Enemies

ALL enemy attacks should be well telegraphed

ALL dmg values and timing values should be available to edit in the editor.

When ANY enemy takes damage, the sprite should flash red for a frame or two. It should NOT interrupt any attack from the enemy.

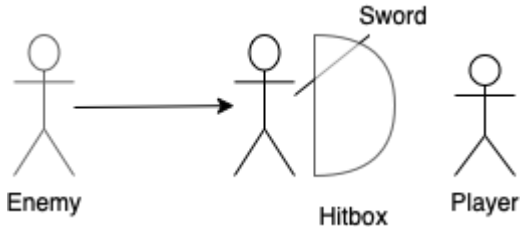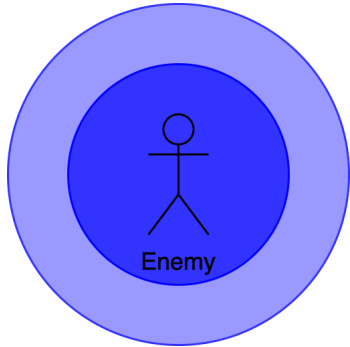Upon death enemies will dissolve into smoke.

Big Boy Enemy

THIS ENEMY HAS BEEN CUT FROM THE GAME

Stats

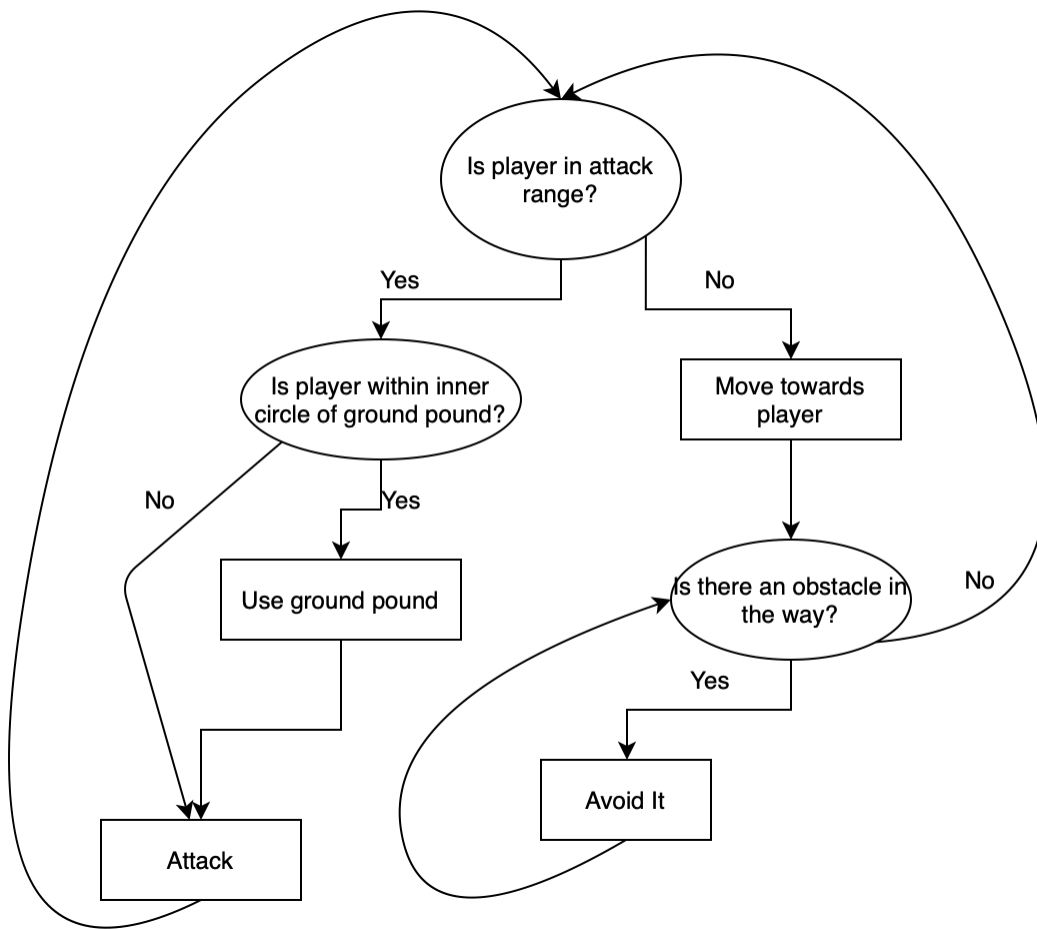| Health	Movement Speed
6	about 0.75x the players movement speed, adjustable in the editor

Attacks

- Just like every enemy, the Big Boy cannot attack and move at the same time.
  - This means that the enemy should stop moving for its attack windup
- Every attack should be well telegraphed.

Attack	dmg	description	Example
Sword Swipe	2	Enemy takes a few large steps towards the player and swings with its sword. The timing is important, think: step(stop) -> step and swing!	
Ground Pound	3	Enemy hits the ground and spikes rise up in a radius around the enemy. The spikes should spawn in two waves, one right after another. First the inner circle, then the outer circle.	

Behavior

- NOTE: Enemy should check for obstacle EVEN IF PLAYER IS IN ATTACK RANGE!

Is player in attack range?

Yes

Is player within inner circle of ground pound?

No

Yes

Use ground pound

No

Move towards player

Is there an obstacle in the way?

