

James Orr
IGME 420 - Level Design
10/30/22

P02C - Puzzle Level Final Build and Postmortem

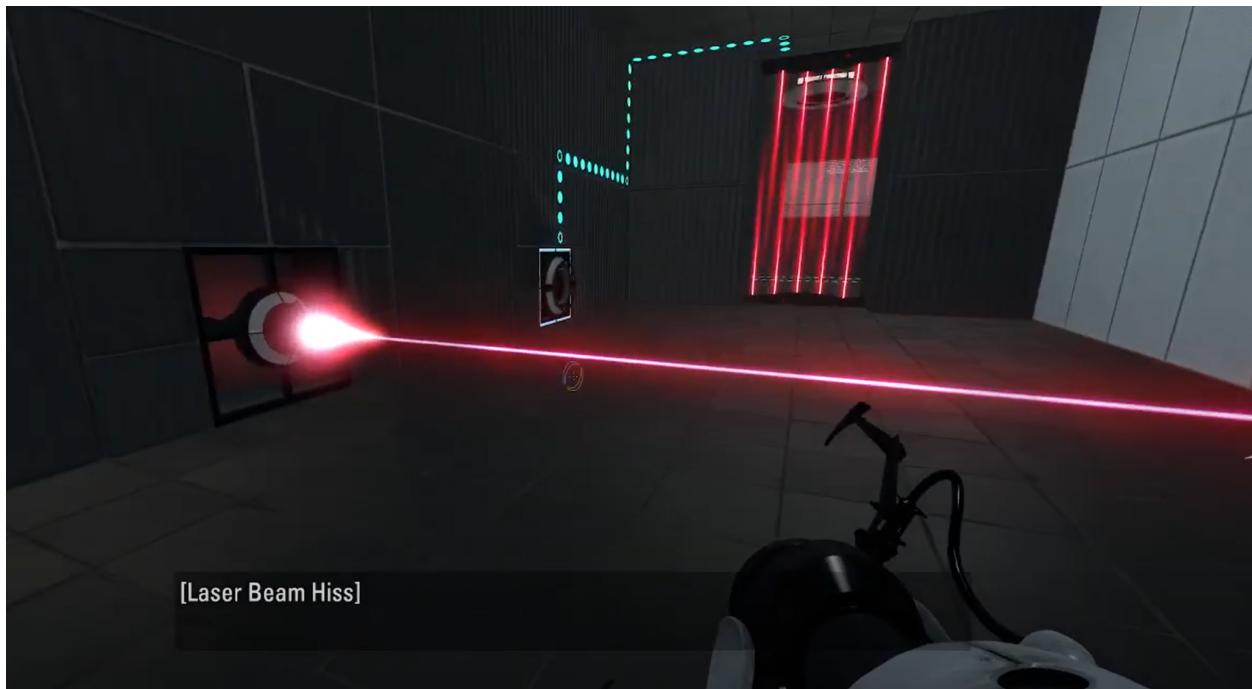
-Video Breakdown-

Video Link: <https://www.youtube.com/watch?v=ApZm74t4pDw>

Steam Link: <https://steamcommunity.com/sharedfiles/filedetails/?id=2882245312>

The video is of a short playthrough for the final build of a level created in Portal 2.

Timestamps:



0:07 - The player starts in the first room with a simple laser puzzle in order to bypass the door to continue. The puzzle utilizes the portal wall in order to get through.

