Little Stitches 7.0

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Summary

Sum up your game idea in 2 sentences. A kind of elevator pitch. Keep it simple!

Two players take turns placing stitches to lead a ladybug that wants to sew a quilt for a sweet grandma. They are cooperating to move the ladybug around, but also they are competing to be the ones to claim the most paths and platforms

Gameplay

What should the gameplay be like? What is the goal of the game, and what kind of obstacles are in the way? What tactics should the player use to overcome them?

The gameplay is turn based strategy where you have to place your threads strategically to block your opponent and work your way around your opponent's paths while claiming/stealing the most platforms to get a higher score.

Stretch Goal: Players can use items to benefit themselves or hinder their opponents.

Mindset

What kind of mindset do you want to provoke in the player? Do you want them to feel powerful, or weak? Adventurous, or nervous? Hurried, or calm? How do you intend to provoke those emotions?

In the players we want to provoke a sense of adventure and competition where you need to sometimes cooperate with your opponent but you also can sabotage them to benefit yourself. The biggest challenge is your opponent and how they play so every player has to be ready to play around their opponent if they want to win. It is also important for players to take advantage of the items in order to create more paths and collect more platforms.

Technical

Screens

1. Title Screen
    a. Instructions Button: goes to the instructions screen/tutorial
    b. Credits Button: goes to the credits screen
    c. Start Button: begin the game
    d. Quit Button: button to exit the game
    e. Background Image
    f. Game Title/Logo
2. Credits Screen
    a. team member names and roles
    b. attribution 3.0 mentions (if any)
    c. back to main menu button
3. Instructions Screen
    a. Story
    b. Tutorial
    c. Controls
    d. Visuals to assist the controls
    e. Rules
    f. Visuals to assist the rules
    g. Items
    h. Visuals to assist the items
4. Player Select
    a. back to menu button
    b. game mode selection
    c. “start game” button
5. Game Play
    a. A pause menu button
        i. A pause menu screen
            1. back to menu button
            2. instructions window
    b. Player score at the top
    c. A time countdown for each turn (ranges from 10 to 20 seconds depending on the game mode)

1. End Time
    a. An ending screen/animation which indicates the game has been finished
    b. A score counter that afterwards announces “Player #/Color Wins!”
    c. A return to main menu button
    d. A Quit button

Controls

How will the player interact with the game? Will they be able to choose the controls? What kind of in-game events are they going to be able to trigger, and how? (e.g. pressing buttons, opening doors, etc.)

The player can mainly interact with platforms and thread. The controls have to be mostly mouse based due to the dragging function of the thread, and once thread is drawn the ladybug automatically moves to the chosen platform. The player can also collect randomly spawned items and are forced to use them on their next turn by using the mouse to select them from a pop up menu and using them on the map.

Other buttons/keys related to more functions?

The game is exclusively controlled with the mouse, you can press escape to pause however there is also a mouse pause button.

Mechanics

Are there any interesting mechanics? If so, how are you going to accomplish them? Physics, algorithms, etc.

The mechanics are building paths to advance yourself and hinder your opponent while strategically claiming as many platforms as you can.

Our team will utilize Unity physical system to achieve drop and drag effects. Items will spawn every X turns (e.g. 5, 10, 20, TBD from playtesting) with a limit of 3 items on the map at once if they are not gathered in the time limit. Items will spawn at least 2 move steps from the player and any other item.

These mechanics will be implemented using a combination of simplistic level design and randomization of key elements including the Items. The gameplay will focus on player interaction and environment manipulation.

