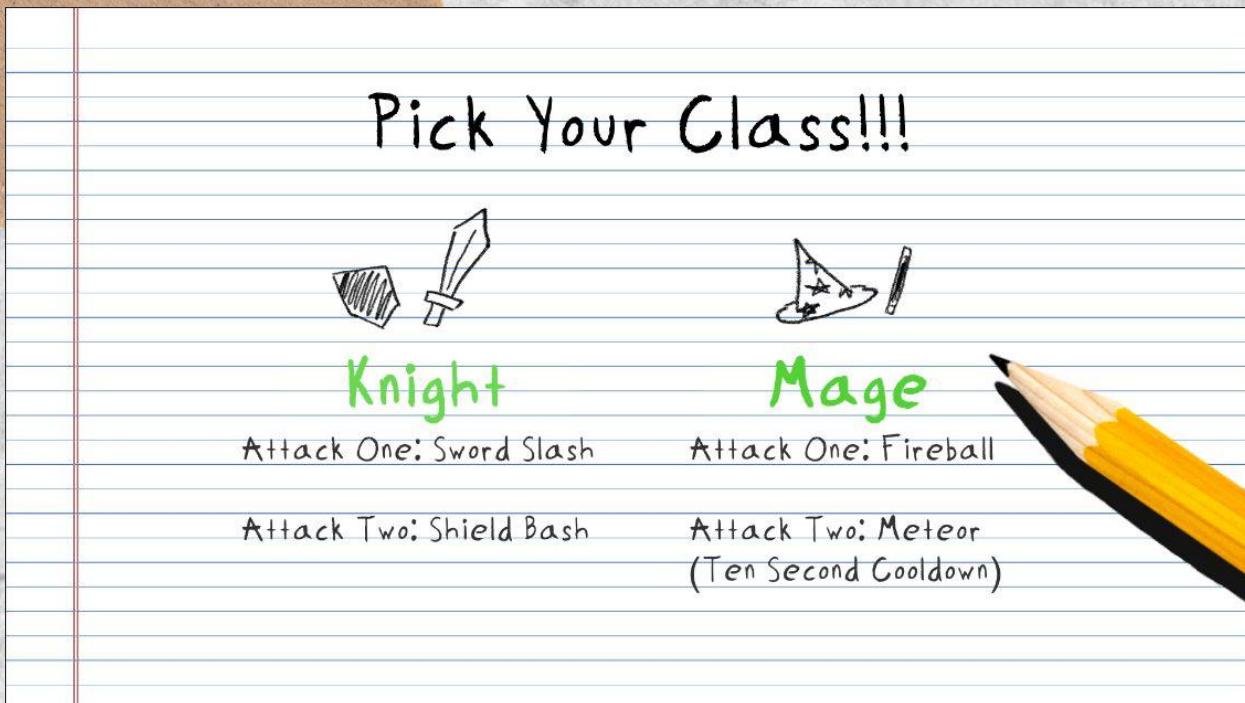
Options Menu

This is the menu where the player will be able to see the controls for the game. These controls include movement, how to build, and more!