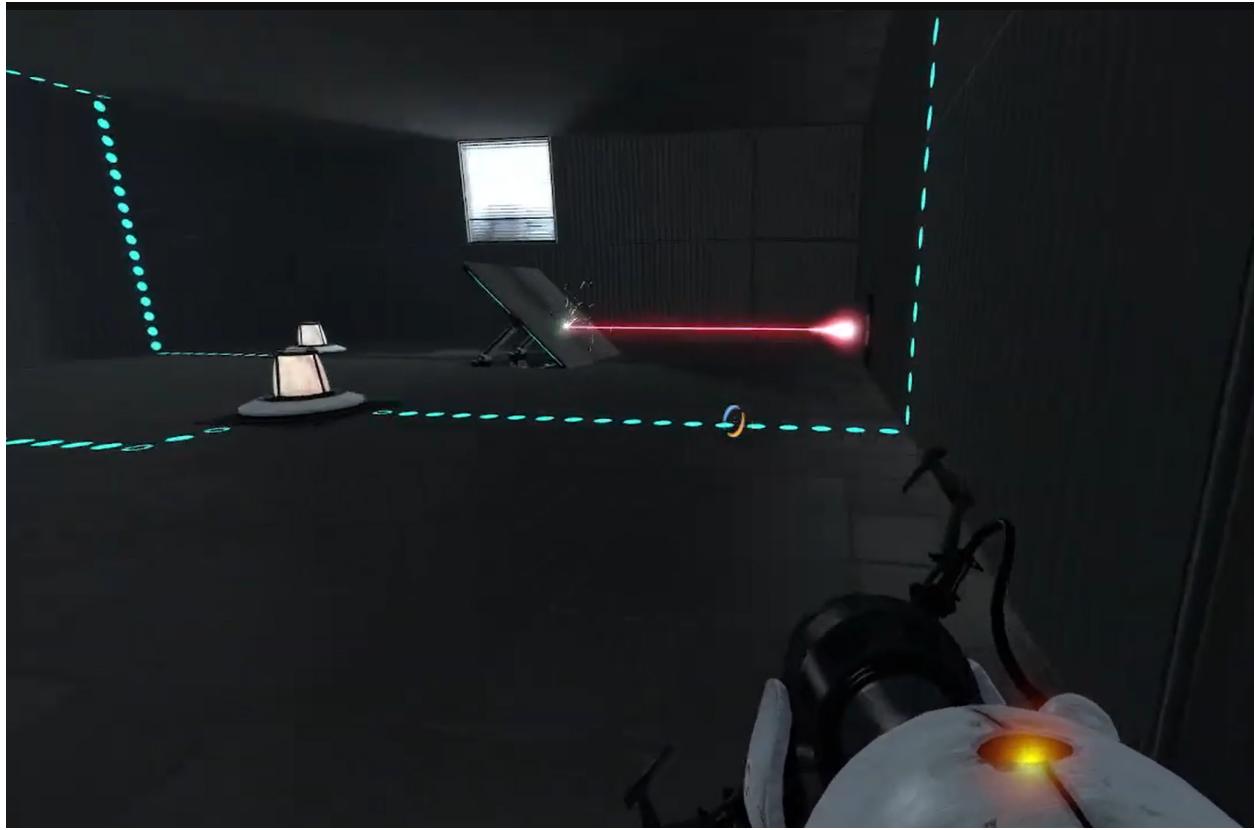
0:17 - In this room, there are no portal surfaces that can link the laser to the receiver, with the only option being the redirection cube to point the laser the right way and proceed. This is the introductory step for the player to understand how it works.



0:34 - With no way of getting the laser into the receiver to head forth, the player would take into account the new portable wall and head back so they can get the cube again to solve this puzzle.