No

Yes

Avoid It
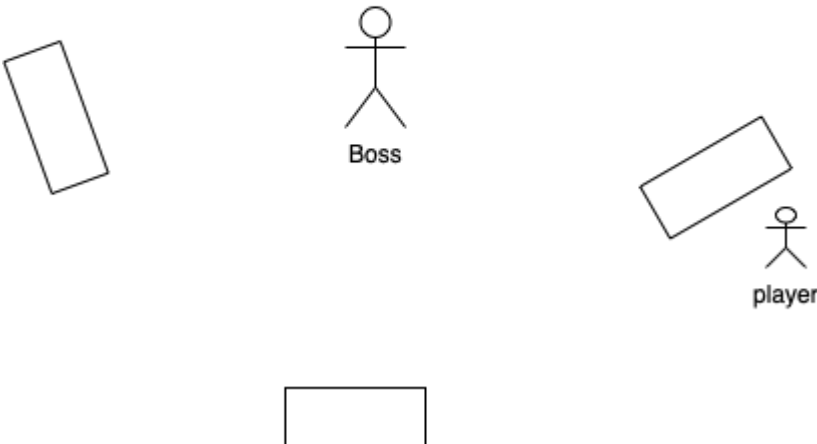
Attack

Usage

- This enemy is large and demands the players attention.
- This is the only regular enemy that should even be moderately challenging to take on 1 vs 1.
- Can be used with any other enemy type, the idea is to draw the players attention away from the weaker enemies. Make the player prioritize who to fight first.
- Could be pretty brutal in conjunction with the ranged enemy.

Boss #1

Stats

Health	IFrames
20	0.25s

Attacks

Attack	dmg	description	Timing	Example
Leap	2	The boss leaps up high into the air, stays up there for a few seconds and tries to land on the player. The player should be able to avoid this fairly easily.	Leap Windup: 0.25s Leap Duration: 1s	Fairly self-explanatory. Think the leaper from the case study. https://hyperlightdrifter.fandom.com/wiki/Leaper#Sources
Spin Attack	2	The boss does damage in a radius around itself	Windup: 1s Duration: 1.25s	 Imagine a spin attack from Zelda.
Rush attack	2	The boss rushes in a straight line at the player. Slows then stops when it nears a wall or cliff.	Windup: 0.75s Duration: Depends on how far the boss must rush.	Just imagine a bull rushing the player.
Screen Bomb	5	Boss creates cover(i.e debris dropping from the ceiling), then charges the attack for 10-20seconds (this gives the player the opportunity to attack or hide behind cover). When finished, the attack will deal 5dmg to the player if they aren't behind cover. The debris MAY OR MAY NOT disappear after the screen bomb is complete, though it could add too much clutter to the fight if it stayed.	Charging Time: 6s Debris Falling Time: Depends on the debris. Around 1s per debris.	Deals damage to the player if they aren't behind cover when the attack is done charging.

Homing Shot	2	Fires a slow projectile that follows the player slowly, never goes away, and deals 2dmg when it lands. If the projectile hits the target, boss will fire a new one at earliest opportunity for attack.	Windup: Fires instantly.	Imagine a Roomba chasing you around a room, its probably not going to catch you, but you should be careful.

Behavior
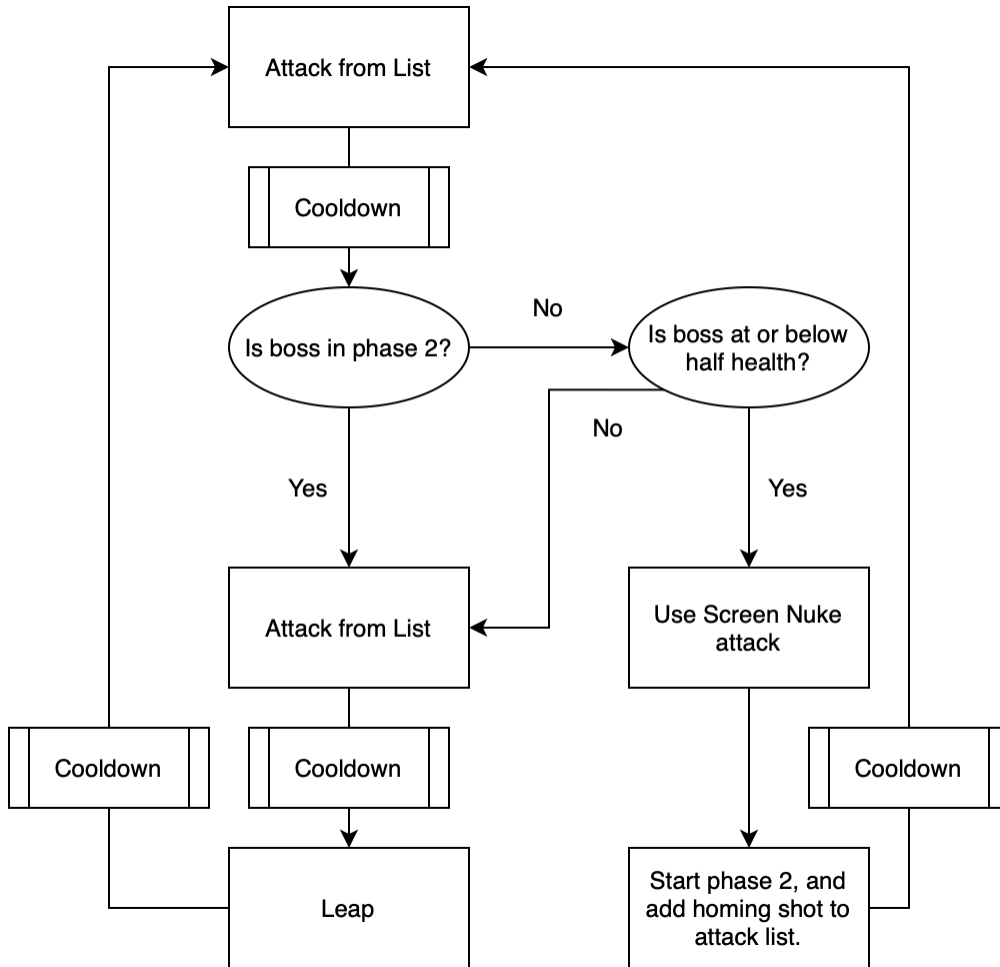
Cooldown is just a few seconds break to let the player attack, 1-2 seconds. Reduce cooldown by 25% during second phase,

