Karl Lewis

EGD 212-02: Principles of Game Design

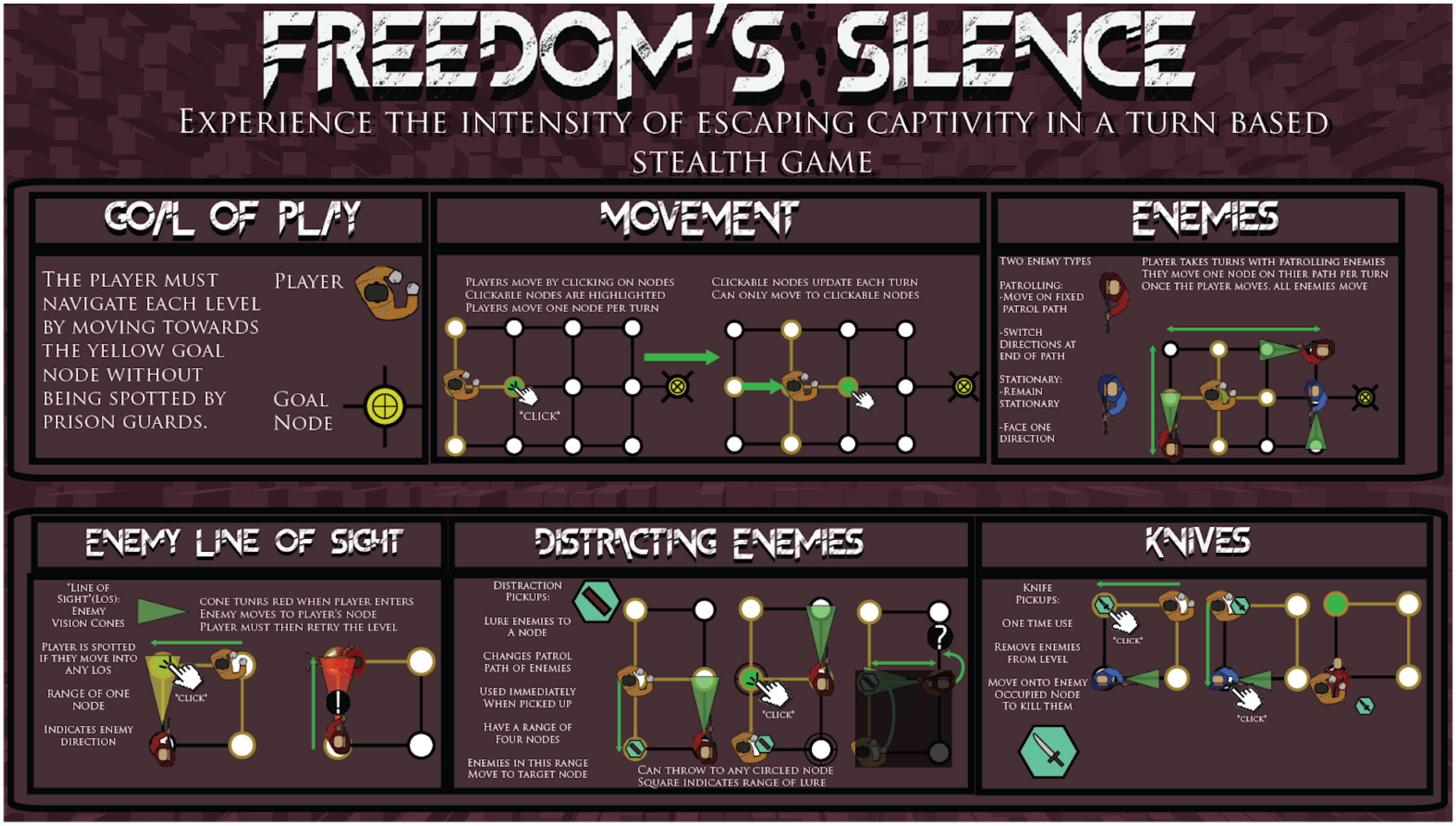
Final Documentation

Table of Contents

Iterations

1. Updated the colors and art assets of the Visual Design Document to reflect the final artwork and aesthetic of the game.
2. Made changes and additions to Enemy Behaviors, Line of Sight, Distraction Pickups, and Knife Pickups in the Systems List
3. Added sections to the Feedback section of the Systems List
4. Changed and added to Feedback section in the Systems List
5. Added an Art/Sound assets table to the Mechanics and Elements table to provide a full list of all assets required for the final game.
6. Completed a new round of QA testing with a new plan, survey, data, and analysis

Visual Design Document



FREEDOM'S SILENCE

EXPERIENCE THE INTENSITY OF ESCAPING CAPTIVITY IN A TURN BASED STEALTH GAME

GOAL OF PLAY

THE PLAYER MUST NAVIGATE EACH LEVEL BY MOVING TOWARDS THE YELLOW GOAL NODE WITHOUT BEING SPOTTED BY PRISON GUARDS.

MOVEMENT

PLAYERS MOVE BY CLICKING ON NODES
CLICKABLE NODES ARE HIGHLIGHTED
PLAYERS MOVE ONE NODE PER TURN

CLICKABLE NODES UPDATE EACH TURN
CAN ONLY MOVE TO CLICKABLE NODES

ENEMIES

TWO ENEMY TYPES

PATROLLING:
-MOVE ON FIXED PATROL PATH

-SWITCH DIRECTIONS AT END OF PATH

STATIONARY:
-REMAIN STATIONARY

-FACE ONE DIRECTION

PLAYER TAKES TURNS WITH PATROLLING ENEMIES
THEY MOVE ONE NODE ON THIER PATH PER TURN
ONCE THE PLAYER MOVES, ALL ENEMIES MOVE

ENEMY LINE OF SIGHT

"LINE OF SIGHT"(LOS): ENEMY VISION CONES

PLAYER IS SPOTTED IF THEY MOVE INTO ANY LOS

RANGE OF ONE NODE

INDICATES ENEMY DIRECTION

CONE TUNRS RED WHEN PLAYER ENTERS
ENEMY MOVES TO PLAYER'S NODE
PLAYER MUST THEN RETRY THE LEVEL

DISTRACTING ENEMIES

DISTRACTION PICKUPS:

LURE ENEMIES TO A NODE

CHANGES PATROL PATH OF ENEMIES

USED IMMEDIATELY WHEN PICKED UP

HAVE A RANGE OF FOUR NODES

ENEMIES IN THIS RANGE MOVE TO TARGET NODE

CAN THROW TO ANY CIRCLED NODE
SQUARE INDICATES RANGE OF LURE

KNIVES

KNIFE PICKUPS:

ONE TIME USE

REMOVE ENEMIES FROM LEVEL

MOVE ONTO ENEMY OCCUPIED NODE TO KILL THEM

System’s List

1. Player Movement:

a. Turn based
b. Take turns with enemies
c. Move only one node per turn
d. Can only move to an adjacent node
e. Nodes that the player can move to have a different sprite with a target on it.

2. Enemy Behaviors:

a. Two types of enemies: patrolling and stationary
b. Patrolling enemies only move in two directions depending on which direction is their front:
    i. Vertically facing patrolling enemies only move up and down along their patrol route.
    ii. Horizontally facing patrolling enemies only move left and right along their patrol route.
    iii. Front facing direction is determined by the direction of the enemy’s line of sight cone.
c. Patrolling enemies do not stray from the line of nodes (patrol route) they start the level on unless they are lured with a distraction.
    i. They face different directions depending on which way they are moving.
    ii. When they reach the end of their patrol route, their sprite and vision cone is flipped to switch their face to the opposite direction.
d. All patrolling enemies move immediately after the player moves.
e. Stationary enemies are more like traps or obstacles to the player than AI opponents.

i. They face their starting direction throughout the entire game.

3. Line of Sight

a. All enemies, whether patrolling or stationary, have a vision cone referred to as a “line of sight”.

b. Each enemy’s line of sight extends to exactly one node in front of their current position.

c. The direction of the line of sight cone determines the direction an enemy is facing.

d. The line of sight cone exists to give the player feedback about nodes they should not move into.

e. If the player chooses to move into an enemy’s line of sight during their turn (that is, move one node directly in front of where the enemy is facing), they are discovered by that enemy and must retry the level.

f. If an enemy moves and the player happens to be within their line of sight, the player is *not* discovered; the *player must willingly move* into the line of sight to lose the level and start over.

4. Distraction Pickups:

a. Distractions allow the player to lure ONLY patrolling enemies away from their current position.

b. Distraction sprites look like bricks.

c. To pick up a distraction, the player moves onto a node where a distraction pickup is located.

d. The player may throw the distraction to any node within range (marked with the target sprite).

e. The player throws the distraction by clicking on a node within range.

f. When the distraction reaches the target node, a gray square appears to indicate the noise it made. Any patrolling enemy touched by this square is successfully lured.

g. The distraction cannot be saved for later and must be used immediately once it is picked up.

h. Stationary enemies are not affected by distractions

i. Patrolling enemies touched by the noise square immediately move to the distraction's target node.

   i. While moving to the target node, their line of sight cones turn off.

   ii. Once the target node is reached, the enemy's line of sight cones turn back on and the enemy will patrol the new line of nodes. but ***only*** *in a horizontal direction*.

5. Knife Pickups:

a. The knife is a one time use per level pickup that allows the player to move onto a node occupied by an enemy and eliminate them from the level.

b. To pick up a knife, the player moves onto a node where a knife pickup is located.

c. Once picked up, it is saved until the player moves onto an enemy occupied node.

d. The enemy occupying said node is removed from play, along with the knife token.

e. Players cannot move through an enemy's line of sight to use the knife pickup; they must move onto an enemy occupied node from a side an enemy is not facing.

6. Win and Loss States:

a. To win, the player must reach the yellow goal node in each level without entering an enemy's line of sight cone.

b. The player loses the level when they enter an enemy's line of sight.

c. Upon losing the level, the player is able to retry the level and develop a new strategy to overcome the level's obstacles.

d. At any time, the player may use the “Restart” button to restart the current level.

7. Gameplay Feedback:

Nodes & the Player:

a. Nodes that the player may move to change their sprite to show a node with a target on it. Whenever the player moves, these nodes are updated when the player reaches their target node.

b. Mousing over a node within movement range highlights the node in green.

c. Clicking on a node plays a walking sound effect. The player character smoothly moves from their current node to their target node.

Enemies:

d. When enemies move, a walking sound effect is played. The enemy characters smoothly move from their current nodes to their target nodes.

e. Line of sight cones change color based on the player's proximity to them: The cone is green by default. If the player can move into a line of sight cone, that cone changes color to yellow. If the player moves into a line of sight cone, that cone turns red.

f. Moving into a line of sight cone also triggers a gunshot sound effect, an animation of muzzle flash on the cone's respective enemy, a moving exclamation mark above the enemy's head, a "dead player" sprite to appear, a death message, and a trigger that turns the screen black and white. After five seconds the level resets so the player may try the level again.

Distractions:

g. Picking up a distraction plays a "rummaging" sound effect. Throwing the distraction plays a "whoosh" sound effect for the throw and then a "clak" sound effect when the distraction lands on the target node. An animation of the distraction item moving smoothly to its target node is also played.

h. If an enemy is hit with the distraction range object, a question mark appears above their heads. A “hmm?” sound effect is played as the enemy quickly moves to the node where the distraction landed.

Knives:

i. Picking up a knife plays a “shiiiing” sound effect. The knife object follows the player’s position and appears above the sprite’s hand. Moving onto a node with an enemy while a knife is possessed plays a “stab” sound effect and creates a blood particle system. The affected enemy character’s sprite changes to be on the ground in a small pool of blood.

j. Picking up a knife also displays a small icon of a knife in the bottom left corner of the screen to indicate the player’s possession of a knife. When the knife is used, this icon is no longer displayed.

k. Mousing over nodes with a knife in hand displays a message box to indicate the ability to kill an enemy by moving onto nodes.