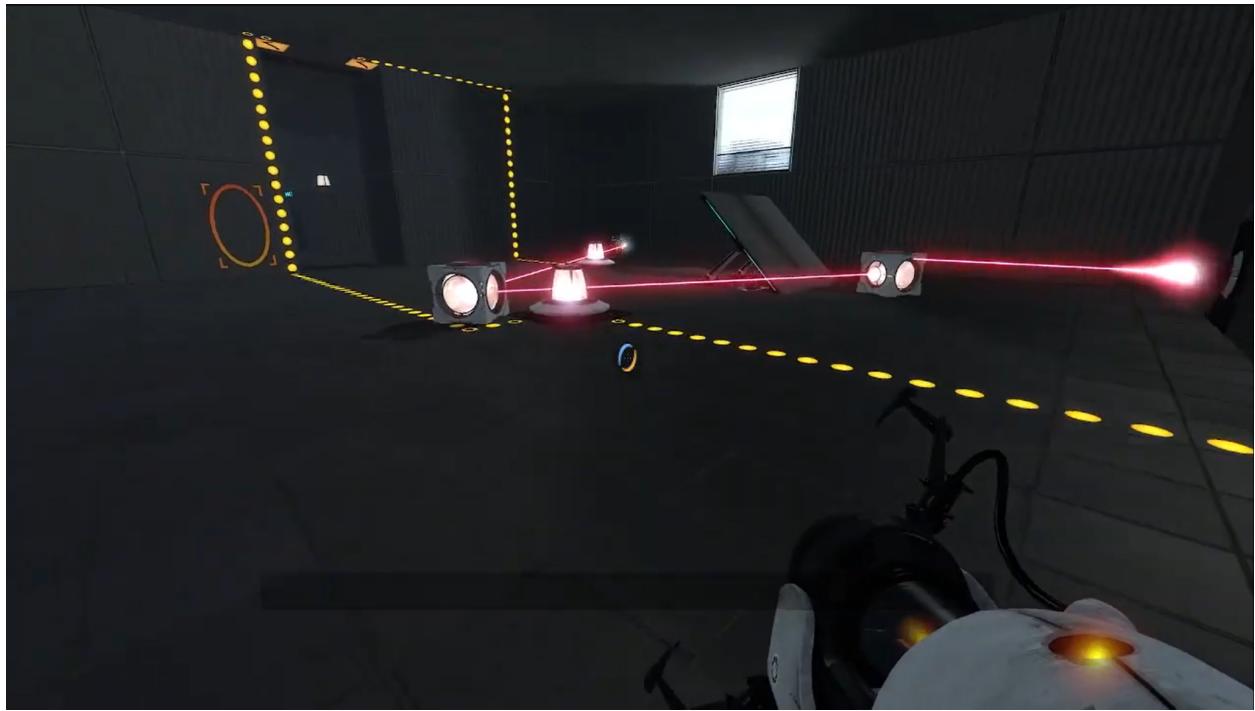
(The level is set up this way so the player would have to finish the first part so they can't immediately skip through to reach this part of the chamber.)

1:01 - This room introduces the laser relays angled in such a way that a single cube couldn't hit both of them to open the path forward.



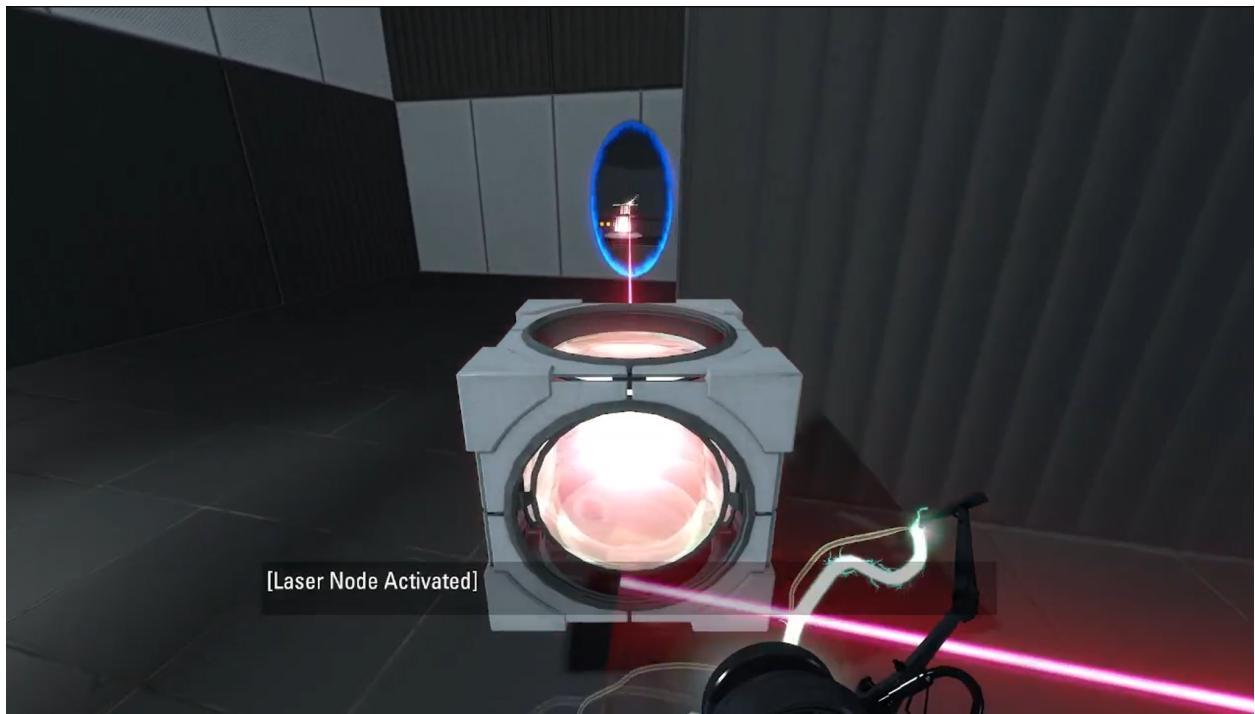
1:05 - The player would see the portable wall and go back to retrieve the cube yet again to attempt this puzzle.