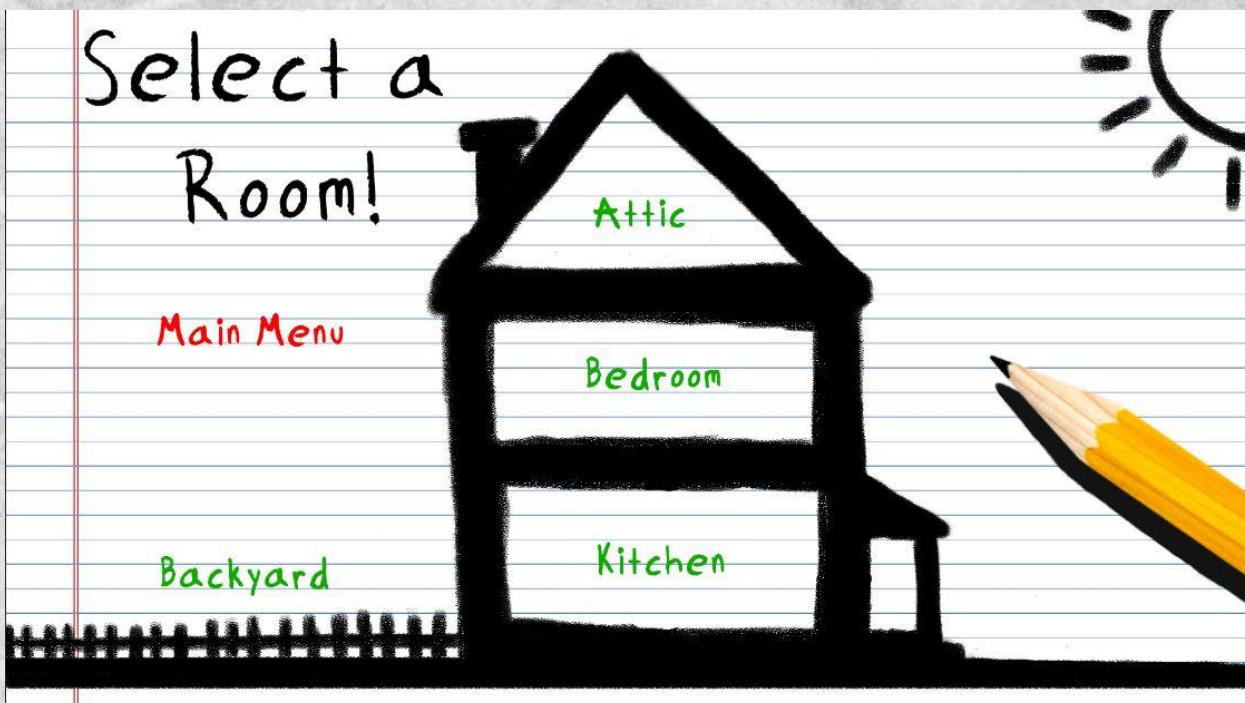
Class Selection

This is the menu that the player will be able to choose their class from. in this menu, you can choose to either play as a knight or a mage!



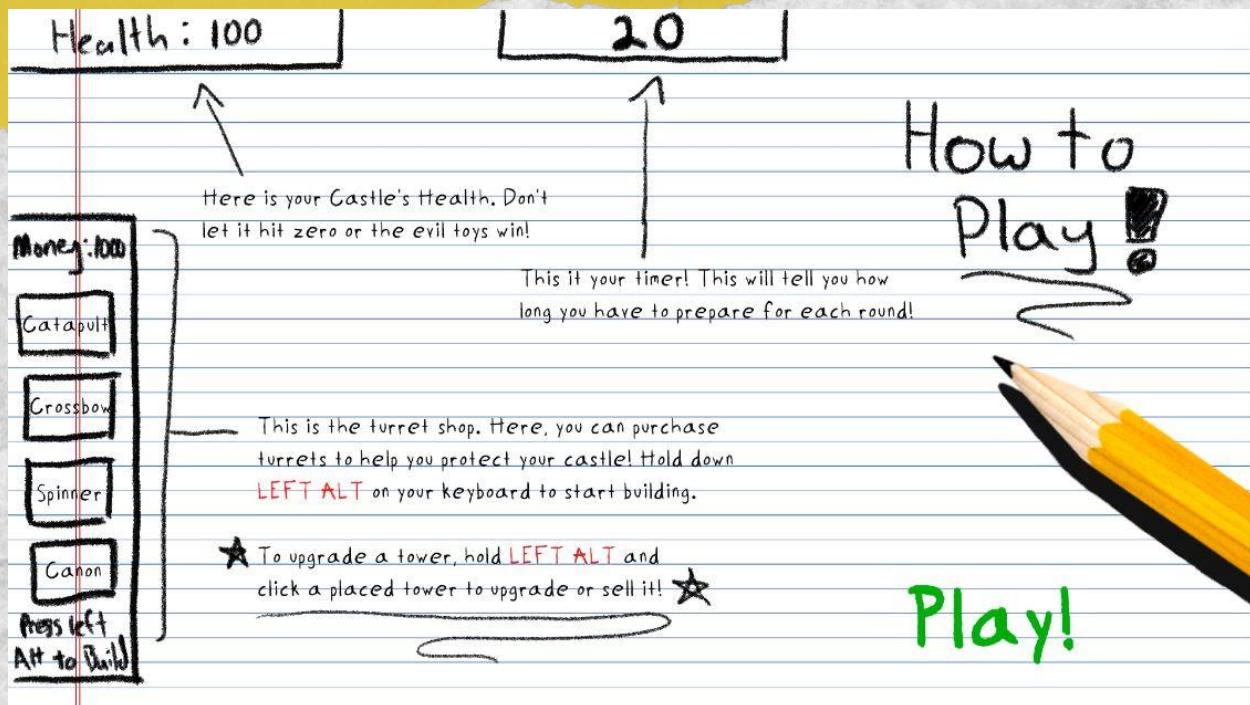
Level Select

After choosing their class, the player comes to the level select screen to both select the area in which they wish to play and the difficulty of the level. All the levels are stylized to be a different room/ area in Flynn's home.