though this should be changeable in editor so we can easily balance it.

Attack List(and conditionals):

1. Homing Shot(Phase 2 ONLY): If there is no homing shot following the player, and the player is outside of spin attack range, select homing shot from the attack list.
2. Spin Attack: If player is within range for the spin attack, select spin attack from the attack list.
3. Rush Attack: if player is outside range of spin attack, select rush attack from the attack list.

Explanation/Strategy

Once the boss has committed to charging any attack, they may NOT change attacks or cancel the wind up.

This boss will test the player on their ability to make quick decisions and move deliberately during a battle.

The screen bomb gives the player a chance to regain their shield if they've lost any during the fight, or attack the boss without fear of retaliation if they're really good and haven't taken any damage. The boss should be consistently, but not relentlessly applying pressure to the player.
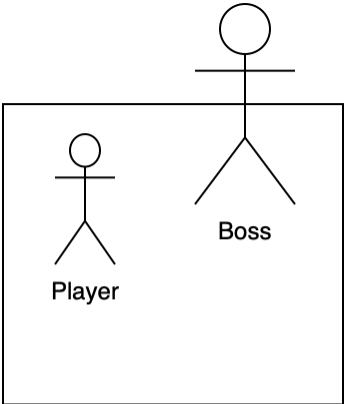
Player should be able to dodge all the bosses attacks if they stay patient, keep moving, and wait for an opening to strike.

Boss #2

Stats

Health	IFrames
20	0.25s

Arena
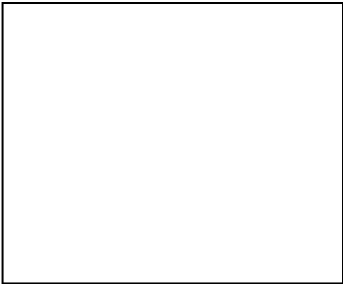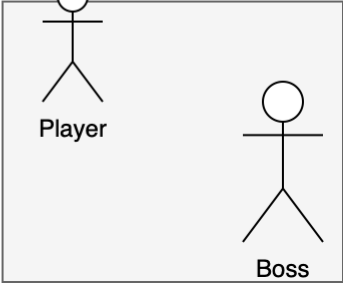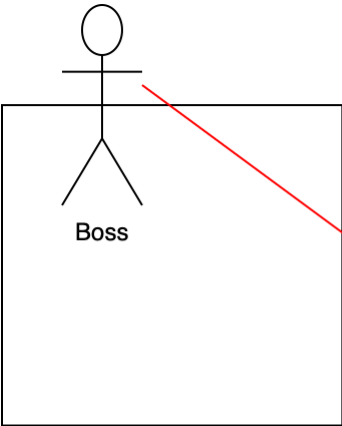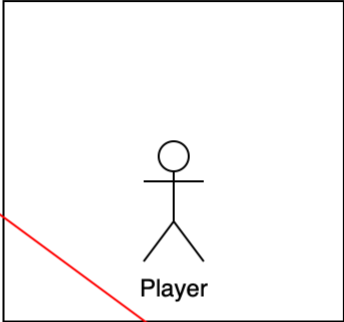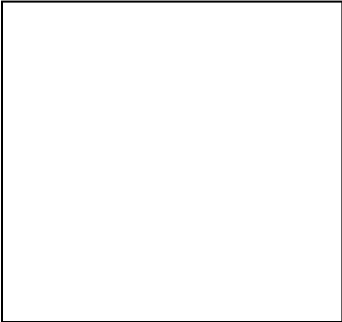
Diagonals should be too long to dash across, but the player should be able to dash between squares that are next to each other.

Player

Boss

Attacks

Attack	dmg	description	Timing	Example
Leap	2	The boss leaps up high into the air and stays up there for a few seconds, then lands on one of the other squares. IF the player somehow manages to get hit by this, they take 2 points of damage.	Leap Duration: 0.8s Leap Windup: 0.1s	Fairly self-explanatory. Think the leaper from the case study. https://hyperlightdrifter.fandom.com/wiki/Leaper#Sources

Shock Square	1	The square that the player is on and one other random square light up for a few seconds to warn the player, then if the player is on one of the lit up squares they take 2 points of damage.	Warning Time: 2s Duration: 1s	
Summon	N/a	Boss summons 1 thrusting enemy to each square. The enemies can spawn near the center of the square.	Windup: 0.1s	Fairly self-explaining.
Sniper Round	2	Fires a single incredibly fast sniper shot. The boss should aim for a second to give the player a second to realize the boss is going to fire. NOTE: When in the second phase of this fight, sniper round becomes shock sniper round. Shock sniper round is the same as a regular sniper round, except the square that the boss is on is shocked the same as it would be in a shocked squares attack. The warning for the square being shocked is the same as in shocked squares.	Sniper Shot Delay: 0.5 s This is the time between the boss aiming the shot and firing the projectile.	