1:18 - When activating the first relay, the player is introduced to the second cube which can point the laser towards the second relay and open the path forward. This is the reinforcement step to show off multiple locks the player has to get around (with the relays) and how they work in conjunction with multiple cubes.



1:30 - The final room shows two relays out of reach from the players position with no cubes, once again tasking the player with bringing the cubes into the room.

1:50 - In this part, the player would angle the first cube to send the laser to the other end of the room.



2:00 - At the other end of the room, the player would connect the portable surface at ground level with the elevated wall so they can be on the same level as the relays. This is where the twist comes in as the player would need to angle the shot through the portal as the relays aren't lined up directly in a straight line from where the portal would be.

-Postmortem-

My original intention for the level was to focus on the use of lasers and the redirection cube that can point lasers in other directions. My first version of the level was split into two small test chambers. The first test chamber was titled "Take Me With You" which would introduce the mechanics of the redirection cube and have the player travel between the rooms in order to take it and solve the other puzzles ahead. The second level was titled "Take Me Too" which would introduce an idea of angling the cube to change the way it points through portals into different receivers. It also had an idea from my original sketches to introduce a second cube that the player would use to angle around corners.

The following is a list of the pieces of feedback I received from the original levels:

The level is intuitive, but not too complex

I originally wanted to have three small test chambers that would be divided by the three steps for the assignment. "Take Me With You" was the introduction of the laser and cube dynamic that the player would use to get through. "Take Me Too" was an expansion on that first setup by adding the angling and the second cube. It was also unintentionally the twist level near the end with the two corners and relays out of reach, which were taken out and improved in the final portion of the current build. I expanded on this by altering the way the level makes use of other mechanics, while still keeping my original intentions for it in mind.

The general layout of the levels

One of the biggest changes was the layout of the levels. The notes I received let me know that the levels had some issues with their design, like the use of navigating rooms in the first on top of being simple and the complete workaround that skips the puzzle in the second chamber without needing the second cube. I decided that I would create one large chamber that would take elements from both to work around this issue. First, I used extending stairs instead of retracting walls to block off the future areas so it would be less cumbersome to get back through if they messed up. I also replaced any retracting walls used as doors in favor of the laser field as it felt more natural to aim back through a locked area than to climb out of an opening to get back. The relay was

introduced earlier so players know how it works before the final puzzle, and I compacted the level as best I could so there wasn't so much empty space.

In general, the feedback I got was positive for the idea I was proposing, yet critical of the areas I had to iron out to make it the best possible vision that it could be. When I went into fixing the level to comply with these critiques, I clearly saw where my peers were coming from as I repeatedly used ideas between rooms without it feeling very natural to play through, being rudimentary for the first level and having a confusing and easily bypassable layout for the second. I went into this having a better understanding of how some of the mechanics worked and how they could be better to use than my first interaction of the level, mainly the laser fields to replace retracting walls as it was easier to go back through if the player missed something. Both main challenges from the original two levels were kept and improved upon to make it more enjoyable to play through, which I feel was still a great way of providing those three steps of the assignment in an intuitive manner.