Mechanics & Elements Tables

Mechanics Table:

Mechanic Types

Mechanic Name

SPACE	TIME	OBJECTS	ACTIONS	RULES	SKILLS
Levels (Continuous)	Turns (Discrete)	Player Character	Using distractions	Goal Space (Operational)	Player Movement (Physical)
Nodes (Continuous)	<NA>	Stationary Enemies	Using a knife	Move one node per turn limit (Operational)	Discovering enemy patrol patterns (Mental)
<NA>	<NA>	Patrolling Enemies	Enemy Movements	Enemy Line of Sight (Operational)	Creating a movement strategy (Mental)
<NA>	<NA>	Distraction Pickups	Enemy Patrol Patterns	Move into LOS to lose (Operational)	Where to throw distractions (Mental)
<NA>	<NA>	Knife Pickups	Player Movements	Move player character to determine patrol patterns	<NA>

States of Objects:

Object Name

States of Object

PLAYER CHARACTER	**STATIONARY ENEMIES**	**PATROLLING ENEMIES**	**DISTRACTION PICKUPS**	**KNIFE PICKUPS**	**NODES**
Moving	Watching node in LOS	Waiting for player to move	Distraction on node	Knife on node	Node in player range
Waiting for enemies to move	Detecting player	Moving in direction of LOS	Distraction picked up	Knife picked up	Node outside player range
Using distraction	Killed by knife	Watching node in LOS	Nodes in range highlighted	Knife UI displayed	Node moused over
Killing an enemy	<NA>	Detecting player	Distraction Thrown	Kill UI displayed on node mouse over	Node clicked on by player
Caught by an enemy/killed	<NA>	Moving to distraction	Distraction landed	Knife saved until used	Node occupied by enemy
Reaching goal node	<NA>	Changing patrol route after distracted	Distraction removed from game	Knife used to kill enemy	Node in enemy LOS
<NA>	<NA>	Turning at end of patrol path	Noise square created	Knife removed from game	<NA>
<NA>	<NA>	Killed by knife	<NA>	Knife UI disabled	<NA>

Art/Sound Assets:

Asset name/type

Object for Asset

PLAYER CHARACTER	STATIONARY ENEMIES	PATROLLING ENEMIES	DISTRACTION PICKUPS	KNIFE PICKUPS	NODES	LEVELS & MENUS
Alive sprite	Alive sprite	Alive sprite	Pickup sprite (looks like brick)	Knife Sprite	Circle sprite (default)	Start button & text (main menu)
Dead sprite	Dead sprite	Dead sprite	Move to player when picked up animation	Follow player animation	In player range sprite (big circle with target)	Exit button & text (main menu & game end)
Move to node animation	Forward LOS cone sprite	Forward LOS cone sprite	Move to target node when thrown animation	Knife available UI element	Default in range gray material	Restart button & text (each level)
Holding knife	Flipped LOS cone sprite	Flipped LOS cone sprite	Noise range square sprite	Kill UI element on node mouse over	Moused over in range green material	Restart game button & text (game end)
Walking sound	Exclamation Mark for player detection w animation	Exclamation Mark for player detection w animation	Noise range square expand animation	“Shiiing” pickup sound	Yellow goal node sprite	Level backgrounds
<NA>	Green LOS material	Question mark when lured by distraction w animation	“Rummage/brick” pickup sound	Stab sound on enemy kill	<NA>	Blue overlay, grayscale, & bloom effects
<NA>	Yellow LOS material	Green LOS material	Throw sound	<NA>	<NA>	Rain Maker prefab (from Asset Store; made by Jeff Johnson)
<NA>	Red LOS	Yellow LOS	Landing sound	<NA>	<NA>	Blue

	material	material				buildings
<NA>	Gunshot sound	Red LOS material	<NA>	<NA>	<NA>	Pink buildings
<NA>	Muzzle flash animation	Gunshot sound	<NA>	<NA>	<NA>	Square buildings
<NA>	<NA>	Muzzle flash animation	<NA>	<NA>	<NA>	Rain sound
<NA>	<NA>	Move to node animation	<NA>	<NA>	<NA>	Wind sound
<NA>	<NA>	Walk sound	<NA>	<NA>	<NA>	Background music (menus and levels)
<NA>	<NA>	“Hmm?” lured sound	<NA>	<NA>	<NA>	<NA>

QA Plan, Data, & Analysis

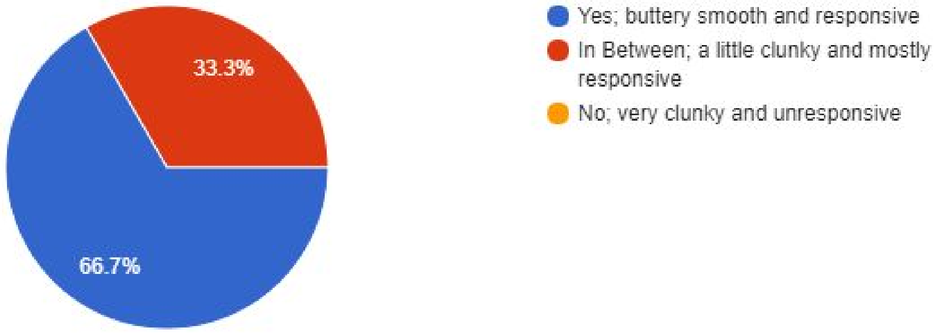
Test Plan

For the final round of QA testing, I had classmates and friends play the feature complete build of the game. This build includes all of the features, mechanics, systems, assets, and sounds of the game. My testers played through all three levels of the game to mainly test for any major bugs in the gameplay as well as any final tweaks and polish adjustments to game feel and feedback as well as overall clarity and understanding of the game’s mechanics.

Data & Results

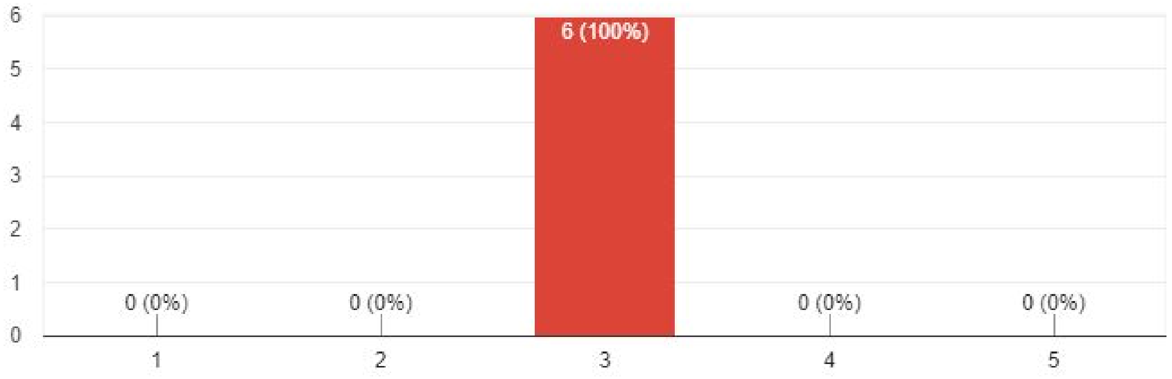
Did clicking on nodes to move feel responsive and smooth?

6 responses



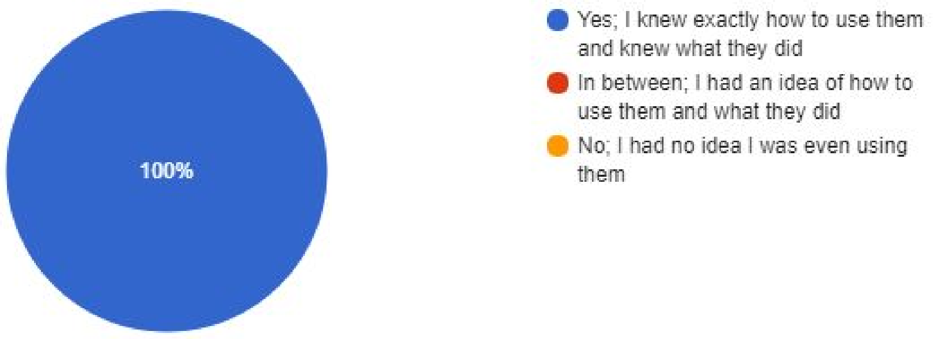
How did the movement speed of the player and enemies feel? (1 being 'Too slow', 3 being 'Just right', and 5 being 'Too fast')

6 responses



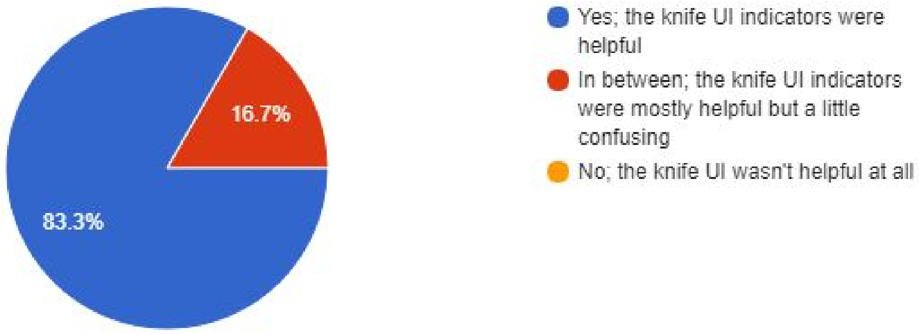
Did you understand how distraction pickups worked in terms of using them and their effect on enemies?

6 responses



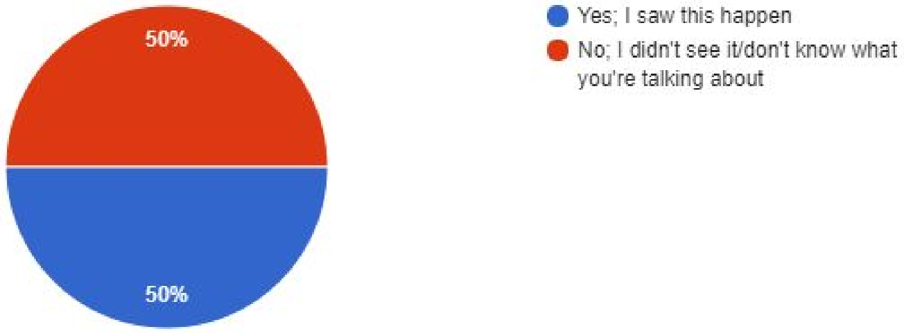
Was it clear when you were able to kill an enemy with the knife?

6 responses



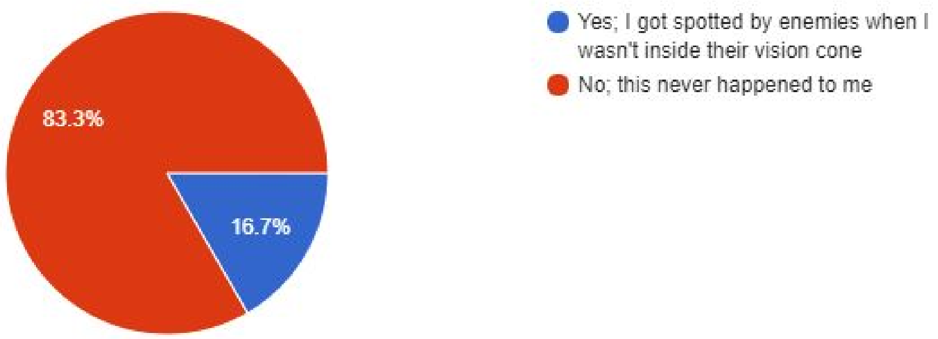
When using a distraction on a patrolling enemy, did their sprite sometimes not face the same direction as their vision cone?