Behavior

```
                                                                    ┌──────────────────┐
                                    ┌──────────────┐                │ Sniper round     │
                                    │ Use Base     │◄───────────────│ becomes shock    │
                              ┌────►│ Attack       │                │ sniper round.    │
                              │     └──────────────┘                └──────────────────┘
                              │            │
                              │     ┌──────────────┐
                              │     │  Cooldown    │
                              │     └──────────────┘
                              │            │
                              │            ▼
                              │     ╭──────────────╮
                              │    ╱  Has boss      ╲       No
                              │   │   started        │──────────┐
                              │   │   phase 2 yet?   │          │
                              │    ╲                ╱           │
                              │     ╰──────────────╯            ▼
                              │          │ Yes          ╭──────────────╮
                              │          │             ╱  Is boss at    ╲
                              │          ▼            │   or below       │
                              │    ╭──────────────╮   │   half health?   │
                              │   ╱  Is player on   ╲  ╲                ╱
                              │  │   same square     │◄─╰──────────────╯ No
                              │  │   as boss?        │      │
                              │   ╲                ╱        │ Yes
                              │    ╰──────────────╯         ▼
                              │     │ Yes    │ No    ┌──────────────┐
                              │     ▼        │       │ Boss         │
                        ┌──────────────┐     │       │ screeches     │
                        │  Leap away   │     ▼       │ loudly, start │
                        └──────────────┘  ╭──────────────╮ phase 2   │
                                         ╱  Have enemies   ╲──────────┘
                                        │   been summoned   │
                                        │   this phase yet? │
                                         ╲                ╱
                                          ╰──────────────╯
                                           │ Yes    │ No
                                           ▼        │
          ┌──────────┐  ┌──────────────┐            │
          │ Cooldown │◄─│ Use Secondary│            │
          └──────────┘  │ Attack       │            ▼
                        └──────────────┘     ┌──────────────┐
                                             │  Summon      │
                                             │  Enemies     │
                                             └──────────────┘
```
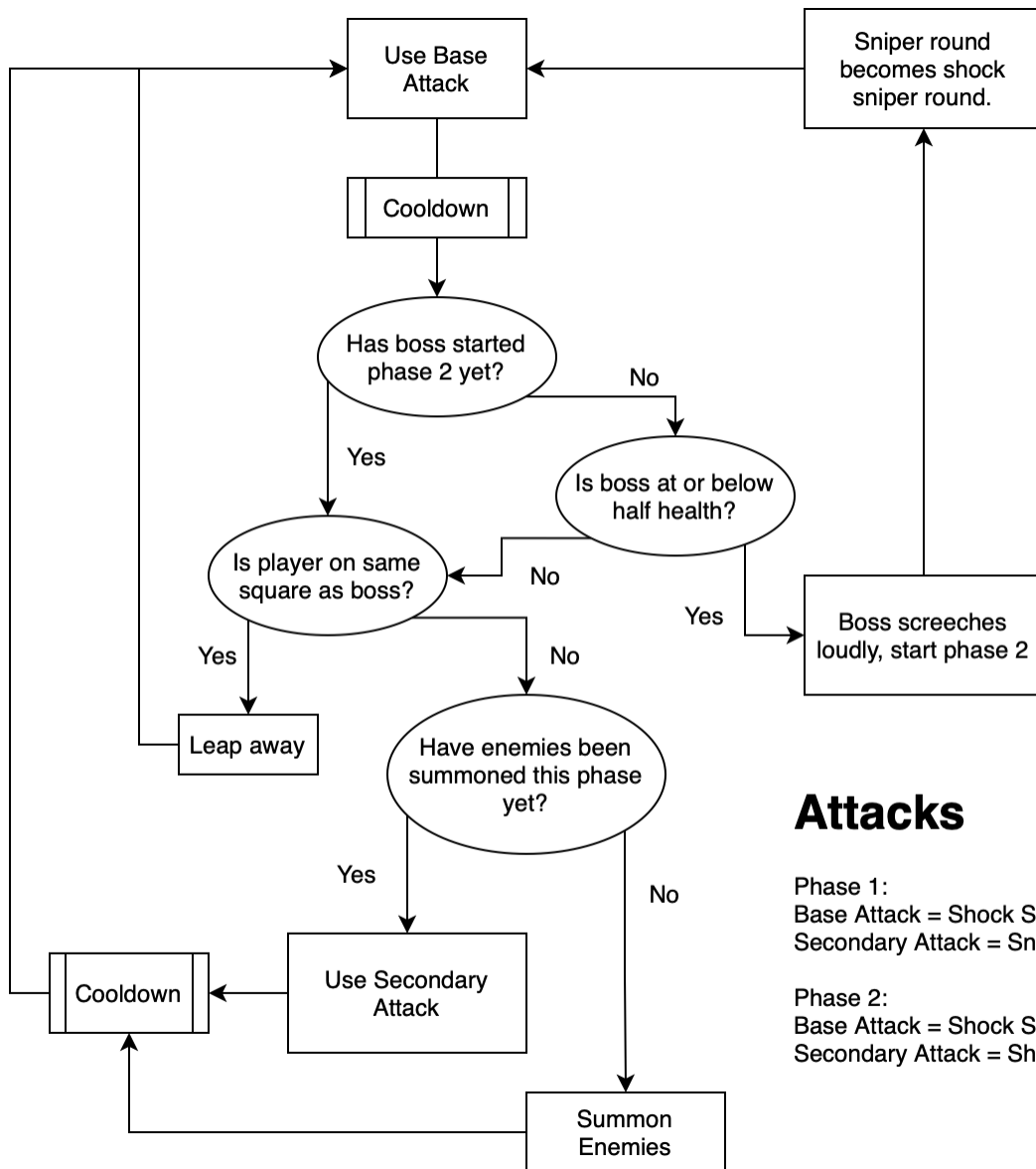
Attacks