Themes

Theme: Crafty

1. Game Level
    a. Mood
        i. Bright, Fun, Cute
    b. Objects
        i. Background
            1. Sewing Pattern BG
            2. fabric patch text boxes
            3. Doily UX/UI
        ii. Character
            1. Button ladybug
        iii. Interactive
            1. Item Patches
            2. thread
            3. Fabric Platforms
            4. Sewing Tool Items
2. Screens/Menus
    a. Mood
        i. Soft, Welcoming, Cute
    b. Objects
            1. Fabric
            2. Stitches
        ii. Interactive
            1. Patch Buttons

Game Flow

1. Players start on the main menu, they can view the instructions, credits, or start the game

2. A player presses the start button to begin the game, they are taken to a screen where players can select the game mode they want (regular stitch or speed stitch)

3. Once the game mode has been selected, players start in the middle of the map. Both players control the same character but one player's color is red, and the other player's color is blue

4. The first player chooses where to place their thread and claims their first platform. Players can move the camera by using the right mouse button to click and drag.

5. The second player follows suit and they take turns going around the map placing threads and claiming platforms

6. Occasionally items will spawn on platforms around the players, once one is collected they will use the item before the end of their turn

7. Once the last platform is claimed, the game ends and the players are taken to a win screen

8. On the win screen each player's score is tallied up based on paths created (1 point) and platforms claimed (2-3 points)

9. The player with the highest score is announced as the winner

10. Players are given the options to play again or exit to the main menu

Project Scripts

1. DragCamera
    a. Controls the camera using the right mouse button to click and drag.
2. DragToStitch
    a. Handles the creation of thread paths between platforms
3. GameManager
    a. Main controller for all methods
    b. CreatePath(...)
    c. CharacterMove(...)
    d. CheckExist(GameObject path)
    e. ActivateItem(int item)
    f. ToggleMinimao()
    g. RandomSpawn() // of items
4. GeneralManager()
    a. Pass information between scenes
5. HelperText
    a. Instructions helper text
6. PauseMenu
    a. Handles Pause functionality
7. Platform
    a. Fields:
    b. int platBelongsTo
    c. int platLockedBy
    d. int score //value of plat
    e. bool haveItem
8. PlatformIndicator
    a.
9. PlayerController
    a. methods:
    b. moveTo
    c. playerIdentity()
    d. fields:
    e. GameObject currentPlatform
    f. GameObject target
    g. Sprite p1;
    h. Sprite p2;
10. SceneManager
    a. methods to load all scenes
11. ScoreCounter
    a. fields and methods handling score
12. ScoreGUI
    a. sets UI of win screen
13. StartMenuManager

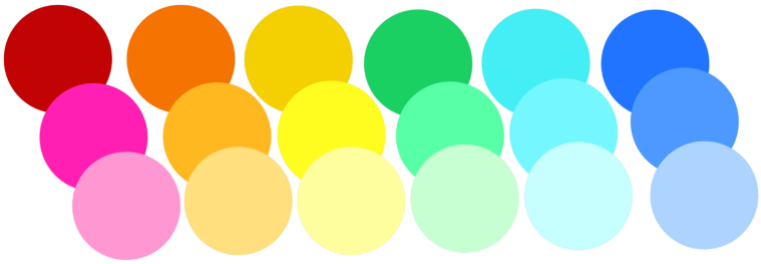
    a. Logic for Game mode selection
14. TimeCountdown
    a. handles timer
15. WinScreenSounds
    a. ordering of sounds for win screen

