Basics

The pong bots have gone rogue! It's up to Ping Bot and Albert Acorn to stop them.

The game is basically ping-pong, but with added abilities for the player (Ping Bot + Albert Acorn) and the AI.

The "ball" is a bomb that explodes when out of the scanning area of a Dudonator, which covers a rectangular area. Albert can use a portable Dudonator and Ping can generate a force field that bounces back the bomb to their aggressors.

Gameplay document notes:
Whenever I refer to Albert and Ping Bot, I'm referring to the player.

Goal Play Time:

Around 30 minutes.

Gameplay:

When the ball bomb is outside of the range of a dudonator, it explodes. If the player is in range of the explosion, Game Over. If the enemy, that's a victory.

Three modes, move mode, Ping mode, Albert mode.

Move mode allows Albert to traverse the halls, even mid combat. Albert can move vertically, unless traversing corners. Can use mode this to advance or retreat.

Warning: To enter move mode, the player's dudonator must be disabled. Meaning, they are vulnerable to the enemy also turning off their dudonator when the bomb is in range of the player. Not good for them

Ping mode activates the force field used to bounce back the ball bomb. Ping bot can move horizontally.

Albert mode allows access to the plethora of gadgets he uses and obtains throughout the game. Can be used to turn the table of a pong match.

Story and Setting:

Basic, futuristic setting that’s high tech and has robots.

Notes

I need to think about how to design the levels to where it would take around an hour to beat without it getting repetitive.

Some thoughts I have:

Tools

- Abilities that Albert can deploy to win effectively

Enemies

- Different tactics, behaviors, and weaknesses to be considered
- And also obstacles

Some ideas - Many of these may not be in the final game, just throwing out some thoughts

- Regular pong bot
    - Basic, easily defeatable enemy
- Super pong bot
    - Regular pong bot, but with decreased pooling and reaction time
- Focus pong bot
    - Will mirror the x position of the ball
    - But cannot move faster than the ball's highest speed
    - Main strategy against it is to purposely speed up the ball by reflecting it on the edge of your paddle
- Basic wall
    - Reflects the ball. Bad for both ends
- Hostile wall
    - Only reflects the ball back to the player

Not story though. I don't want to pad via the story.

Does not have to be replayable

Action Items

Pong Bot AI

- Look up more on a good pong AI that's less janky
    - Worked a bit on this, but not much
    - I actually like the more fidgety movement. I'll make it a specific pong bot
- There are a few more enemies I loosely came up with, but add them in the main document, focus on the hallway traversal for now
- **Quick To-do though**
    - Pong bot does not have critical edges. Need to add them

Hallway Traversal

For now, remove the ball, until getting to step 3

Look into scene organization

Note from research -
*"If at all possible, one should design scenes to **have no dependencies**. That is, one should create scenes that keep everything they need within themselves." - Godot Docs "Scene Organization"*

Current research leads me to addressing something I've been avoiding, Singtons.
…It's time to learn how to use them

Link to current page

I already have a use case for one. The position of the ball needs to be known by the paddle bots at all times. So far, I'm using get_node to access it. This is bad practice.

- Find a way to organize scenes
- Use a Singleton to get the ball position instead

Allow the paddle to move horizontally via the SHIFT key

- As in SHIFT to allow movement one direction, and then SHIFT again to go back to side-to-side
    - Have a simple A vs P in the bottom right corner that indicates which mode you're in
- Place the enemy paddle further back in the hallway
- Have an enemy with a, aggro state, that will activate his ping pong defensive behavior
    - The enemy will first shoot the bomb ball

Further plans to consider

- Have the enemy turn off his Dudonator if the player is in range of an explosion and switches to Albert mode