# Overview for Stakeholders

## UNWelcome

The user feedback confirmed these features are working as intended:

1. As a player, I want the game to be complete and playable with no bugs.
   1. The game is complete, and playable with no show-stopping bugs.

The user feedback identified these particular features need iteration:

1. As a player, I want the game to be complete and playable with no.
   1. There are some minor bugs - especially in the tutorials - which should be fixed before launching.

# Prioritized List of Issues and Action/Non-Action Decisions

## Sprint 3

## Alpha

All features implemented.

* We have identified that the UI does not always effectively communicate the information the player needs.
  + Force all UI elements to draw over the gameplay elements. Some UI elements were drawn underneath gameplay elements which cause confusion for the player.
  + We are going to make it more clear where the demon is targeting by having the rotation indicators be more clear to the player and less cluttered on the screen.
* We have identified that the affordance for some demons does not clearly communicate what each demon does.
  + Force all UI elements to draw over the gameplay elements.
* We have identified that the turret firing priority is causing a lot of confusion and frustration for the player.
  + We are going to cause turrets to fire only one at a time in a case where two turrets could fire. This will remove the player’s frustration with two turrets firing but only one effect occurring.
* We have identified that the neighbor’s movement speed is confusing to players and is information that they want to know.
  + We are going to make the conveyance for the neighbor’s movement range more clear by using a dotted line, or footstep shapes, or something similar instead of chevrons.

## Sprint 4

## Beta

Definition:

* First version that is a believable shipping candidate
* No known show stopper issues remain

Main Campus Testing:

* We have identified that many users have had trouble understanding our tutorials
  + We have added a third pseudo-tutorial level to avoid overwhelming users with information in the second tutorial
  + We have added more graphics to the tutorial to make it clearer to what users should be doing.
* We have identified that there is a spike in difficulty after the tutorials which deters users
  + We have added a third pseudo-tutorial level to ease players into having the freedom to place turrets wherever they want, and prevent a large spike in difficulty.
* We have identified that users do not understand the ranges of the demons
  + We have added a toggle to the side panel that will allow users to toggle all indicators on or off
  + We have added graphics to the tutorial to make the tap-and-hold functionality more apparent
  + We will not refine this functionality to the optimal level of readability due to time constraints
* We have identified that users had trouble understanding demon cooldowns
  + We have adjusted all demons to have the same cooldown
  + We will not redefine the demon’s cooldown system, due to time constraints
  + We will not completely remove the cooldown system, because it would force us to redefine the demon’s functionality