6 responses



Were you at any point spotted by an enemy when you weren't supposed to be (i.e, you didn't choose to move into their vision)?

6 responses



Please describe any other bugs you may have encountered while playing

6 responses

there were error messages and moon walking guards

On level 2 I was able to move onto the same space as a stationary guard.

got stuck in the last level with two possible guards to kill in one node

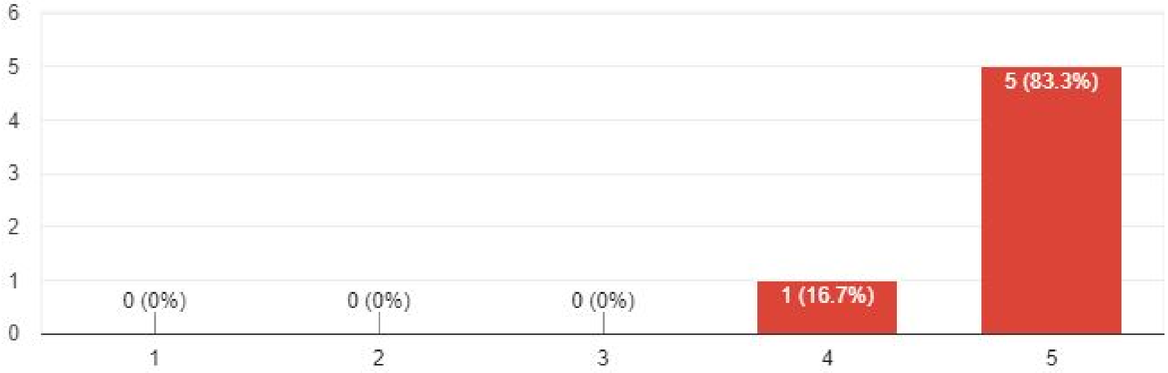
When you would enter a level pass node with an enemy watching, you would still move on

level 1 distracted guard had two vision cones and spazed out

Sometimes the cones wouldnt turn yellow

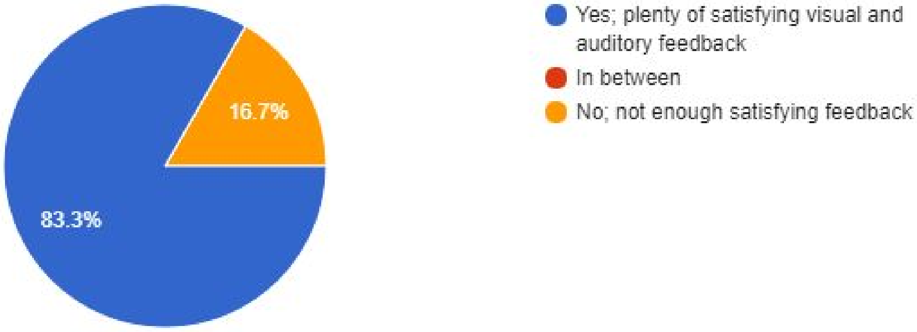
How was the overall feel of the game (visuals, sounds, music, atmosphere etc)? (1 being 'Poor', 5 being 'Great')

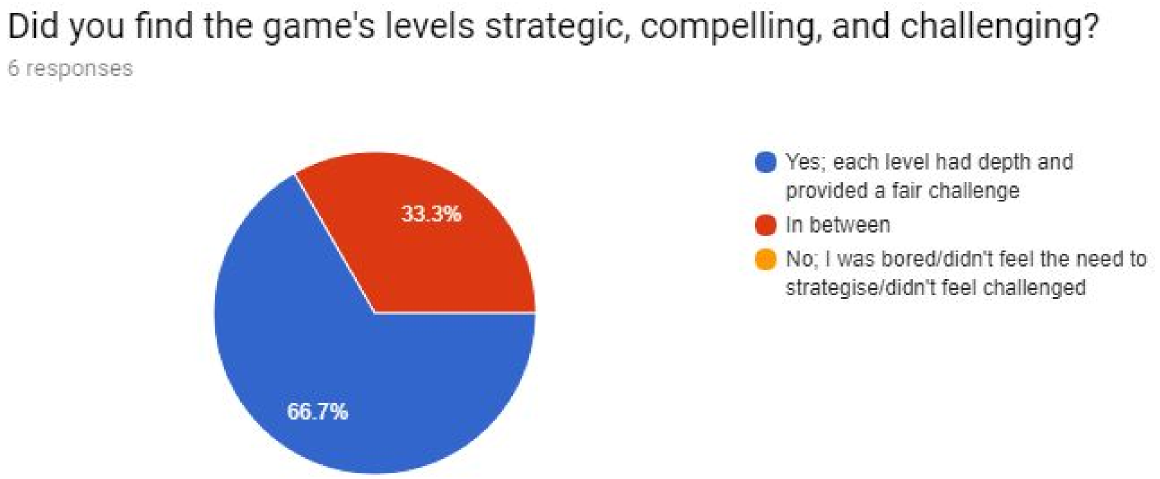
6 responses



Did the gameplay provide enough feedback, whether it was visual or auditory?

6 responses




Did you find the game's levels strategic, compelling, and challenging?

6 responses

Analysis of Data

Based on the responses for questions 1 and 2, I feel it is safe to say that the feel of the game's main mechanic (player and enemy movements) is solid and working as intended; no testers said the movement felt unresponsive and completely clunky, and every tester said the movement speed felt right.

Questions 3 and 4 were intended to test how easy it was to understand the game's two other primary mechanics (distractions and knives). All six testers knew exactly how to use the distractions, meaning the tutorial information at the beginning of the game was effective. Additionally, all but one of the testers felt the knife UI elements were useful and let them know when they could kill an enemy.

Questions 5, 6, and 7 were intended to test for known bugs as well as uncover any new bugs along the way. Half of the testers encountered a known bug where enemies sometimes face the opposite direction after being lured with a distraction. I attempted to fix this bug by adding a conditional statement to make the enemy sprite face a certain rotation when a certain vision cone is active; it works selectively. Most testers did not encounter a known bug where enemies sometimes move forward more than they should and detect the player when they should be safe. This bug has since been corrected. Finally, question 7 helped me find several other bugs that have since either been resolved or are an easy fix.

Finally, questions 8, 9, and 10 were meant to gauge the success of the overall game experience, aesthetic qualities, and gameplay feedback. Based on the results of question 8, all the testers thought the game had a good feel to it and had solid aesthetic qualities. Only one tester thought the game didn't have enough feedback; it should be noted that this tester played an earlier build of the game in class that was feature complete gameplay wise but did not have all of the visual and auditory feedback. Lastly, all of the testers either thought that the gameplay was strategic or engaging or somewhere in between; it should be noted that one tester said to me after playing that the level design had some minor flaws.

Digital Prototype Overview

Design Intent:

The goal of Freedom’s Silence is to capture the essence of traditional real-time stealth gameplay and translate it into a top down, turn based strategy/puzzle game for the iPad and Android tablets, with strategic gameplay based around movement, timing, puzzle solving, and light resource gathering. Set within the confines of a maximum security prison during a massive prison break, players will guide an escapee through the maze like interior and exterior of the prison, avoiding patrolling guards who will attack escapees on sight.

Target Audience:

Freedom’s Silence will primarily appeal to fans of real time stealth IP’s such as *Metal Gear Solid*, *Hitman*, and *Deus Ex* seeking to experience a game for iPads and Android tablets that adapts the core elements of real time stealth games to a turn based form; these elements include strategic navigation around obstacles, careful timing problems, and the ability to interact with AI patterns. Fans of visual and timing puzzles will also find appeal in the game’s memorization and movement mechanics. Finally, fans of prison escape films and the thriller genre will find appeal in the game’s prison break context, which will match the intensity of the strategic stealth gameplay.

Theme and Context:

Freedom's Silence takes place in a prisoner of war camp during a violent rainstorm. Players take on the role of a prisoner of war that managed to sneak out of their cell and is now being hunted relentlessly by the camp guards. In order to escape the camp and regain their freedom, players will guide the escaped prisoner through various encounters with guards, simultaneously avoiding, distracting, and eliminating the guards with strategy and careful timing.

Iterations from Physical Prototype:

- Gameplay Changes:
    - Stationary enemies can no longer be lured with distractions
    - Patrolling enemies behave slightly different when lured with distractions; instead of moving turn by turn to where the distraction landed, they move there instantly, and **only** patrol in a horizontal direction on their new path.
    - All enemies now have vision cones that change color to indicate the player's status; if the cone is green, the player is not in danger of being seen; if it's yellow, the player is in danger of being spotted (meaning the player can click on a node that will get them spotted); if it is red, the player has been spotted and killed, causing the level to restart.
- Aesthetic Changes:
    - Changed the setting from a prison to a prisoner of war camp in an attempt to make the context more interesting and allow for a better atmosphere.
    - Changed the color pallete to be more dark and gritty.
    - All sprites except for the distractions and knives have been changed; instead of being side facing images of characters, the sprites are now all top down characters.

    - Getting spotted by an enemy causes the player to be shot on sight, meaning enemies do no longer fully move to the player's current node when the player is spotted.
- Digital additions
    - Added sounds for every action as well as ambient rain and wind sounds.
    - Added a menu with a tutorial and credits screen.
    - Added three levels of increasing difficulty

Game Mechanics:

1. Three levels with nodes connected by lines with a single yellow goal space. Reaching the yellow goal space causes the player to go to the next level. When all three are complete, the players wins the game and can restart.
2. Node based movement to allow traversal of equal distances each turn. Any node adjacent to the player's current position can be moved to.
3. Enemy characters that the player must avoid and can interact with.
    a. Patrolling enemies that move.
    b. Stationary enemies that serve as obstacles.
4. Enemy patrol patterns that are predetermined at the start of the level. Enemies move back and forth along a line of nodes until they are lured with a distraction.
5. Enemy "line of sight" mechanic to facilitate the loss state. Moving into an enemy's line of sight causes the player to lose the game.
6. Distractions that allow the player to lure enemies to a specific node and force an enemy to change patrol patterns, Useful for creating openings in patrol patterns to sneak through.
7. Knife item that allows the player to eliminate an enemy from the level. One time use only.