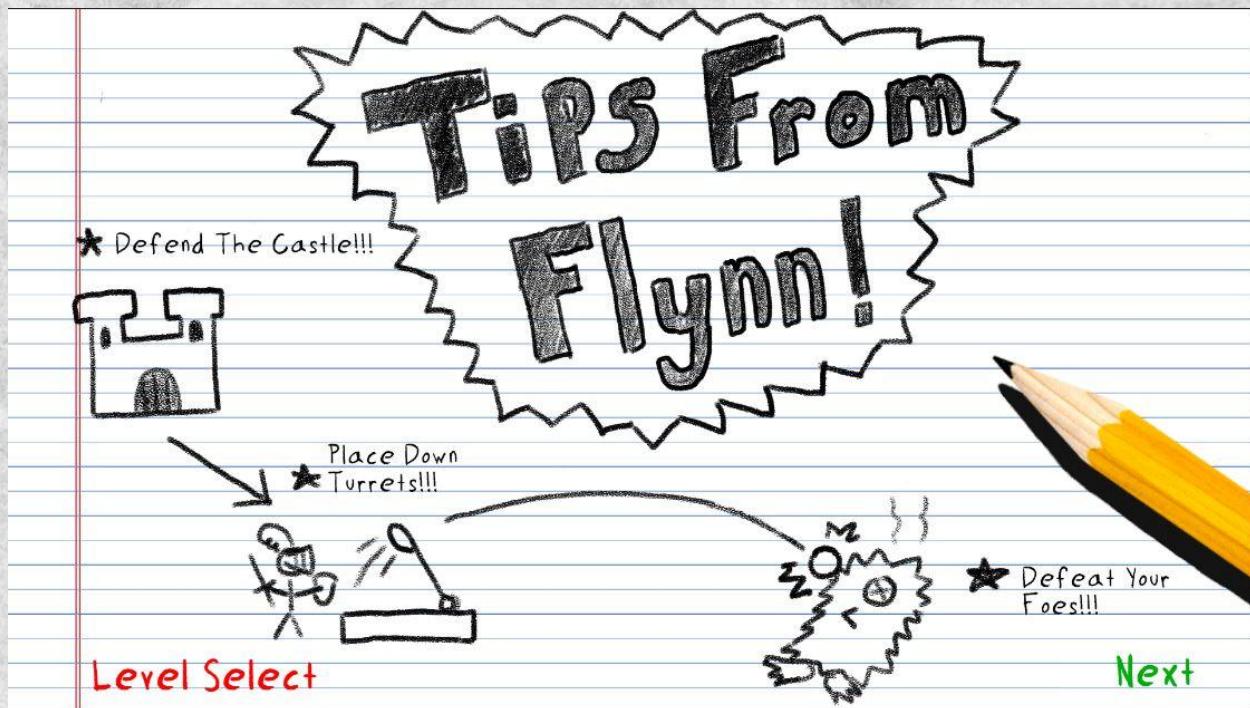
How to Play

Before you start defending your castle, you come across the "How to Play" page. This page tells the player how to navigate the in game UI and build or upgrade turrets!



Tips from Flynn

On the "Tips from Flynn" page, Flynn tells the player his secret to being able to successfully defend his cardboard castle. Defend, build, and defeat!



Game Info

On the "Game Info" page, the player can see every turret and enemy in the game. It also provides some helpful information on how the turrets work and how the enemies behave.