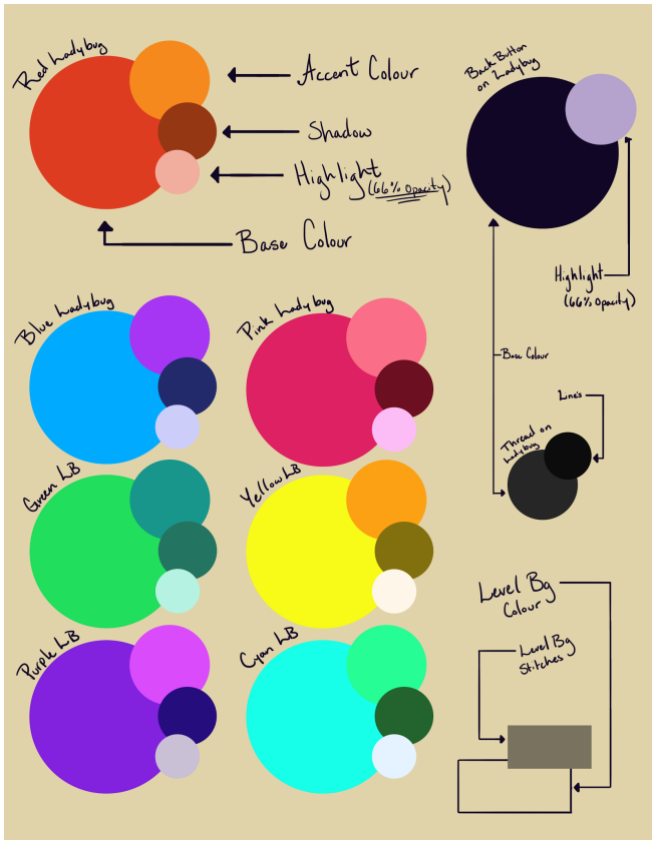
Graphics

Style Attributes

What kinds of colors will you be using? Do you have a limited palette to work with? A post-processed HSV map/image? Consistency is key for immersion.

The color palette will be bright and fun like most craft materials ranging from pastels to fluorescent. For the game to have a patched together feel we'll be bringing in several bright colors.





What kind of graphic style are you going for? Cartoony? Pixel-y? Cute? How, specifically? Solid, thick outlines with flat hues? Non-black outlines with limited

tints/shades? Emphasize smooth curvatures over sharp angles? Describe a set of general rules depicting your style here.

The graphic style is a cutesy hand crafted semi-realistic looking feel that's heavy in soft textures and patterns. Platforms will be patches of fabric and you will be casting platforms of thread/yarn. Everything needs to have a semi-realistic 3D textured feel (scanned/photographed textures and elements), everything needs to have depth.

Well-designed feedback, both good (e.g. leveling up) and bad (e.g. being hit), are great for teaching the player how to play through trial and error, instead of scripting a lengthy tutorial. What kind of visual feedback are you going to use to let the player know they're interacting with something? That they *can* interact with something?

In the tutorial, the player will learn the basics of the game as they take their turns playing by showing them that each turn they make choices that can benefit themselves and they can see their respective color visually taking over the level with every new thread and every new platform claimed. In the main game, players get visual cues such as the sewing pattern background showing the possible paths you can take to get to surrounding platforms, as well as highlights on the platforms you can travel to or affect when you pick up an item. When it is time to use an item, the mouse cursor changes so the player knows it's time to select what they want to use the item on. Along with that, there is a text box in the upper right corner that guides the player in how to use the items they collect.

Graphics Needed

1. Logo

2. Characters

    a. Ladybug

        i. Walking

        ii. climbing

iii. changing colors

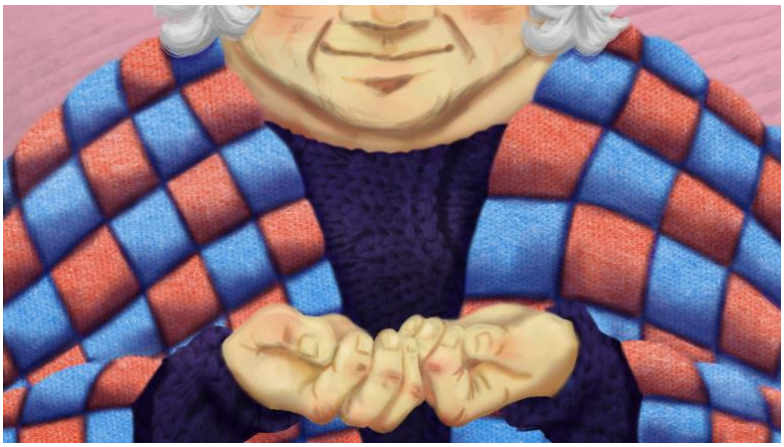
iv. collecting bonuses

v. victory animation

ladybug assets:

b. Grandma

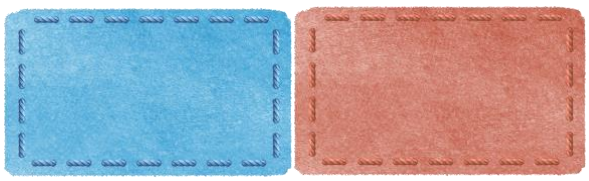
Grandma assets:



3. Platforms

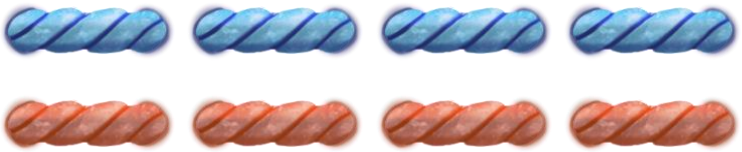
a. Fabric- Cotton Felt textured blend

Platform Assets:



4. Thread Paths

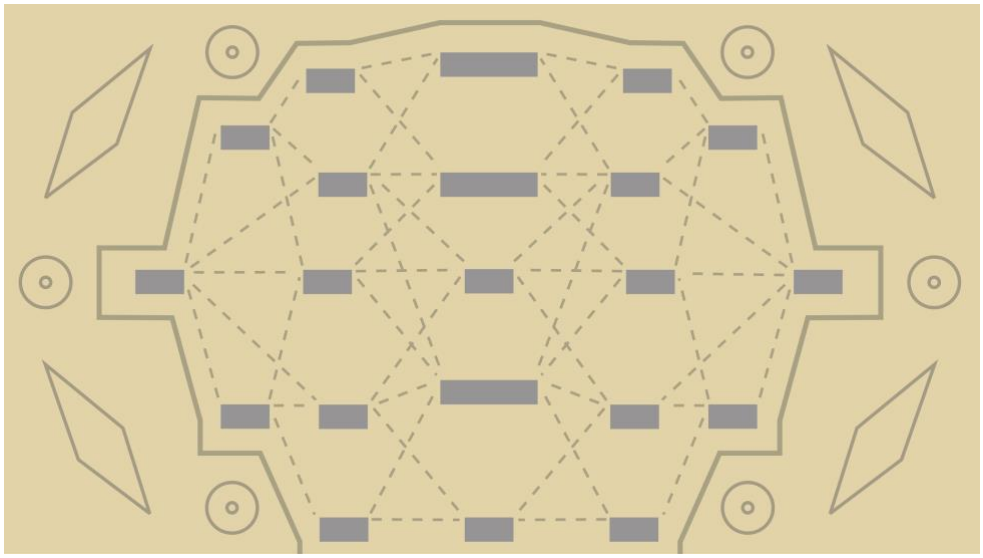
Thread Assets:



5. Ambient

    a. Sewing pattern BG

Main Level Background:



6. Menu

    a. Title

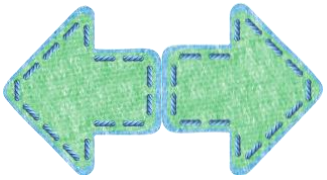
    b. Buttons

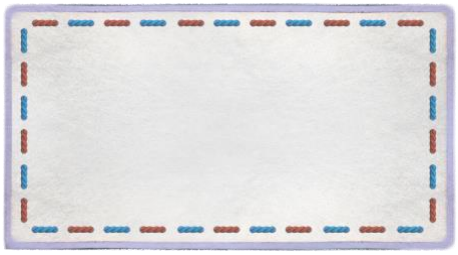
    c. Arrow Buttons

    d. Text

        i. Font: Ladybug Love

Menu Assets:





7. Other

    a. Items

item icons:

Item Cursors:

Cute/Homemade Theme

Style Attributes

Again, consistency is key. Define that consistency here. What kind of instruments do you want to use in your music? Any particular tempo, key? Influences, genre? Mood?