# Appendix A

## Kleenex Test Observational Data

|  |  |  |  |
| --- | --- | --- | --- |
| Time | * + Tester/ Game Action | Expressions | Tester Comments |
| 0 | Opened game | Interested, curious |  |
| 0 15 | Clicks level 4 |  | “Have to be curious, it will let me jump into the middle” |
| 45 | Volume down |  |  |
| 1 | Playing through tutorial 1 quietly, no comments yet. Clicking through text |  |  |
| 1 35 | Tried to swipe a demon in the tutorial. Clicking on it repeatedly. | Confused due to swipe | “Acts like its trying to tell me to swipe up” |
| 2 15 |  |  | “Ah its waiting for me to do that” |
| 2 50 | Able to rotate demon to the right. |  |  |
| 3 35 | Off the tutorial’s intended track, looks confused. Tapping a lot on stuff. | Confused |  |
| 3 50 |  | Neutral expression | “It didn’t expect me to play with it quite so much” |
| 4 05 | Restart button didn’t work |  | “I’m trying to see what all the buttons do” |
| 4 27 |  |  | “We’ll try and just follow the tutorial this time instead of experimenting” |
| 4 40 | Builds push demon as expected |  |  |
| 5 06 | Clicking through tutorial |  | “okay” |
| 5 20 |  | A little annoyed | “the other levels should be locked the first time they play the game” |
| 6 05 | Playing tutorial 2 |  | Playing tutorial 2 |
| 7 22 | Clicked next level, went to level select |  | “it’s interesting that it brings me back to this screen (level select) instead of the next level” |
| 7 50 |  |  | “It’s interesting that the buttons changed” (tutorial button art bugged) |
| 8 30 |  |  | “I wish I knew how far the enemies moved on each turn. Then I can decide where I want to build. I don’t know whether I can build it now or I can wait”” |
| 9 15 | Long pauses between turns. | Thinking | “Gonna experiment with something here. Looks like a yellow entrance area. Would not normally expect to be able to do that, but it’s yellow so I’m gonna try” |
| 9 50 | Building demons |  | “so we’re gonna have to have one more of something” |
| 10 40 |  |  | “now let’s see if I can put this here” |
| 11 40 | Experimenting with possibilities. Building springs. | Confused, pondering | “it says it throws neighbors over obstacles, but not walls. It’s unclear whether or not these are walls” |
| 12 45 |  |  | “looks like it counts as a wall, so this thing is useless” |
| 13 05 | Placing more turrets |  | “that there, that there, that there, etc.” |
| 13 50 | Build s a pull demon at the start of the level |  | “better affordance on pull demon if the arrow faced the right direction” (need to change the script to have the right words) “the heart is the worst affordance, the spring is good, and the push isn’t great either.” |
| 15 45 | Hits next turn a few times | Experimental | “this creates an interesting if I need to get them out of the house or… no they’ll keep moving that won’t work” |
| 16 15 |  |  | “this is fairly obvious…gonna have to get…I think the affordance problem for me on the push demons is the second hand that is pointing towards the demon itself. Having the fingers point away from the demon would have better affordance” |
| 17 05 | Builds pull demon into chimney |  | “Actually just because pull demons are cheaper, do that and that” |
| 18 05 | Builds push demons to push outside activation range | A little confused | “it would be nice if the text on the side showed more of their stats. Like their range, not just their cost.” |
| 18 45 |  |  | “we’ll see how that works, if the demon can pull through demons or what the ranges are” |
| 19 20 | Builds a push demon facing a window |  | “it doesn’t fire first, interesting. Gonna put this obvious one there” |
| 20 05 | Builds a push demon at end of level |  | “well now I know what the range of that is” |
| 20 55 | Pointing at demons he built | A little confused | “when I get a lot of these guys in close proximity, there’s a lot of little animated arrows. It starts to get confusing what applies to which guy” |
| 21 20 |  |  | “it can be figured out so I’m not sure…” |
| 21 40 |  |  | “that was interesting I was not expecting two of them to be pushed out of that door. I was expecting this to push them over there and then out the window” |
| 22 30 | Builds push and pull demons to understand the firing priority | Unsatisfied | “so I was expecting, I’m playing with the order of operations here, I was expecting this to occur a certain” (he’s talking about the demon priority. Need a clear indicator of how the priority works.) |
| 23 10 |  |  | “I was expecting that to happen, which is why I experimented and tried this” |
| 24 15 |  |  | Muttering to self can’t quite understand, something about obstacles |