Phase 1:
Base Attack = Shock Squares
Secondary Attack = Sniper round

Phase 2:
Base Attack = Shock Sniper Round
Secondary Attack = Shock Squares

Base attack and secondary attack change between phases, details are under the attacks header in the diagram.

Summon enemies can be used once per phase.

Explanation

Once the boss has committed to charging any attack, they may NOT change attacks or cancel the wind up.

This boss will test the players ability to think ahead before dashing, and juggle multiple enemies at once. The player should seek to find safe times to regain shield in the middle of battle. This will be especially difficult with the lack of cover that the arena provides.

Cone Spread Ranged Enemy

Stats

Damage	Health	Movement Speed
1 per projectile	3	Much slower than player

There should be a global variable called "Timing Offset", this variable is used to offset the timing of the enemies behavior so that the cone enemies are out of sync from each other.

Attack

- Enemy fires a spread of 3 projectiles.
- Projectiles move at medium speed, slow enough to dodge.
- Projectiles are medium sized.
- Attack Cooldown: 5s
- Attack Windup: 1s
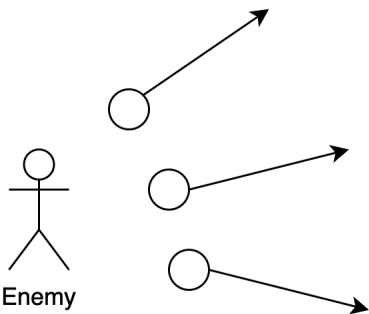
Enemy

Behavior

- Enemy will stand still, and fire towards the player at regular intervals.
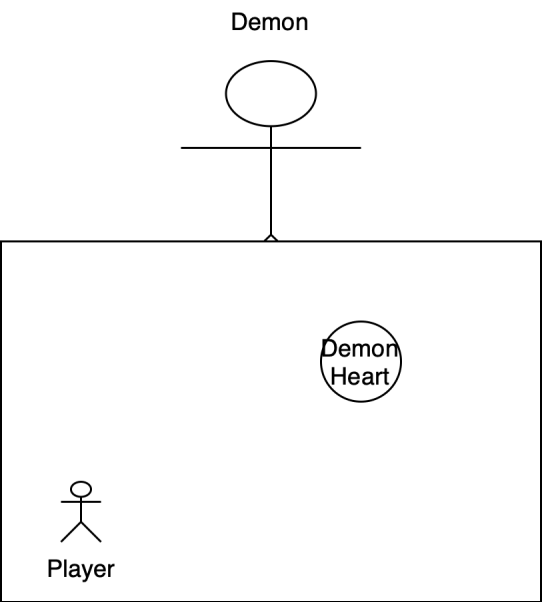
Usage

- Should be placed on the outskirts of combat to pressure the player and provide area control.

Final Boss

The final boss is the demon that lived inside of the players amulet.

The player will primarily focus on fighting the demon's heart, while the demon itself watches from the background, telegraphing some attacks and taunting the player, but never moving from the background. This has been done to keep the artwork needed for this boss low.

This is a diagram of the scale of the fight, it should also help art conceptualize the designs for the demon and its heart.
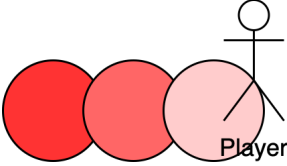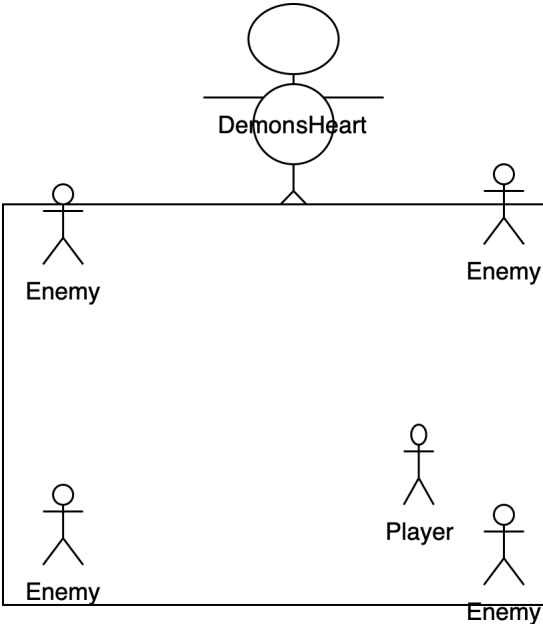

Stats

Health
30

Attacks

Attack	dmg	description	Example
Teleport	N/a	The boss blinks out of existence only to instantly blink into existence somewhere else. The location of the teleport is described in the behavior section. The implementation is the same as the Leap, but instead of leaping it teleports.	Fairly self-explanatory. For art maybe think instant transmission from Dragon Ball or something.
Phantom Spin Attack	2	The heart briefly transforms into a smokey, phantom version of Boss #1 and uses its spin attack, then transforms back. The transformation should only take around a quarter of a second, and the timing for the attack itself should be the same as the windup timing for boss #1. THE WINDUP TIMING IS DIFFERENT FROM THE COOLDOWN TIMING, this is a very important distinction.	Imagine a spin attack from Zelda.