Gameplay Rules:

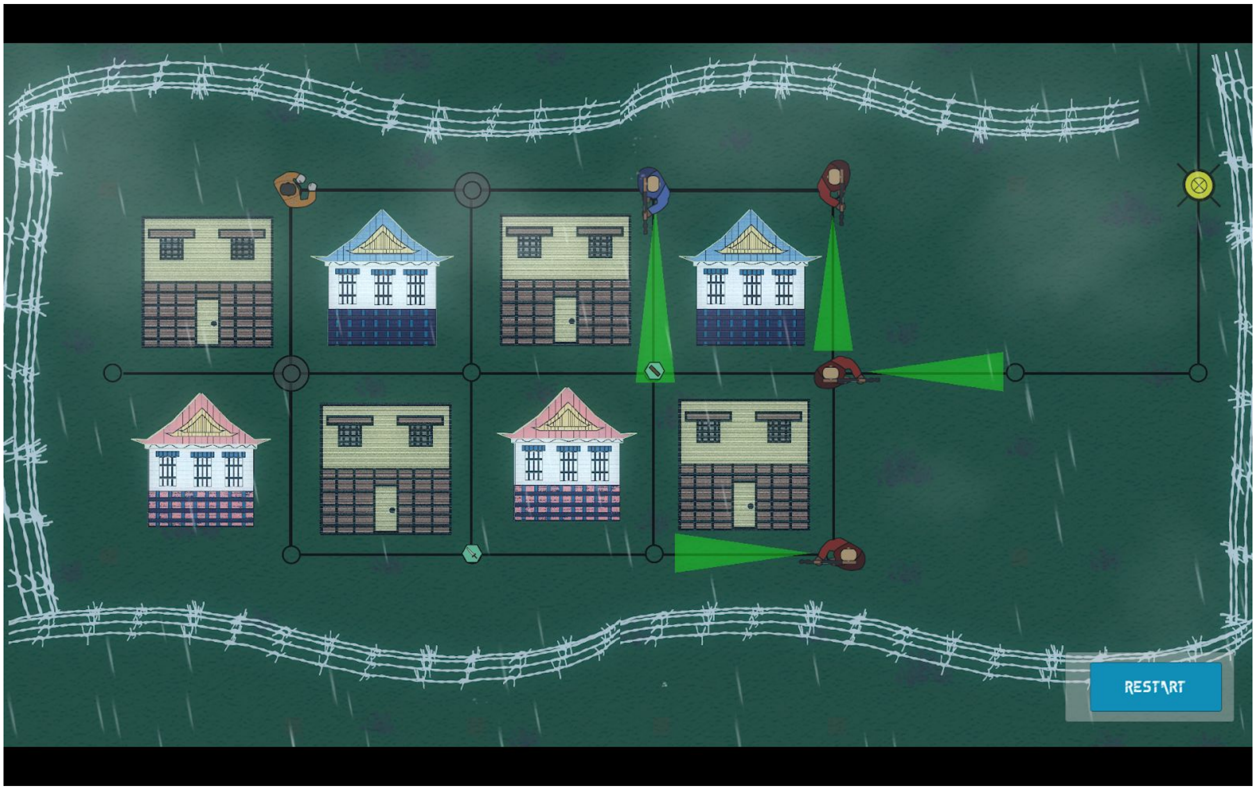
1. Turn based movement.
2. Player takes turn with AI enemies
3. Two types of enemies: patrolling and stationary.
    a. Stationary enemies are not affected by AI turns
    b. Patrolling enemies move back and forth along a set line of nodes; this is their “patrol route”.
4. Player and patrolling enemies move only one node during their turns.
5. Player can move to any adjacent node regardless of direction.
6. Patrolling enemies only move in two directions depending on which direction is their front:
    a. Vertically facing patrolling enemies only move up and down along their patrol route.
    b. Horizontally facing patrolling enemies only move left and right along their patrol route.
    c. Front facing direction is determined by the direction the character’s line of sight faces.
7. Patrolling enemies do not stray from the line (patrol route) they start the level on unless they are lured with a distraction.
    a. They face different directions depending on which way they are moving.
    b. When they reach the end of their patrol route, their sprite is flipped to switch their line of sight to the opposite direction.
8. Stationary enemies are more like traps or obstacles to the player than AI opponents.
    a. They face their starting direction throughout the entire game, and **cannot** be lured with distractions.
9. Player has two other methods of interaction with the AI:
    a. Distractions

    b. Knife

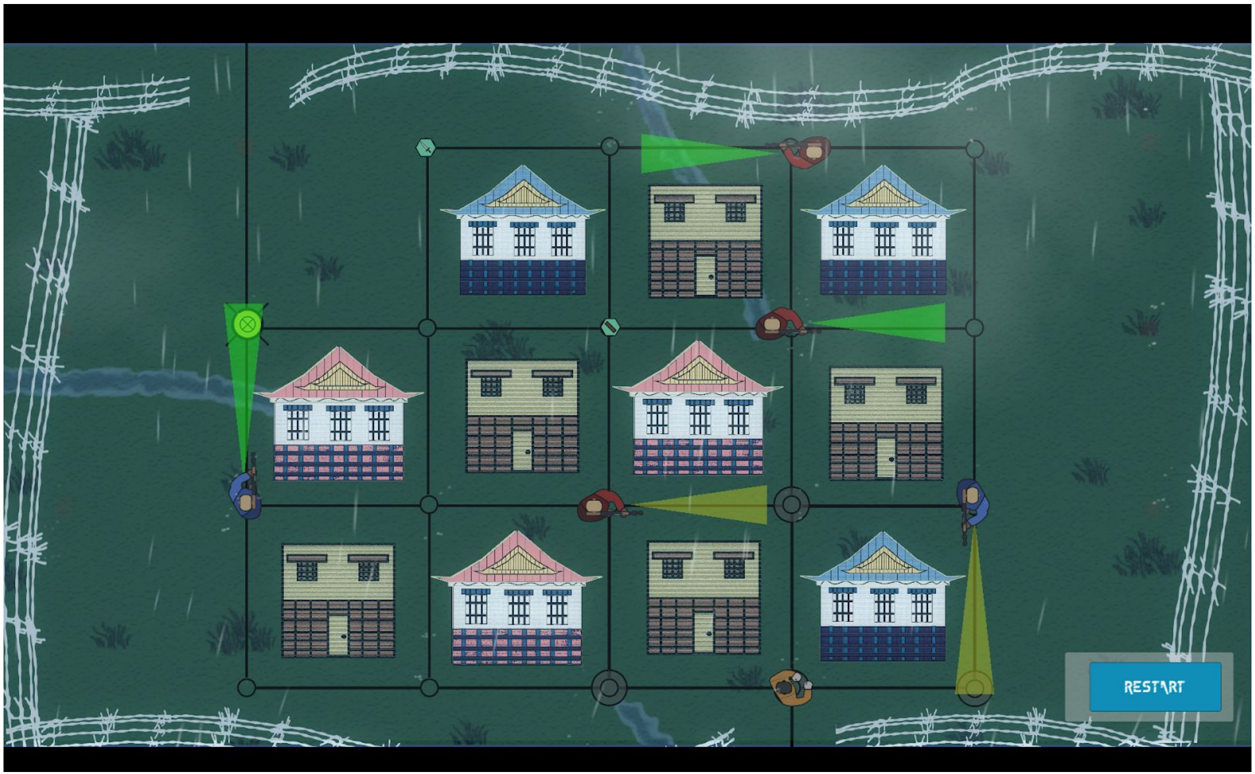
10. Distractions allow the player to lure an enemy away from their current position.
    a. When a distraction is picked up, any node that could be moved to is in throwing range.
    b. The distraction cannot be saved for later and must be used immediately once it is picked up.
    c. Clicking on a node in range throws the distraction to that node and creates a “noise” square.
    d. Patrolling enemies touched by the noise square move to the distraction target node immediately.
    e. Once a lured enemy reaches the distraction target node, their patrol pattern changes to the new line of nodes they are on, but **only** in a horizontal direction.
11. The knife is a one time use pickup that allows the player to move onto a node occupied by an enemy and eliminate them from the game.
    a. Once picked up, it is saved until the player moves onto an enemy occupied node.
    b. The enemy occupying said node can no longer detect the player.
    c. The knife item disappears after being used.
12. To win, the player must reach the yellow node of each level without entering an enemy’s line of sight.
13. The player loses the level when they enter an enemy’s line of sight:
    a. An enemy’s line of sight extends to one node directly in front of the enemy.
    b. This node must also be located at the direction the enemy is facing
    c. In order to lose the level, the player must *move* into the line of sight; if an *enemy* moves and the player happens to be where their line of sight is, the player does not lose the game.
    d. Entering a line of sight resets the level and allows the player to try again.

Game Objects:

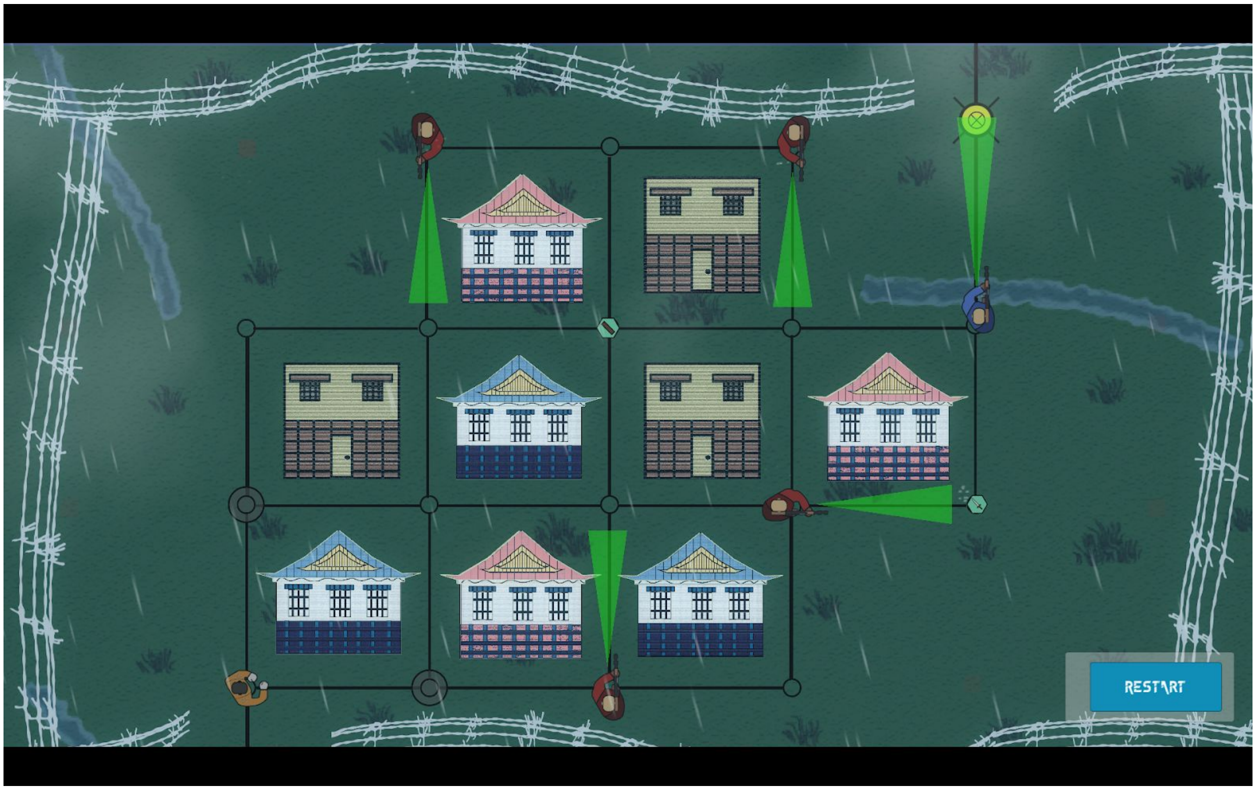
1. Overview of level 1.



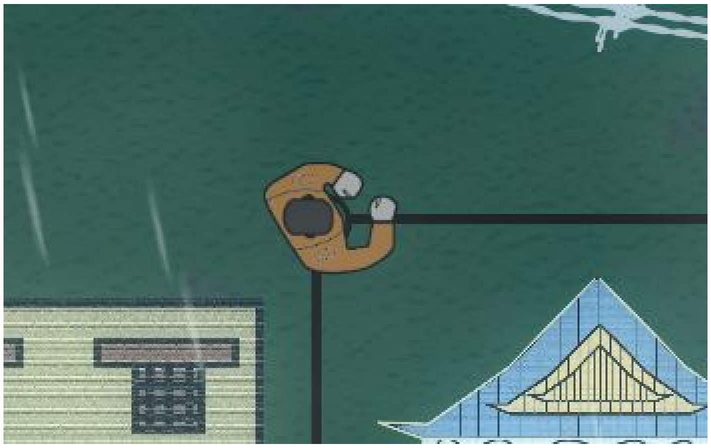
2. Overview of level 2.