Game Info	
Turrets	Enemies
 Catapult - Average Damage and Fire Rate	 Fuzzclips - Average Speed and Damage
 Crossbow - High Damage Long Range	 Big Bear - Slow Speed High Health
 Cannon - Area Damage Slow Fire Rate	 Bomber - Very Fast High Damage
 Spinner - Up Close Area Damage	
 Wall - Blocks Enemy Movement	

Back

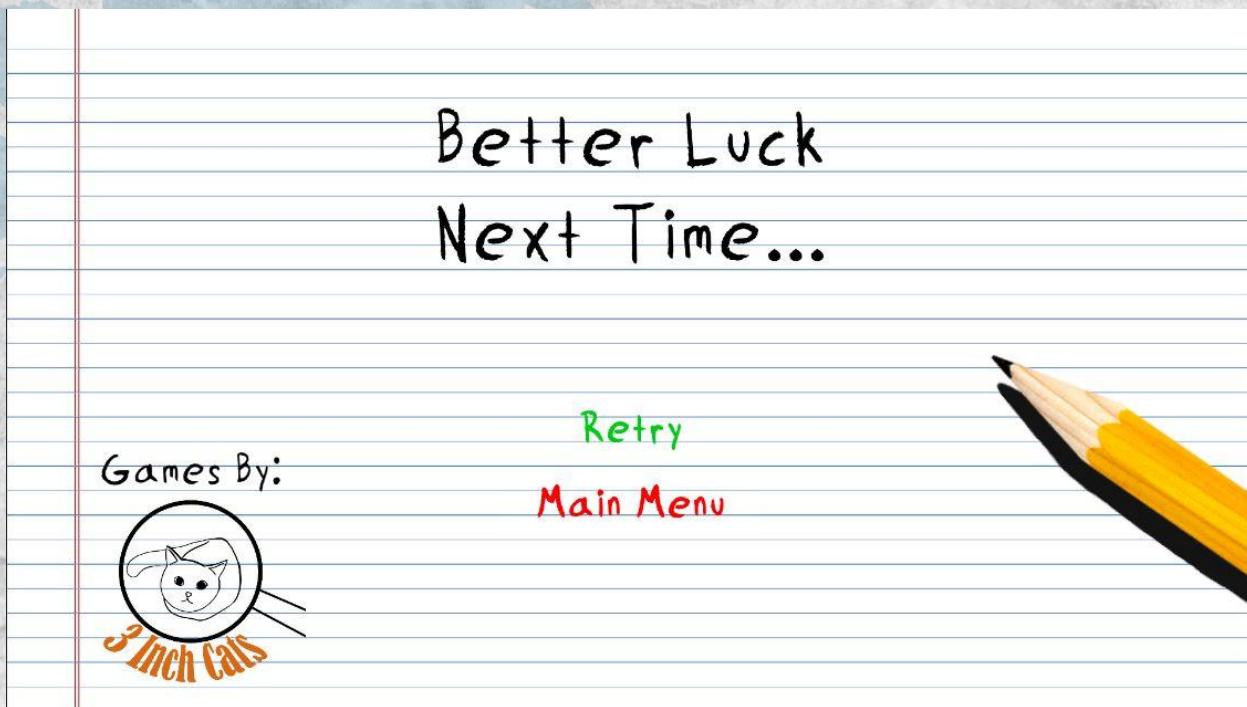
Win Screen

Once the player completes a level, they are presented to the "Win" screen. They can return the Main Menu to see if they unlocked a new level.



Lose Screen

Once the player loses a level, they are presented to the “Lose” screen. They can return the Main Menu to select a different level or retry the one the player lost.



Game Complete Screen

Once the player completes the Attic level, they are presented to the “Game Complete” screen. This shows that they have beaten every level the game has to offer. They can return the Main Menu to replay any level they chose.



Unlocks Screens

As the player completes levels, they will be presented with the "Unlocks" screen to show what is new on the next level.

New Enemy and Turret!

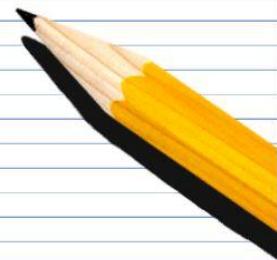
Enemy: Big Bear

- Slow Speed
- High Health

Turret: Crossbow

- High Range
- High Damage

Play!



New Enemy and Turret!

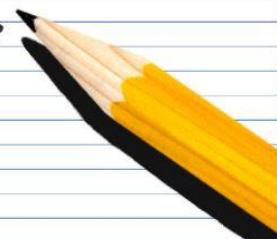
Enemy: Bomber

- High Speed
- High Damage

Turret: Cannon

- High Range
- Slow Fire Rate

Play!