Phantom Spear	2	The heart briefly transforms into a smokey, phantom version of Boss #2 and uses its sniper shot attack, then transforms back. The transformation should only take around a quarter of a second, and the timing for the attack itself should be the same as the windup timing for boss #2. THE WINDUP TIMING IS DIFFERENT FROM THE COOLDOWN TIMING, this is a very important distinction.	See boss #2 sniper shot for a more detailed diagram.
Demon Flames	2	Boss generates 3 circles where the player is standing, each offset by about 0.3 of a second. After a fixed time, around 1 second the circle will erupt in flame and damage the player if they're caught up in the flame. Note that this attack should be caused by the demon, not the heart, and as such the demon should telegraph this attack, perhaps by holding out their hand or something.	
Soul Harvest	5	The demons heart temporarily rejoins the demon and the boss summons 4 enemies, one to each corner of the room. Then the boss starts to suck the souls from the enemies, if the player does not defeat all of the enemies before the boss finishes(the boss should take around 8 seconds to finish), then the boss unleashes a devastating attack that kills the enemies that they spawned, and deals massive damage to the player. Then the heart separates from the boss again, and phase 2 starts.	

Behavior

Use Demon Flame

Note that if boss is in phase 2, the time until demon flame circles detonate is 0.75x less than it is in phase 1
The Phantom Spin attack range is the same range as the regular boss 1 spin attack.
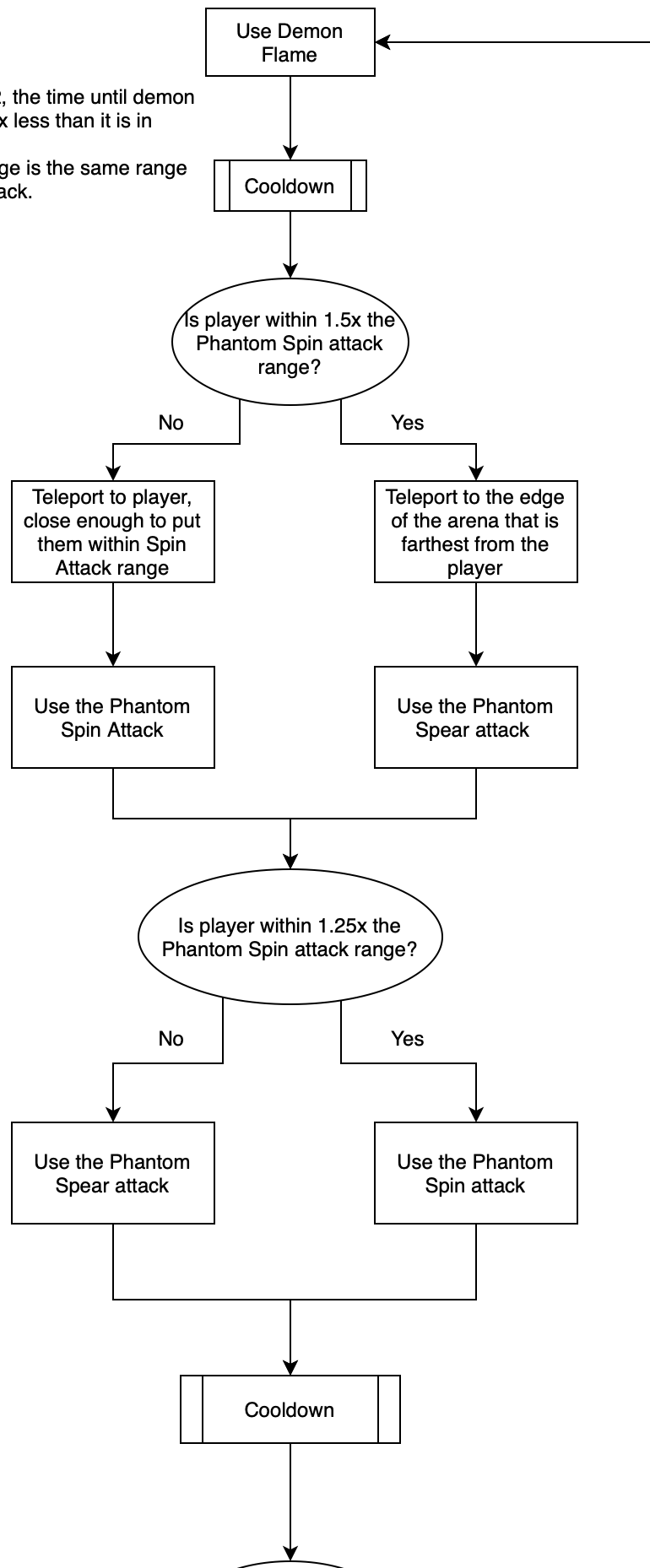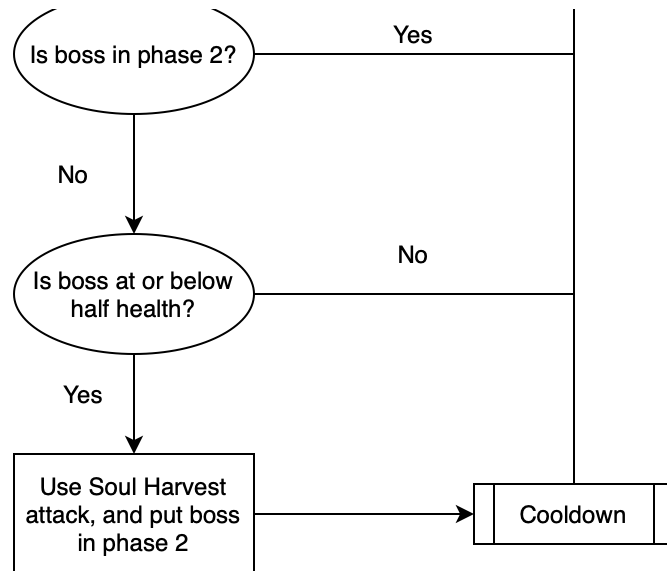
Cooldown