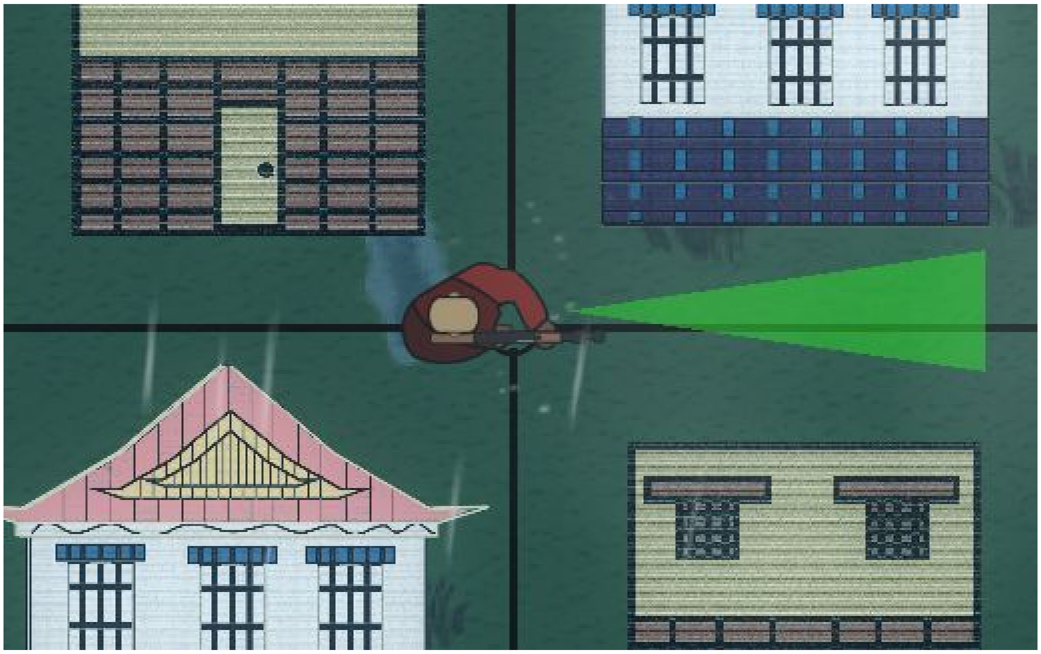
3. Overview of level 3.



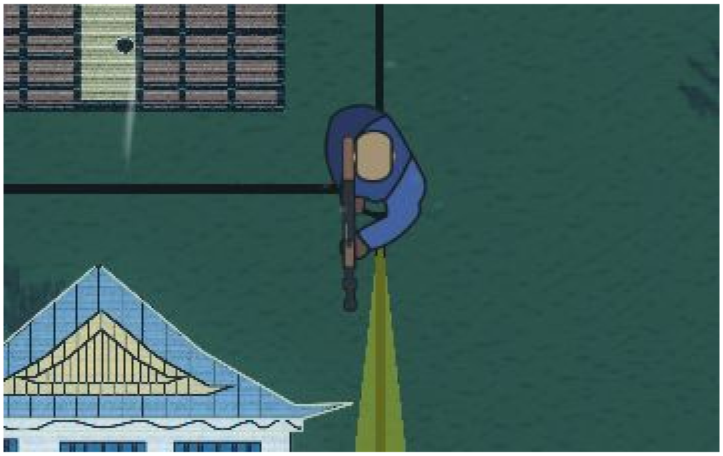
4. Player character



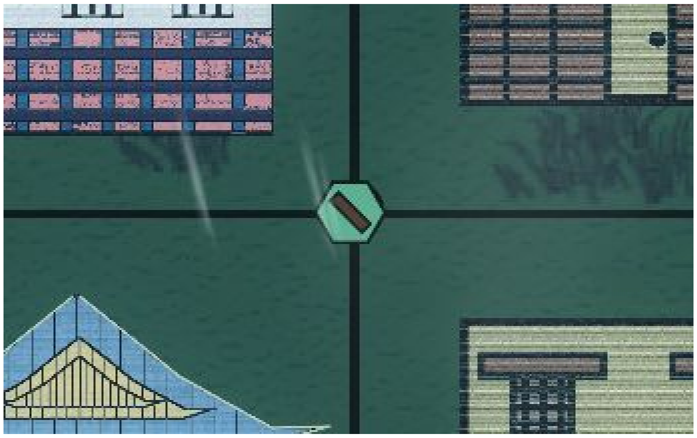
5. Patrolling Enemy



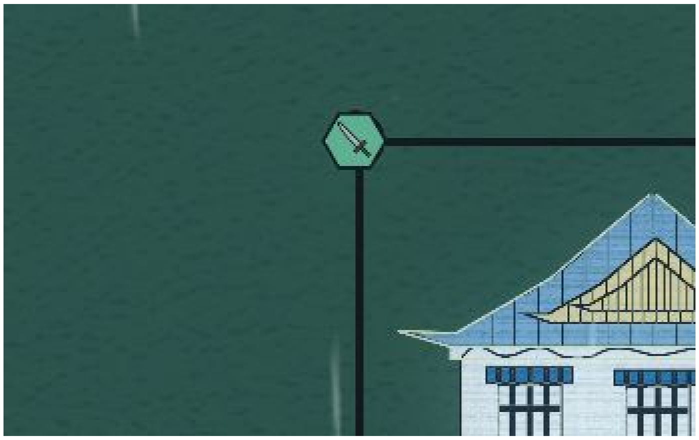
6. Stationary Enemy



7. Distraction item

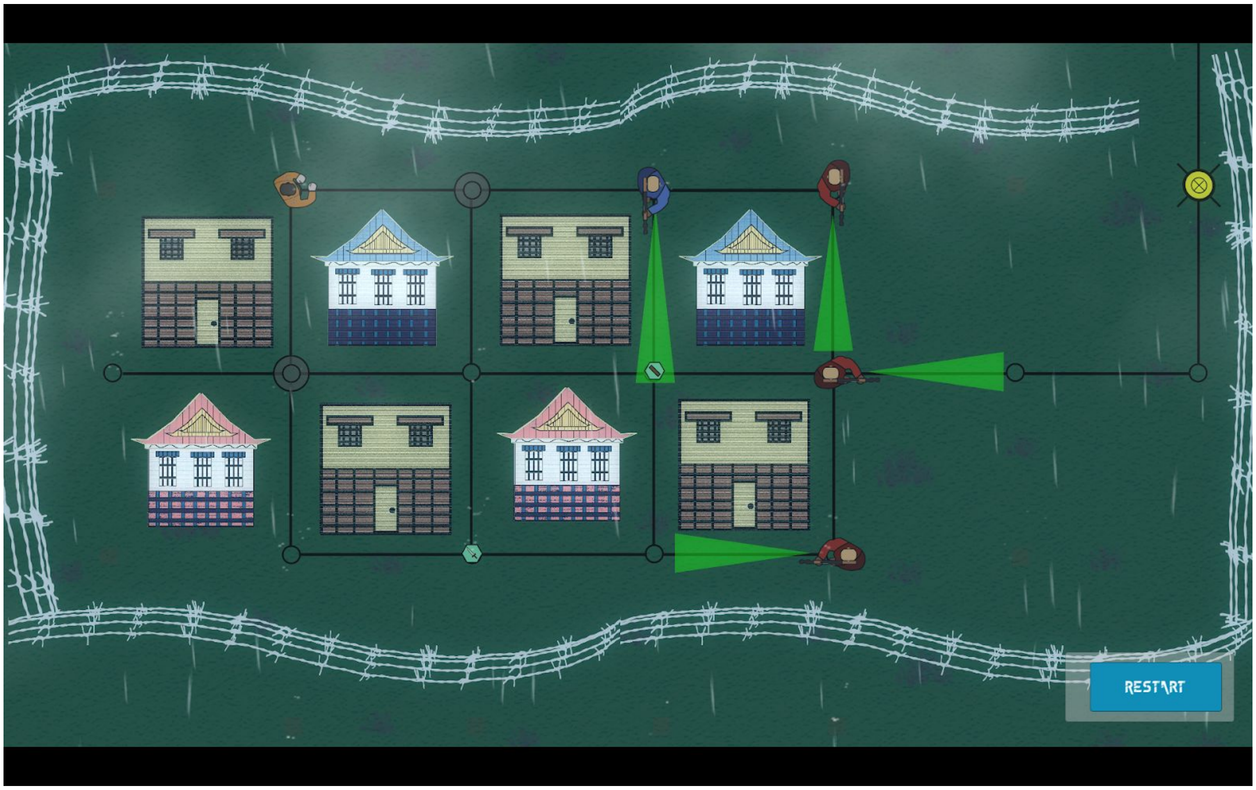


8. Knife item

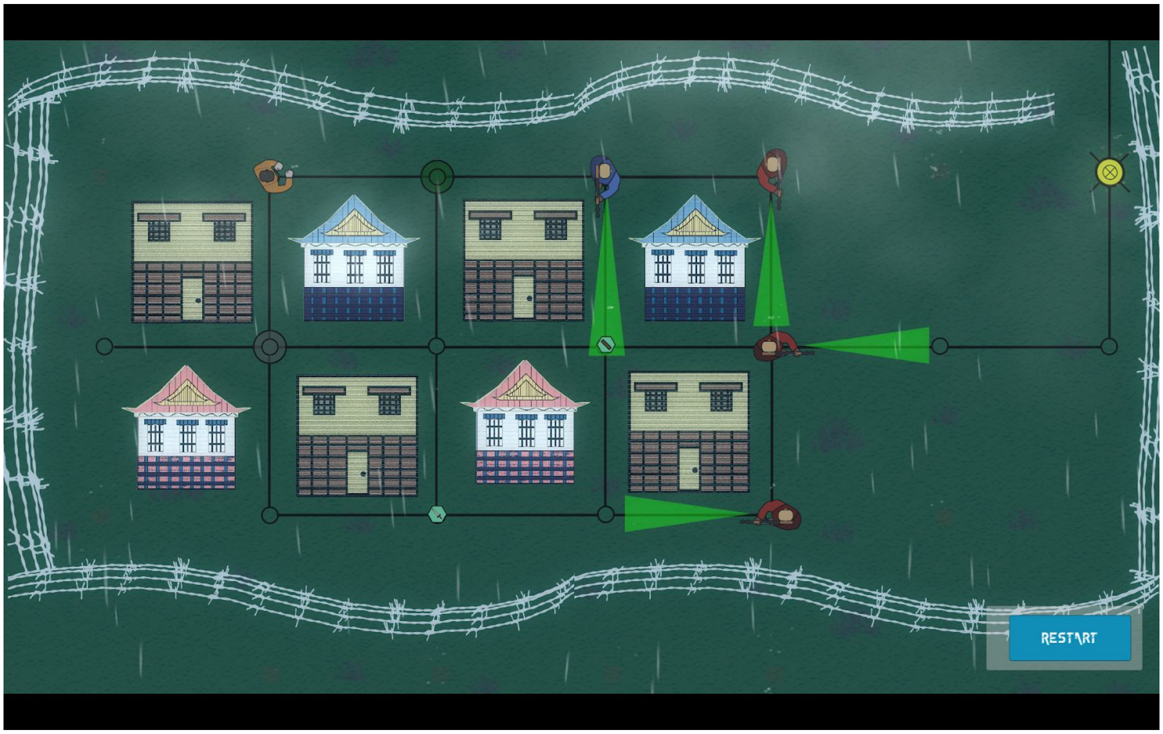


Core Game Loop Sequence: Level 1 walkthrough for demonstration:

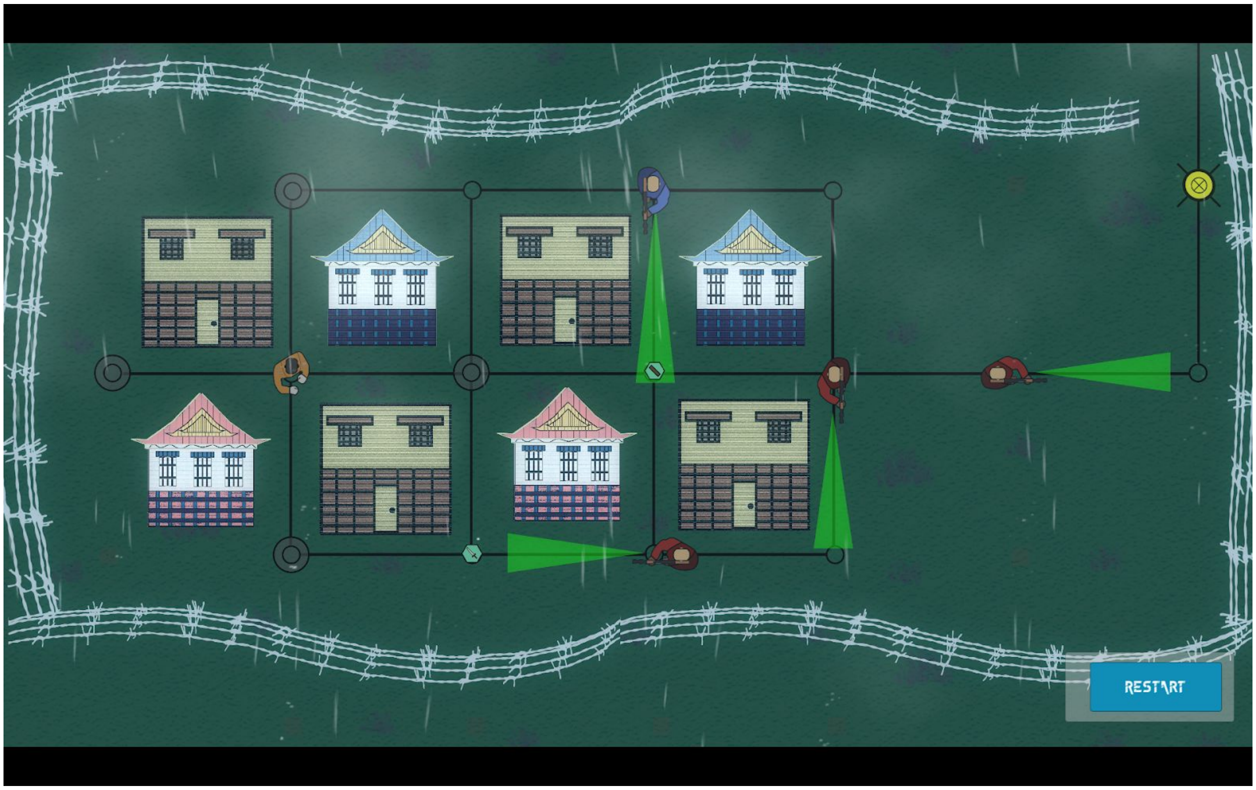
1. Level start. Nodes with target over them are in player range.



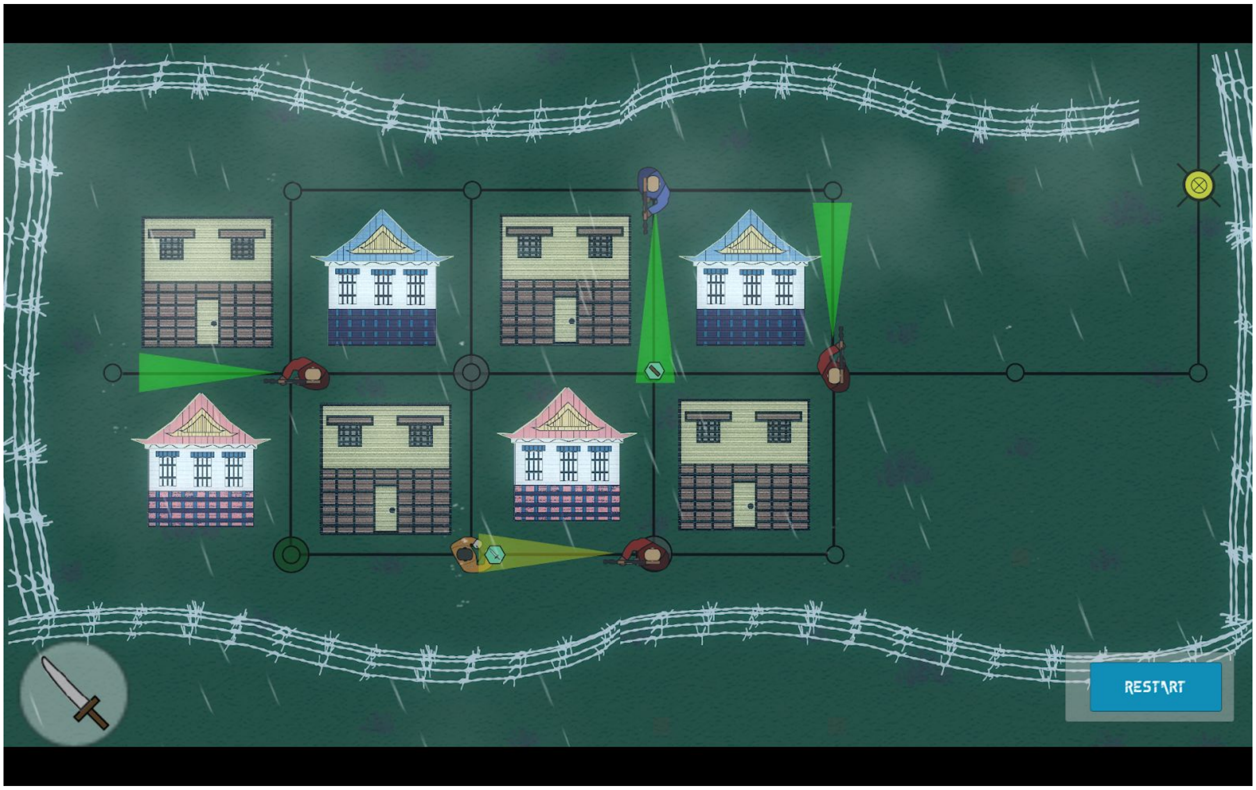
2. Player mouses over a node; note the green highlight.



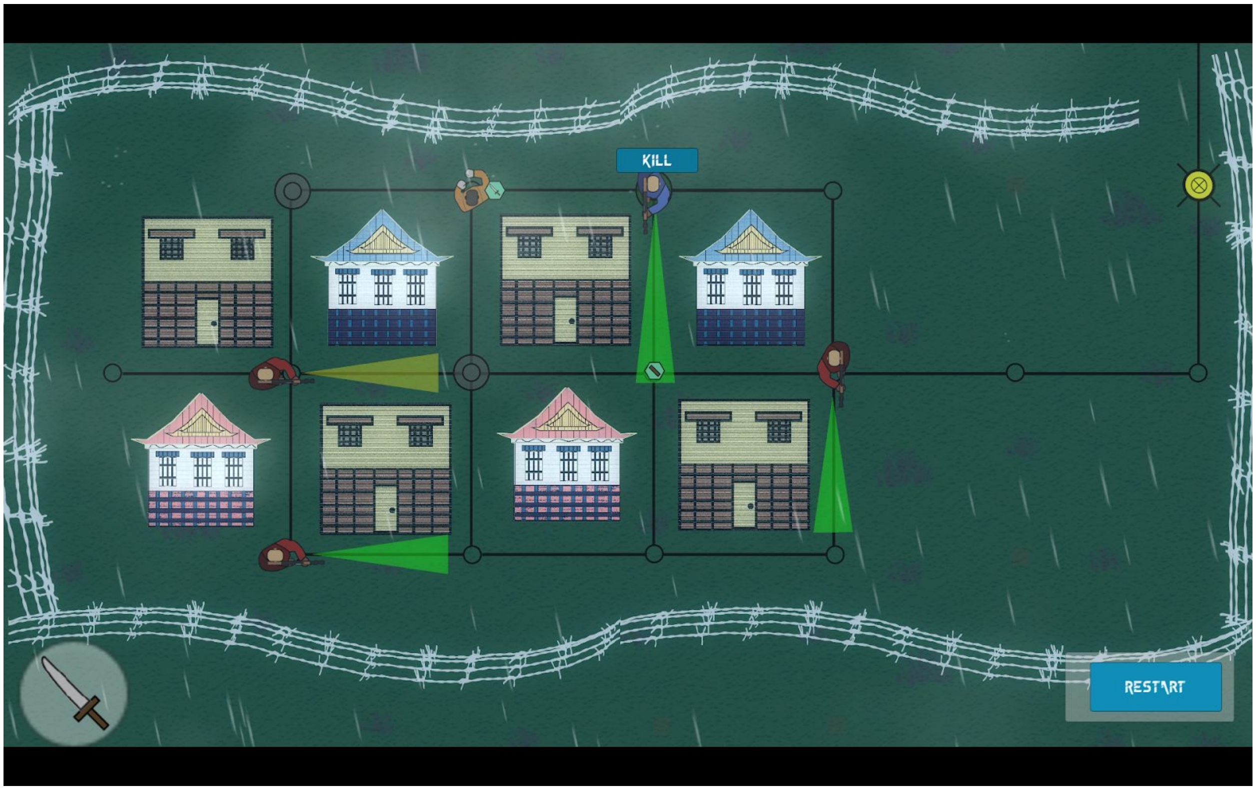
3. The player moves to a new node. Note the change in the player sprite’s direction and the updated enemy positions.



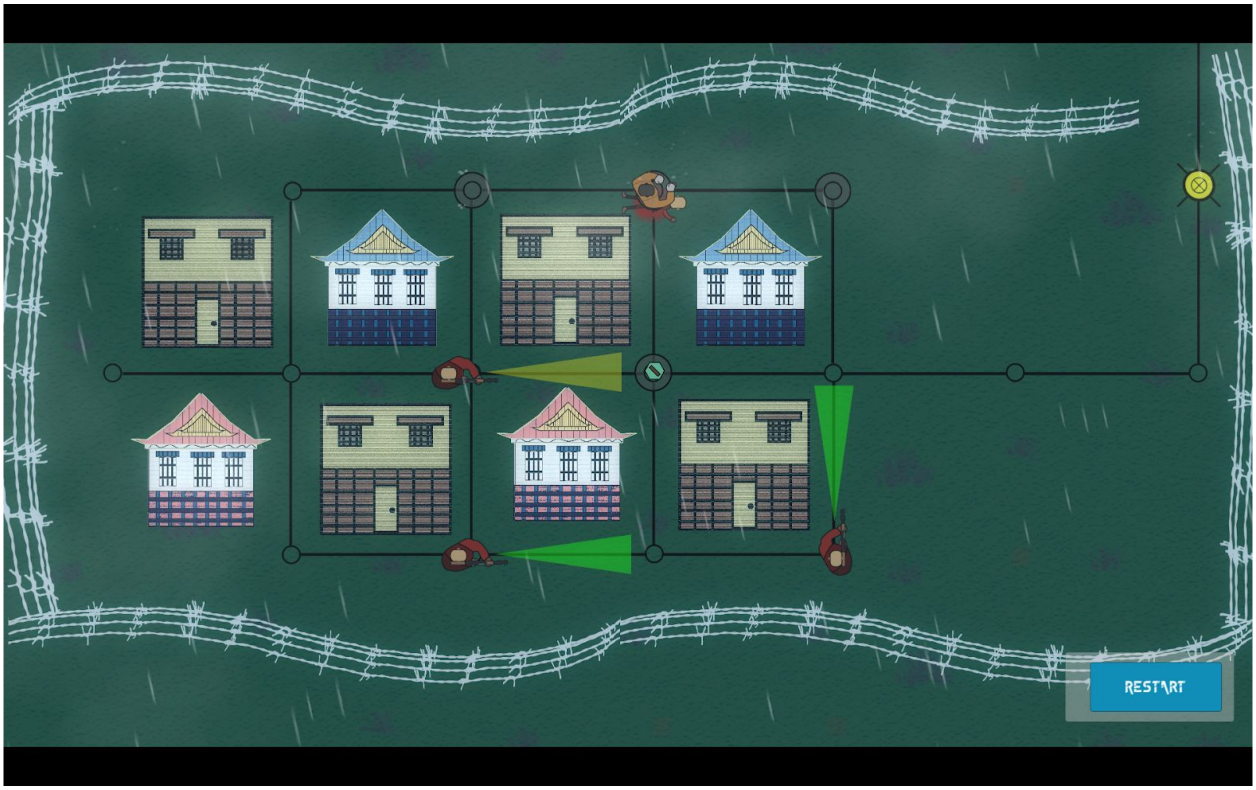
4. After a few turns, the player acquires the knife. Note how although the player’s sprite is inside of the enemy vision cone, the player did not choose to move into the line of sight, meaning they are not detected. Also note the popped up knife UI in the bottom right corner



5. The player maneuvers to kill the stationary guard looking at the distraction object. Note the “kill” popup that displays when the player mouses over an enemy with the knife object possessed.