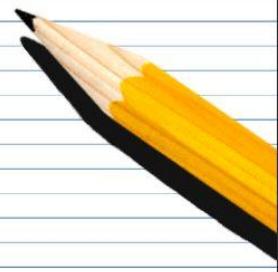


WARNING: BOSS INCOMING!

New Turret: Spinner

- Up Close Area Damage

Play!



Credits Screen

This screen is to show who helped create Cardboard Crusaders and to thank the player for playing.

Thank you for playing Cardboard Crusaders!

UI and Design:
Kyle Mikita

Sound and Programming:
Joey McMeekin

Art:
Brendan McDermott
Brennan Richardson
Savannah Post

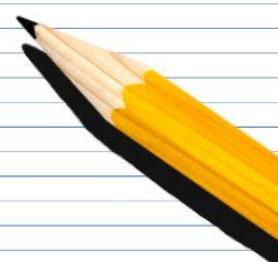
Programming:
David Bell

Music:
Ethan Fountain

Games By:



Main Menu



Music and Sound Effects

Sound Effects

All sound effects will be done through Foley to create a more grounded environment amongst the fantastical setting. Use of toys in the sound effect process to tie into the visual theme.

Music

The various tracks through the levels are unique to each level. They will create an uplifting and energetic theme for each to keep the player motivated. The boss level (Attic) has a much more foreboding music theme to tie into the boss battle on that stage. Music was outsourced due to a lack of internal knowledge and all tracks are made by Ethan Fountain.

Ambiance

The ambiance will remind the player that they're playing. Various noises from around the home that Flynn is playing in. Each level will have its own unique ambiance in accordance to the level design.

Marketing

We will be marketing our game on several social media platforms as our game production ramps up. We will have a Twitter account and an Instagram account to try and maintain a following throughout production. Since the game is going to be rated for everyone ten and up, marketing strategy will focus on being less wordy and focus on bright visuals and fun key words. Specific advertisements of the game should focus on its strengths, visuals and design but also emphasize the uniqueness of the game idea (third person tower defense).

Once we have a decent amount of gameplay completed we will also start making several cinematic trailers and teasers to be released on social media and whatever platform we decide to publish the game on like Itch.io and Steam. We will plan to release free-to-play versions of the Beta in order to acquire feedback from a larger community before switching to a transaction model. For the full game, it will be a one-time purchase and the price will cost \$1.99. If the game were to gain traction, we will plan to release DLC packs which will include more content including new playable characters, new turrets, locations, and enemies.



Live Service Plan

The first day after Cardboard Crusaders we will be actively monitoring any issues, large or small, that people run into and prepare everything for a day 1 patch. Hopefully through this use of the patch to keep everything in check, Cardboard Crusaders will have a mostly smooth launch. As we move towards the first week, we will prepare our initial release bug patch schedule which includes weekly bug patches. This will remain consistent for the first month post-release.

For that first month all our efforts will be focused on bugs and bugs alone. As we enter month two, the patch schedule will change from weekly to monthly. At the end of each month, we will be patching out bugs and implementing new things that had to be cut prior to final release. As we finish releasing all planned content for Cardboard Crusaders, we will move towards expanding upon the game through releasing DLC and content updates.

These content updates will include things such as changing each level to its own world providing multiple levels and adding more enemies, towers, traps, creating enemy variants and a branching upgrade system to both the towers and the classes. These changes will come out in the end of the month content/bug patches. DLC however will be bringing new rooms to Flynn's house as well as exclusive towers, enemies, and playable classes.

After the initial purchase of Cardboard Crusaders, the monthly content and bug patches will be free and included with the initial purchase of the base game. The only payments within the game after release will be strictly DLC. For a payment of 0.80\$, the player will gain access to this new location and the ability to use the new towers to fight off waves of the special enemies. Hopefully through these consistent content/bug patches and paid DLC, the longevity of Cardboard Crusaders will be greatly extended.

M A Y 2 0 2 2						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3	4	5	6 Cardboard Crusaders Release	7 Day One Patch
8	9	10	11	12	13	14 Week One Bug Fix Patch
15	16	17	18	19	20	21 Week Two Bug Fix Patch
22	23	24	25	26	27	28 Week Three Bug Fix Patch
29	30	31				Week Four Bug Fix Patch

NOTES