Because the theme is a crafty and cute style but the game is ultimately competitive the music should have an upbeat tone and be engaging enough to keep both players attention

passively when it is not their turn. Thematically instruments like flutes (high range woodwinds) and piano would be the best way to keep an interesting but diverse melody. Depending on what screen we are on the implementation of a nylon string guitar may also suit the theme. Music from party games where players take turns would be a great source of inspiration (ex. things like Mario Party's brightly themed maps, or Yoshi's Wooly World). Our greatest concern is keeping the players actively engaged, not making them aggressive towards the other as ultimately they are still working together. The mechanics are what will add tension to the game.

Stylistically, what kind of sound effects are you looking for? Do you want to exaggerate actions with lengthy, cartoony sounds (e.g. mario's jump), or use just enough to let the player know something happened (e.g. mega man's landing)? Going for realism? You can use the music style as a bit of a reference too.

Since this game has such a cutesy cartoony style the effects could be a bit unrealistic. Ultimately we're shooting for a fun player experience so we don't want too realistic of a sound design to take them out of that. Exaggerated sounds when collecting items and running into traps would both allow the player affected to not feel too horrible, but also give the perpetrator the satisfaction of having messed up the other player. So as an example sounds pertaining to characters running into traps should be balanced with the idea that they should sound unrealistic enough to not make the player who hit it feel to bad, but have a quick loud impact to give reward to the other player. These will have to match up with any animations that are made for these interactions.

Remember, auditory feedback should stand out from the music and other sound effects so the player hears it well. Volume, panning, and frequency/pitch are all important aspects to consider in both music *and* sounds - so plan accordingly!

Sounds

1. effects
    a. Plastic Tap Trot (Movement of Ladybug)
    b. Fabric Shift (while walking on it)
    c. String plucking noise (Movement of any kind onto a string)
2. Feedback
    a. Legend of Zelda-style heart pickup (Item pick up)
    b. Single note tone (For clicking buttons)
    c. Fabric Rustle (Gather Fabric)
    d. Crafty Creation tone, Magical Effect (Item use (depending on type))
    e. Bright Triumph (When hitting the win/exit space)
    f. Victory Tone (After Points are calculated and Winner declared)
    g. Stretching Thread

Music

1. Gameplay music: Simple melodic theme, moderate bpm.
2. Start screen music: Upbeat Energizing Track with high bpm, Mario style.
3. Victory Music
4. Instruction level music: Relaxing, moderate bpm

Schedule

Game Production Schedule

(Overall scheduling and planning for major game milestone)

1. Create a (very) rough playable prototype
    a. assets:
        i. ladybug block
        ii. platform block
        iii. thread block
    b. goals:
        i. get ladybug movement down
        ii. get thread placement down

2. add on to the prototype
    a. improve assets
        i. beginning dev art replaced with initial sprites
        ii. add a background
        iii. some basic animations
    b. implement more mechanics
        i. functional powerups
        ii. functional collectibles
        iii. functioning point system
        iv.
3. more player-friendly additions
    a. start screen
        i. start screen
        ii. controls page
        iii. credits page
4. Add Items
    a. button lock item
    b. platform lock item
    c. teleport item
5. Add Sounds and Finalize assets
    a. final polished assets
    b. final background music
    c. items are fully polished
    d. finish final debugging

Week 13 Schedule

(Weekly schedule to break down each person's job and completion time for each task)