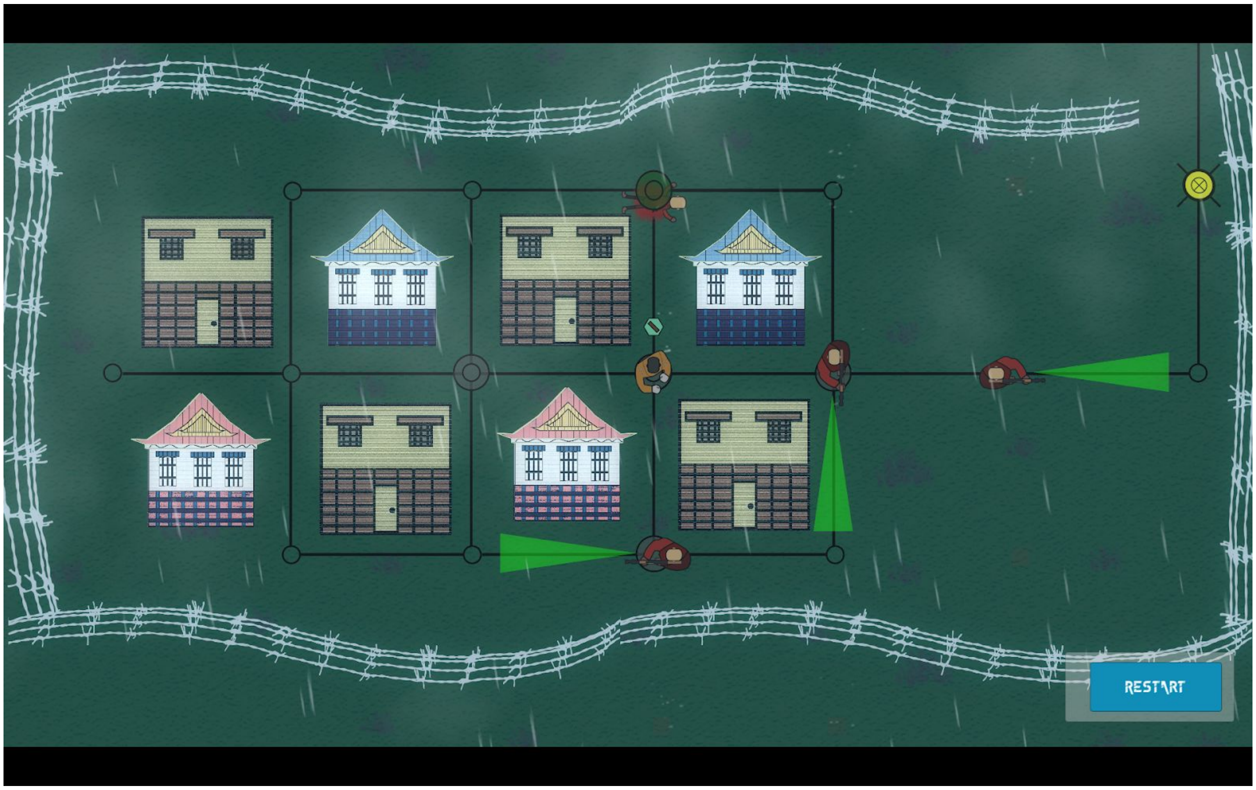


6. The player kills the enemy. Note the removal of the knife sprite and UI, as well as the change in the enemy's sprite

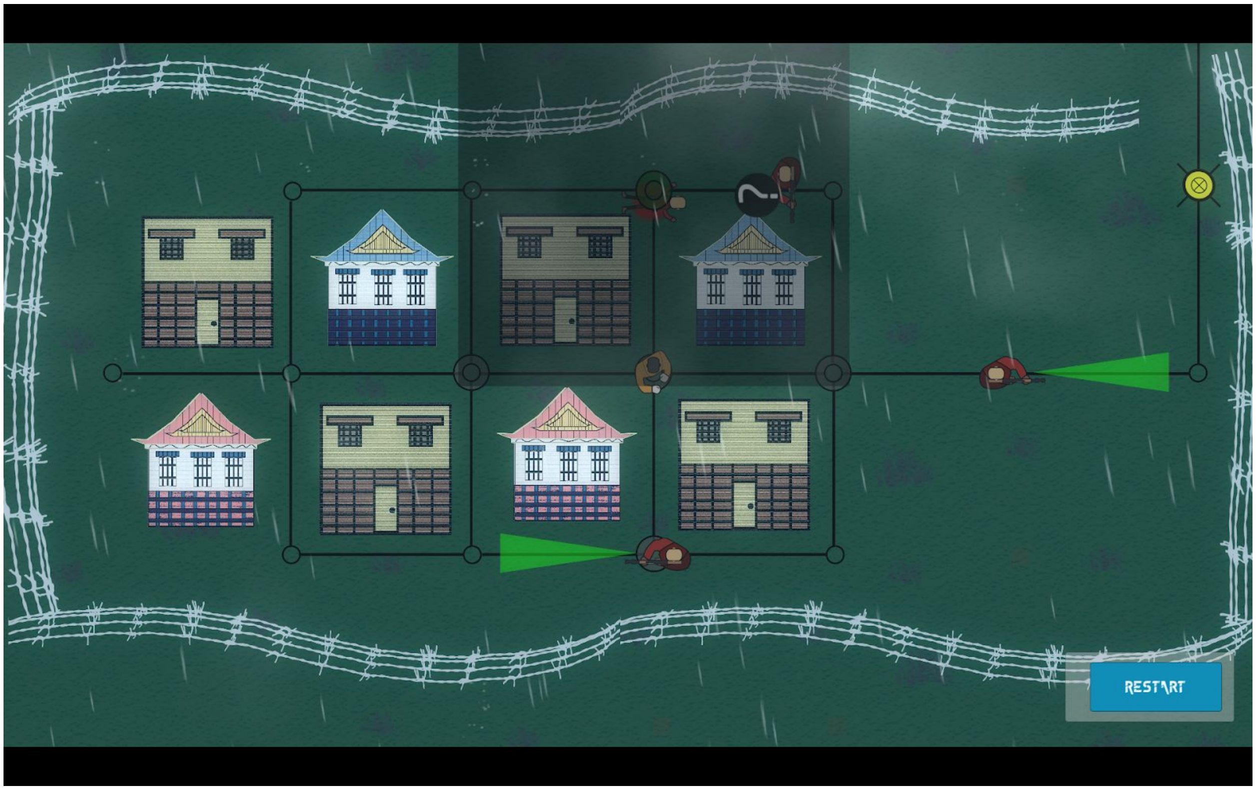


7. Now that the stationary enemy is dead, the player can pick up the distractions.

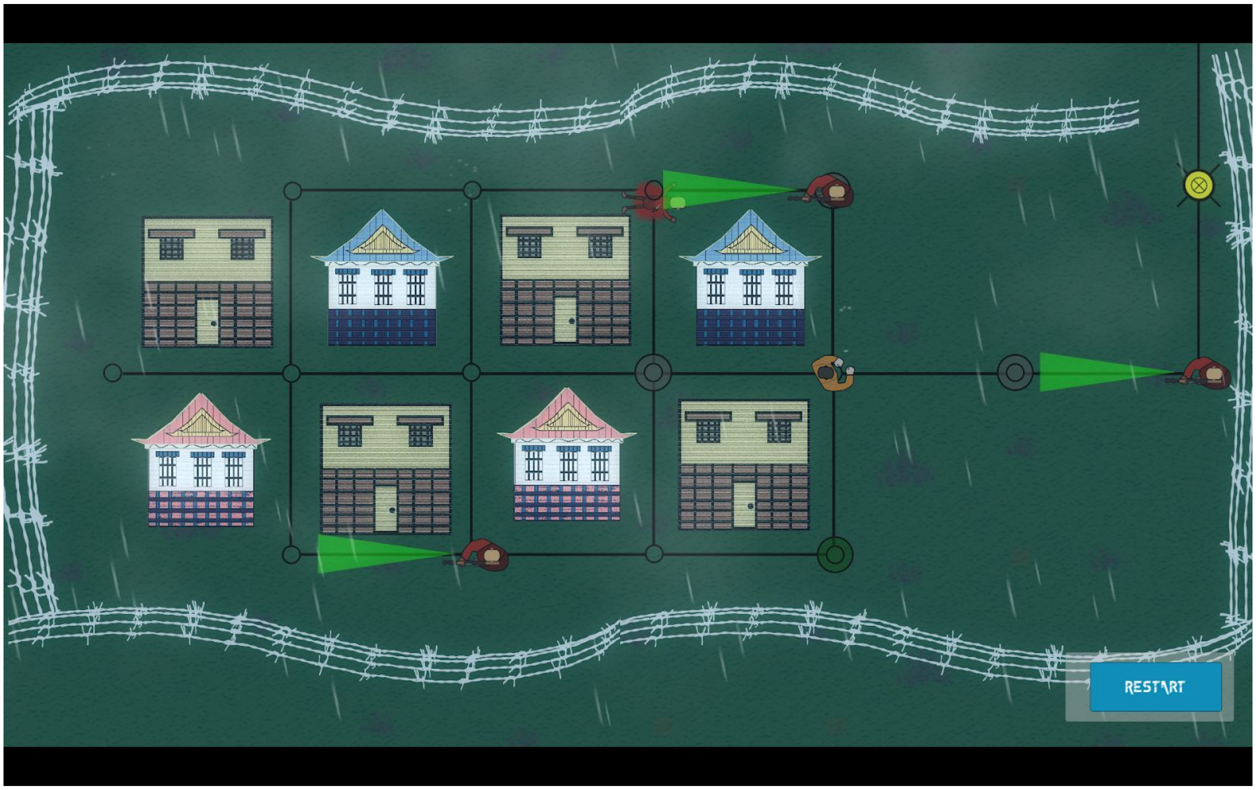
   Note that the nodes in range are where the player may throw the distraction to