| 24 35 | Builds spring demons both facing the same square. They both fire but only one action occurs. |  | “huh, yeah, so this is something that is behaving not like I’m expecting it to. When two demons could act, they both use their energy but only one effect happens” “What I was anticipating is that it would trigger the one that has precedence, and the second one would not use its cooldown. They both fired but only one action occurred is confusing me a bit” |
| 26 45 | Sells one side. Maybe pushed the wrong button? | Confused | “I thought I deleted two. I thought I clicked the sell button on both, I might’ve clicked the red x” |
| 27 10 |  | Content | “this guy that way and then, hm I’m curious, how stupid are the walkers?” |
| 27 27 |  |  | “so he does go around that” |
| 27 40 | Placed a demon on an alternate path |  | “so I can build them on the little alternate paths. That’s good.” |
| 28 10 | Tries to build a 4 cost demon with 4 health |  | “Here’s something that needs a dialogue box, I can’t build but it’s not telling me I don’t have enough energy” (need a feedback of some kind) “if this maybe flashed when it couldn’t be placed that could be enough” (Dev note: sound cue and dialogue box of some kind, flash the health as well) |
| 29 10 |  |  | “one of these two will be jumped no matter what. Of that’s a very low rate of return too, only got one of the 4 back.” |
| 29 40 |  |  | “huh, and again with a uh” |
| 30 30 | Builds a pull demon near a trapdoor |  | “depending on how the game works this will either be a very stupid move or a very clever one” |
| 30 55 |  |  | “what I want to know is if pulling enemies through the exit will remove the enemy or take them to the pull demon” |
| 31 20 |  |  | “I think it fired both those demons then didn’t it” |
| 31 50 |  |  | “ okay, do that…” |
| 32 50 | Pointing at things | Contemplating | “interesting color choice affordance, but I’m not complaining. Red is long time to fire, brown is medium and green is short. Brown is fine but not yellow, green gives me the impression that it will work now.” |
| 33 30 |  |  | “too costly to experiment to find out. Don’t to fiddle around with creating a system.” (He’s trying to find out if the green means it will fire.) “The pie shape tells me that there is a little bit of time left, even though it’s green.” |
| 34 40 | Person walking through demon | Experimenting | “this person wants to walk through the demon, which means I can’t…” |
| 35 |  |  | “so it has to deal with her, so I’m forced to either do this one or that one” |
| 35 33 |  | Confused | “I have 4 energy, so I try to place a spring demon, but I can’t. That looks like an outright bug.” (Dev note: player can’t put themselves at 0 energy cause that causes a loss) |
| 36 25 | Placing and selling springs |  | “what I really want to do here is continue building these little springs, to kick people off the path. Back ehre I want to throw them over. The problem is this, no that one points that way, but one thing that annoys me a bit, if a neighbor is on a spot that removes them, the demon can still activate on the enemy” (Dev note: he’s losing cooldowns to enemies that have been put onto the removal tile and a demon still fires even though the enemy is already ‘gone’) |
| 38 10 |  |  | “I think if he’s this far north he can act on the space in front of him. We’ll see what happens” |
| 38 35 |  |  | “he does not act on her there, so I need this to be here…but this one needs to go away…I may need to be lower” |
| 38 57 |  |  | “I’m basically discovering the rules through experimentation” |
| 39 15 |  | Neutral | “times like these I would like to be able to turn on a grid” (Dev Note: feature request) |
| 39 37 |  |  | “but now I need to deal with this, I’ve spent too much energy experimenting and not enough making them go away” |
| 40 |  |  | “hm, I was really expecting when I did that that there would be a bouncing white arrow pointing that way” |
| 40 30 |  |  | “put a spring there, but it’s not placing, I don’t know why” |
| 40 45 | Trying to place a 4 cost demon with 4 energy |  | “I’m assuming that that’s a bug” (0 energy = loss is not clear) |
| 41 15 |  |  | “I can’t use all my energy I have to keep one in reserve” (Dev note: health feedback might help this?) |
| 41 45 |  |  | “that’s an interesting little animation there” |
| 42 15 | He lost the level |  | “we’ll do it again with more efficiency and less experimentation” |
| 42 35 | Restarted the level |  | “daaah” (I dunno what happened here) |
| 42 40 | Restarted the level |  |  |
| 46 15 |  |  | “the music is a little repetitive, well more than a little” |
| 47 45 |  |  | “this square here being yellow confuses me a little, putting a pull demon here should remove them. Gonna do that and see what happens” |