Dev Name	***Task***	***Timeframe***	***Completion date***
Chen Shen	Change player turn to end on arrival and immediately activate the item	3 days	11/30/2017
Eddie Qu	Bugfix minimap/camera changes	3 days	11/30/2017
Yi Shao	Bugfix highlighting of item targets with Jiakai	3 days	11/30/2017
Jiakai Chen	Programmatically enable and disable the background lines, add the platform flashing	3 days	11/30/2017

	mechanic to item use with Yi		
Oliver Zhang	Playtesting	3 days	11/30/2017
Diego Villafuerte	Bugfix	3 days	11/30/2017
Jason Zhan	Finish bugfixing different game modes and turn switching with Chen	3 days	11/30/2017
Kylie Duan	Bugfix tutorial	3 days	11/30/2017
Artist Name	***Task***	***Timeframe***	***Completion date***
Sian Phillips	Sound Design	1 Week	12/5/2017
Bailey Mazur	Item Polish	1 Week	12/5/2017
Pamela Pizarro-Ruiz	Sound Design	1 Week	12/5/2017
Spencer Everhart	Asset Polish	1 Week	12/5/2017
Vanessa Delsanter	UI Polish	1 Week	12/5/2017
Alex Sierputowski	UI Polish	1 Week	12/5/2017

Items:

Teleport(Eddie): The teleport item enables player to jump to any platforms other than the current platform in one turn. In order to avoid thread deadlock, the player mechanism has been modified, currently the player can just stay at the platform for a turn if there's no way to go to another platform. The basic logic for the teleport is shown as follows:

1. The player A move to a platform with the teleport item. A gets the item.
2. Switch turn to player B. Player B use thread to connect to another platform.
3. now it's A's turn again. A instruction will indicate that A can choose any platforms on the map.
4. The player choose a platform and teleport to it.
5. After teleport, A cannot jump to another platform using the thread. It's B's turn now.

Therefore, the teleport gives player a power to jump to any platforms but the player lose the power to jump to another platform. Our team uses this mechanism to help reduce the chance of deadlock (If a player can move twice in a turn, the possibility of connecting a platform with all this player's threads will be increased).

Platform Lock(Chen): The teleport item enables player to lock one of the platforms for the rest of the game. In this way, his or her opponent will not be able to take that platform for the rest of the game. The basic logic for the teleport is shown as follows:

1. Player A gets the Platform Lock item.
2. Player B takes turn and stitch to another platform.
3. Now is Player A's turn again. A instruction(Implementing) will indicate that A can choose any platforms on the map.
4. The player choose a platform and lock it until the end of this game.
5. After platform lock, Player B will not be able to stitch to the selected platform for the rest of the game. If the platform has been occupied by B, player B will also not be able to revisit that platform. In other words, as long as Player A visit that platform after locking it, that platform belongs to player A for the rest of the game.

Score Displayer (Jason Zhan): This part has been already implemented. However, since there are some different opinions from the CIA artists, this feature was removed after the midterm game test.

In the play test last week, we heard suggestions from multiple groups of testers, showing their need of score displayers to help them have clear views of their situation. Therefore, we discuss this issue with the artists in our group meeting, and we reached an agreement to bring this feature back. The new version of the score counter has been implemented in the executable game project.

Item spawn logic & algorithm (Jason Zhan): The logic of this algorithm is to spawn random power up items every 5 turns on a random platform. To avoid giving any side of player unfair advantage, we decide to spawn the item on the platforms which are three steps away from both players. This feature will be included in the game manager. Since the four items are not fully functioning at this point, the algorithm will not be attached to the gamemanager script for now.

Button Disable (Diego and Oliver): The player disables a button (for both players) for a set number of turns (currently 3). Issues - no moves makes you have to wait the length of the turn, a "pass" button is a serious game mechanic consideration, checking for available moves seems to be the best option.

Other features:

Minimap(Eddie): A minimap feature is added to our project. The minimap will show a thumbnail of the whole map with notations representing the platforms and players. It gives the player a whole picture of the gameplay so that the player can choose different strategy based on the current situation.
The minimap is designed to be shown with a scroll animation if the player click the icon at the corner.