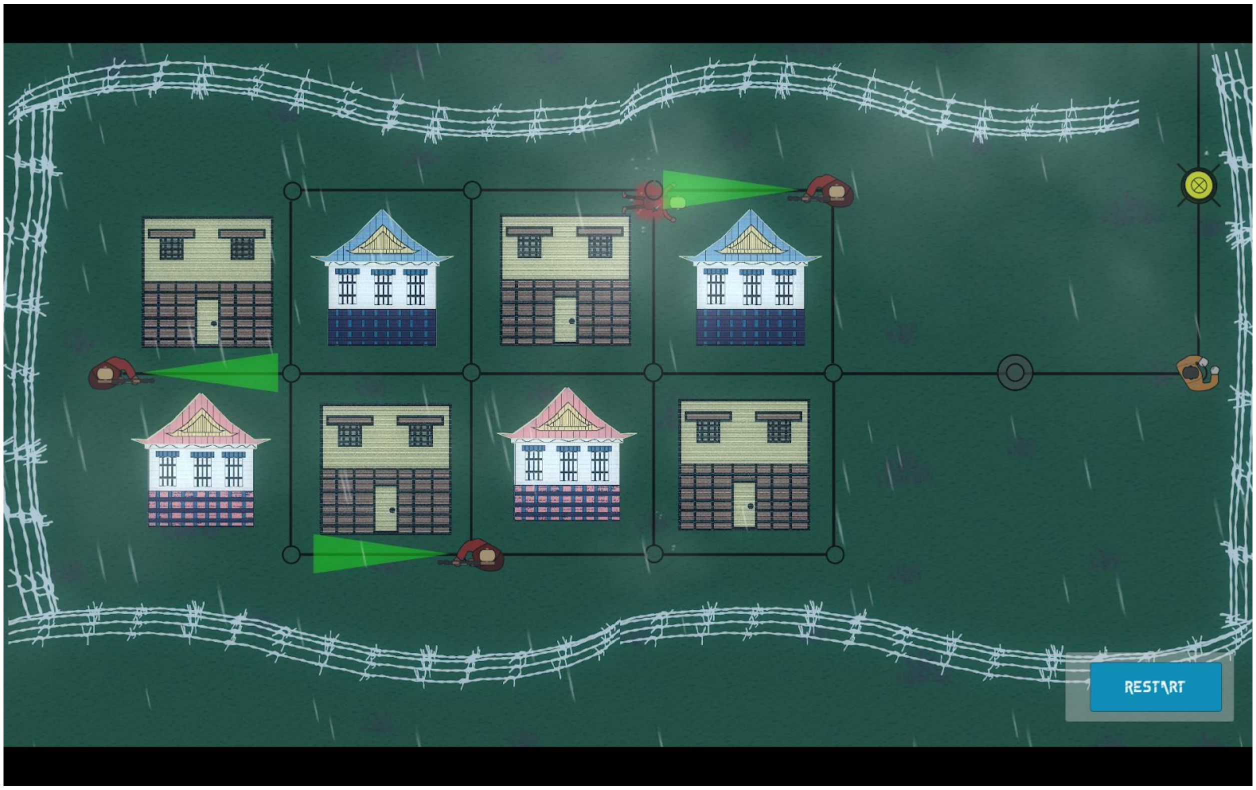
8. The player throws the distraction, instantiating the noise square, which collides with the vertically moving enemy and lures them to that position



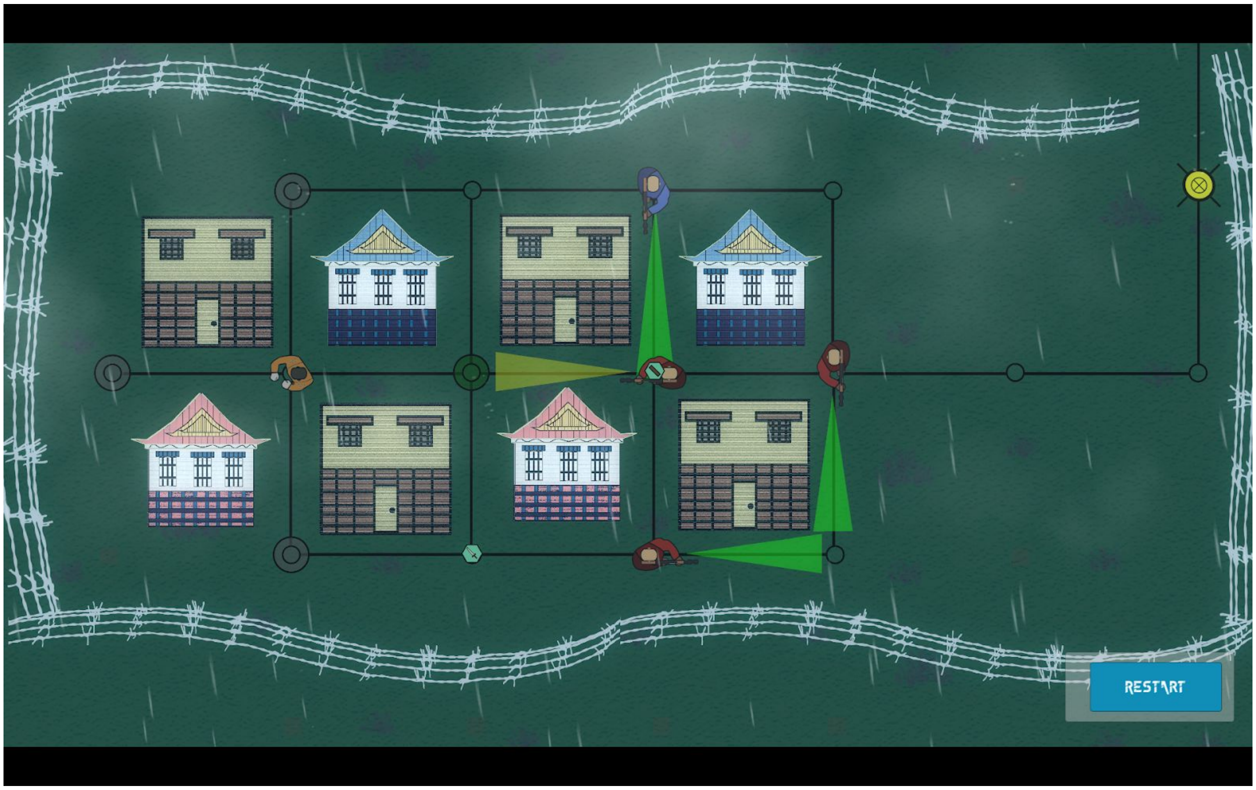
9. The lured enemy now patrols left and right along the line where the distraction node landed. The player also now has an opening to reach the goal node, since the previously vertical enemy was blocking the path



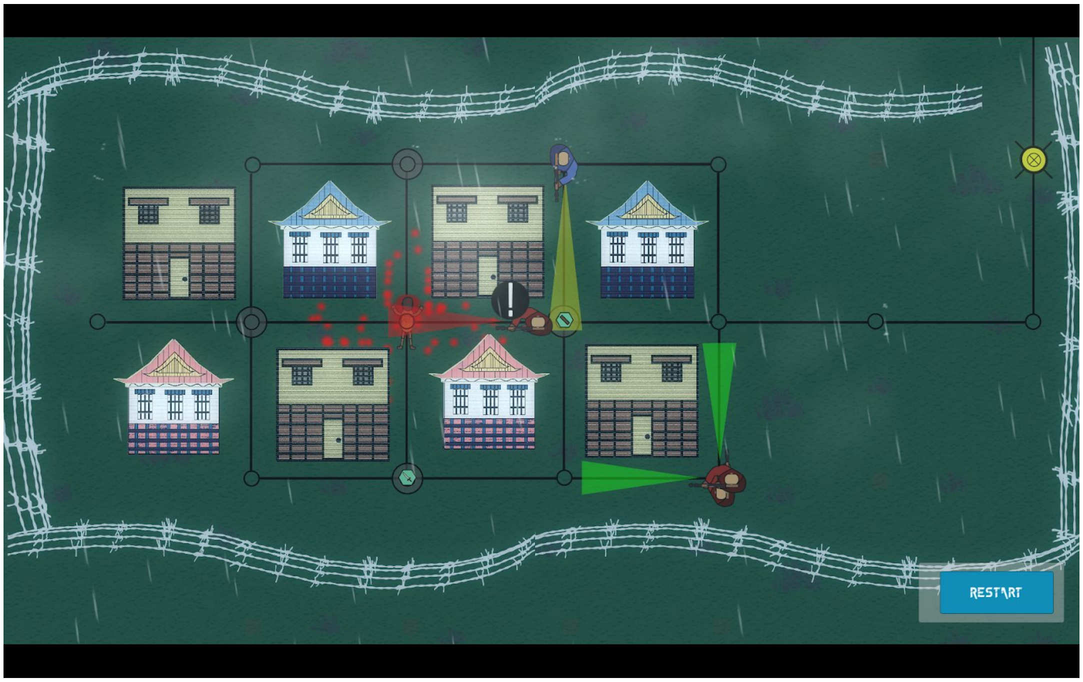
10. The player makes their way to the goal node to move onto the next level



11. Loss state demo (1 of 2): note how the guard's vision cone is yellow, meaning if the player clicks on the green node…



12. Loss state demon (2 of 2): …they are spotted and killed by the enemy. Note the change of the enemy vision cone color as well as the exclamation mark that appears to indicate detection of the player



Postmortem

I felt this experience of designing and building a game from the ground up in 6 weeks was not only an extremely helpful (and often stressful) learning experience but also a lot of fun. I really loved making this game, especially when it came to designing the systems and mechanics. I also got the opportunity to do (mostly) all my own sound design and compose a short original song for the game, which I think will be invaluable to me as I pursue the Sonic Arts Specialization.

What Went Right

1. Designing the game’s mechanics and systems to work together in harmony
2. Succeeding at the intended experience (based on QA feedback results)
3. Implementing player movement and both pickup types into Unity
4. Recording all but one of the game’s sound effects which successfully match their visual counterparts
5. Staying on schedule via Trello and having plenty of time to complete everything I scoped
6. Staying within scope

7. Bug fixing; as of the current build, there is only one known bug. Sometimes when moving, nodes will have the moused over material when the player hasn't moused over them.
8. Learning. A lot of learning
9. I had a lot of fun!

What Went Wrong

1. I'm not very happy with the way I programmed the enemy movement mechanics. While they work fine and mostly as intended, it is a very clunky and not efficient way of doing it. I had to actually modify the way enemy's behave after using distractions because of the way I coded the system. Despite this, the intended experience of the game is still there.
2. Because of the way I coded the enemy movement system, I spent a lot more time than planned working on the enemies and trying to make them function properly. This cost me some time for other class's assignments.
3. Building the game caused a host of new bugs to appear that didn't show up in the Unity editor, which caused me to stay up longer than I should have one night. All of these bugs have been since been fixed

What Was Learned

1. Documentation is really the key to all of game design. Without having these documents with me as a reference while coding the game, it would have been a far more time consuming process.
2. Writing out algorithms and psuedo code before programming anything really helps when the time comes to program.
3. Creating code for a turn based game is far harder than I initially thought it would be. As someone who consistently yearns for a challenge, I had no problems with this.
4. Don't treat art creation like a chore. I'm not very artistically inclined when it comes to visual arts which often makes me hate making art for my games. For this game I stopped treating it like a chore and more of a fun thing I was doing and I actually found myself not only enjoying making the art but also producing better quality art than I ever had before.
5. Implement feedback as soon as possible.

It would take a few more pages to list everything I learned from this project

What Could Be Done Differently

1. Enemy implementation, as stated before, was not very efficient or optimized. I would definitely try and find a different way to implement this system in future games
2. Plan more time for things going wrong to prevent stress from building up when stuff doesn't work properly
3. Make sure all errors are gone from the debug log before building an executable in Unity.