Is player within 1.5x the Phantom Spin attack range?

No

Yes

Teleport to player, close enough to put them within Spin Attack range

Teleport to the edge of the arena that is farthest from the player

Use the Phantom Spin Attack

Use the Phantom Spear attack

Is player within 1.25x the Phantom Spin attack range?

No

Yes

Use the Phantom Spear attack

Use the Phantom Spin attack

Cooldown

```
        ┌─────────────┐                              Yes
       (  Is boss in   )────────────────────────────────────┐
        ( phase 2?    )                                      │
         └──────┬──────┘                                     │
                │                                            │
               No                                            │
                │                                            │
                ▼                                            │
         ┌─────────────┐                   No                │
        ( Is boss at or )───────────────────────────────────┤
        ( below         )                                    │
        ( half health?  )                                    │
         └──────┬──────┘                                     │
                │                                            │
              Yes                                            │
                │                                            │
                ▼                                            ▼
     ┌──────────────────┐              ┌──────────────────────┐
     │ Use Soul Harvest │              │ ║      Cooldown     ║ │
     │ attack, and put  │─────────────▶│ ║                   ║ │
     │ boss in phase 2  │              └──────────────────────┘
     └──────────────────┘
```

Explanation/Strategy

Once the boss has committed to charging any attack, they may NOT change attacks or cancel the wind up.

This boss will test the player on their ability to make quick decisions and move deliberately during a battle.

This boss will be very aggressive in attacking the player, if the player wants to find time to regroup and regain shield, then they will have to avoid attacks long enough for it to regenerate.

This boss also utilizes attacks from previous bosses, this makes the whole game feel cumulative, and that everything was leading to this.

The fight should be intense and frantic, both the sound and visuals should reflect this.

The art for the heart should be simple, yet unnerving, the demon itself can have a more interesting design, and should periodically taunt the player.
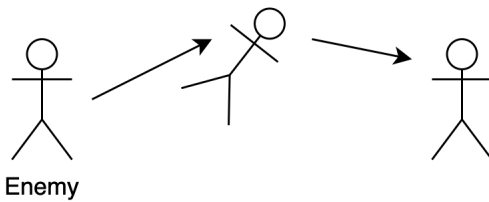
Lunging Melee Enemy

Stats

| Damage	Health	Movement Speed
1	1	Similar to player

Attack

- Enemy lunges towards the player.
- Very readable windup, gives the player some time to dodge.
- Attack Cooldown: 2s
- Attack Windup: 1s
- Enemy can be hit while lunging at the player.

Enemy

Hitbox is on top of the enemy.
Enemy throws itself at the Player

Behavior

- Enemy will relentlessly chase after player until they're in attack range, and then attacks.
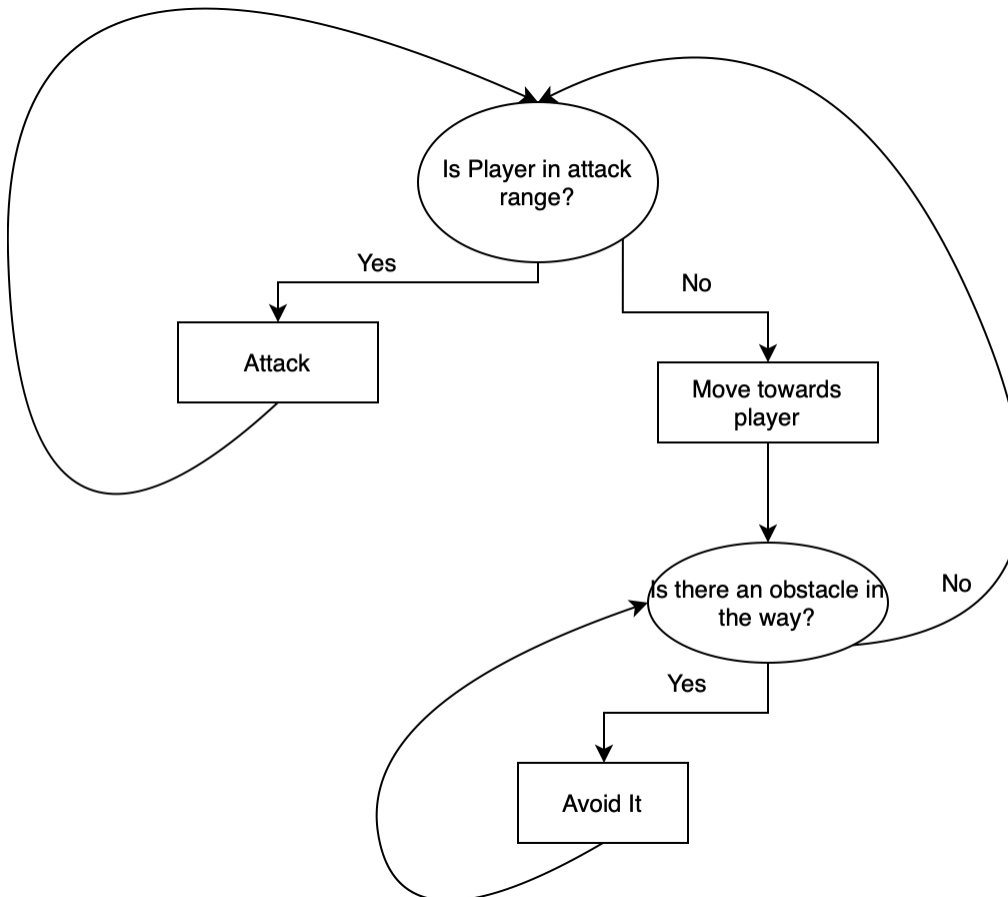
NOTE: Enemy should check for obstacle EVEN IF PLAYER IS IN ATTACK RANGE!