| 48 45 | Pointing at buttons. Pull demon fired twice? (Bug? Also what?) |  | “I would really like a replay feature. The only way she could be there is if this pull demon fired twice and this push demon only fired once. Pull may have a shorter cycle time, but that’s not clear” |
| 50 20 |  |  | “don’t know if that worked so I’m just gonna delete this guy” |
| 50 50 | Builds push/pull combo |  | “set that down there…huh. And again with the two people firing on the same space” |
| 51 20 | Check indicator for pull demon. |  | “so what I’m squinting at right now is if there’s pink arrows underneath that guy there, the arrows probably need to be drawn on top of the creatures. I really want the range to be specified in this descriptive text.” |
| 52 45 |  |  | “pull this and then push him off that” |
| 53 |  |  | “…there…there” |
| 53 24 |  |  | “kinda want that over there but then this demon I don’t think reaches. May have to put it there” |
| 54 10 | Hit next turn, push demon did not push over obstacle |  | “uh oh that counts as an obstacle doesn’t it” |
| 55 |  |  | “just throws them over one spot. Spring has range… gonna go back to my experiment” |
| 55 30 |  |  | “so they do get pushed out when they are on this yellow square but it looked like he just left through a wall” |
| 56 |  | Pointing | “some very bad kerning or a space right here where they shouldn’t be” |
| 57 |  | Laughing | “there’s definitely two on top of them there, this one is on top of an obstacle” (Dev note: final level is very buggy, needs work also double window.) |
| 58 30 |  |  | “main thing that bothered me was the lack of concrete information and some of the affordances that (he) already mentioned” |
| 59 |  |  | “I think I understand how most of these things act, but there’s a couple things that don’t act the way I want them to. But one can argue that it’s not necessarily a problem. (The double turret problem) At the same time I almost am forced to place things so that two can act on one space. That’s one of the things I tried fiddling with in the first iteration of this one so that then it would try, I would be able to act on the same space. But it is still kind of annoying that they both fire instead of just one of them acting. When they both fire it’s also not what I would prefer.” |
| 1 0 0 |  |  | “the double effect doesn’t make sense. I think I figured out the ranges, although it was confusing for awhile.” |
| 1 02 20 |  |  | “I like the theme, I think it’s kind of, uh, a tower defense essentially game. I find the process of figuring out the towers more frustrating than fun. That experimentation process is more frustrating as well because the return on towers is so low. In some cases I simply just needed it gone. A lot of frustration could be more clear with more concrete information.” (Dev note: more in side panel) |
|  |  |  | “This ended at a point where I was really just figuring out how everything was working. That may be also because on some levels I was experimenting but I was pressured to complete the level. I still feel like I’m figuring the game out when it ended.” |
|  |  |  | “I like the rock with the dashes, looks like a rune almost, cause it fits more with the theme. But it could give the impression that it is a physical object instead of being UI” |
|  |  |  | “A little bit, it was a little confusing that I could pull through an obstacle but not push. The double turret problem was so overpowering that I didn’t notice the other problems. Seemed to me that the timers might be kind of inconsistent in the way they ran.” (Dev note: cooldown could be bugged, might be bad conveyance) |
|  |  |  | “Some levels I really wanted it, some I accidentally left a single space.” (Talking about having the grid as a feature) (A more gird like tile could help this) |
|  |  |  | “There was a UI element behind some stuff, that’s why I was squinting most of the time. There are one or two elements I would have used a zoom feature for, but most of the time I was squinting was trying to discern UI elements” |
|  |  |  | The game ends too quickly, the frame the neighbors foot touches the ground the game is over. The lose screen misses the point of the rest of the theme. The visitors turn mean when you lose the level. Instead they should be offering cake and hovering closely or something. The witch should be the only angry person on the screen. |
|  |  |  | Pick one voice for the text, the pronouns kind of switch back and forth between the two. |
|  |  |  | The tutorial is very brittle. |
|  |  |  | “There’s a little bit of cognitive dissonance with attract. Attract makes me think that they will walk toward me instead of pulling them.” |
|  |  |  | “there were a couple times that I wished I knew how far the neighbors are gonna move by walking” |
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# Appendix B

## Stakeholders Feedback Notes