Usage

- This enemy should be thrown at the player in large groups(5-7).
- They serve to pressure the player into moving to prevent them from staying still for too long.
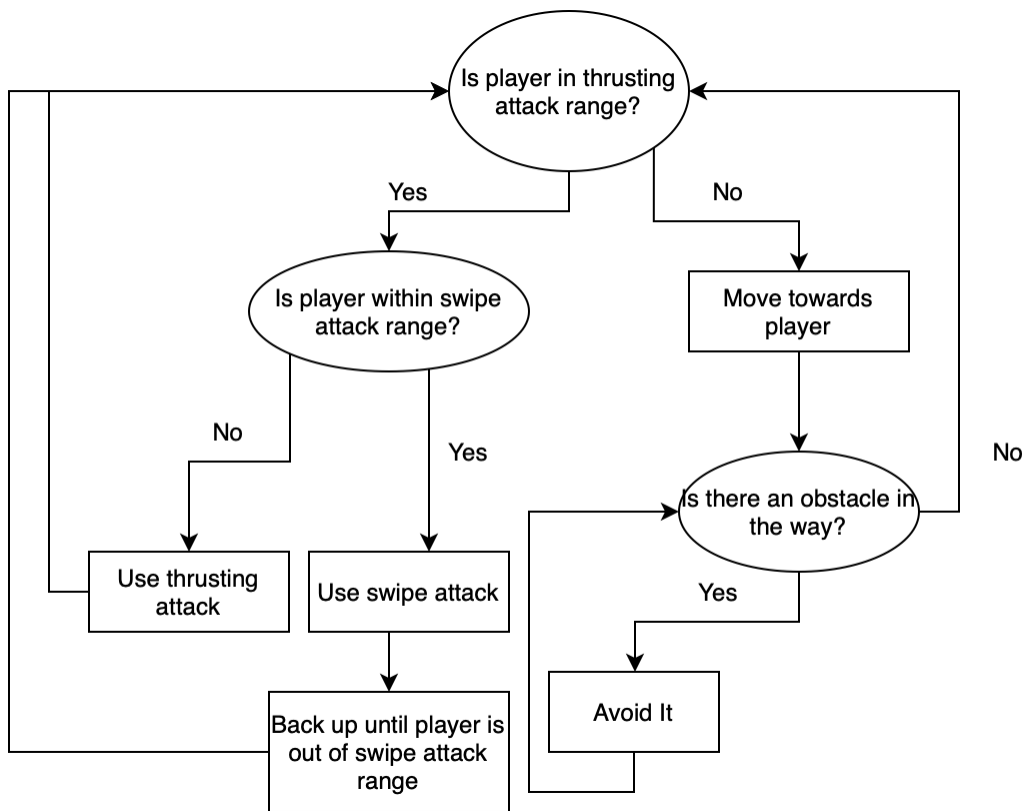
Thrusting Melee Enemy

Stats

Health	Movement Speed
3	About 0.65x player speed

Attacks

Attack	dmg	description	Example
Thrust	2	- Enemy thrusts in the direction it's facing. - Very readable windup, gives the player some time to dodge. - Attack Cooldown: 3s - Attack Windup: 1.5s	This is too close, if the player is in this box then the enemy should use a swipe attack instead. Tries to keep player in the shaded area of the hitbox. Hitbox. Enemy. Enemy takes a small step in the direction of the attack.
Swipe	2	- Enemy preforms a short, fast swipe at the player, probably with a sword or knife. - Attack Cooldown: 1.5s - Attack Windup: 0.75s	Sword. Enemy. Hitbox

Behavior

- NOTE: Enemy should check for obstacle EVEN IF PLAYER IS IN ATTACK RANGE!

Is player in thrusting attack range?

Yes

No

Is player within swipe attack range?

Move towards player

No

Yes

No

Is there an obstacle in the way?

Use thrusting attack

Use swipe attack

Yes

Back up until player is out of swipe attack range

Avoid It

Usage

- This is the main melee enemy, its thrusting attack forces the player to approach or shoot the enemy in order to attack.
- The swipe attack punishes the player for approaching the enemy too aggressively.
- They are easily defeated individually, but become dangerous in groups or when paired with other enemy types.