Punchdown: A VR Parkour Platformer

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Abstract—In Punchdown, players punch against things to launch themselves through levels.

Keywords—VR, Parkour, Platformer, Videogame, Speedrun, Punch, Fast, Accessible

Punchdown is a game that we have been developing for over a year and a half. It’s all about using your in-game fists to punch surfaces and launch yourself away from them. As players move throughout the level they build up Meter. Meter allows players to “Boost.” This is essentially a jetpack on the bottom of your fists that lets you jet in the direction you’re pointing.

The project is all about fun and free gameplay. Our big inspiration going into this project was the Super Monkey Ball series of games. They give players full control of their character within the physics system. We sought to create an engaging movement system with tons of room for player expression, within a VR environment.

After our initial prototype we knew we had something fun. The basic gameplay did not take long to implement, but it caused a lot of people nausea when they played it. A large portion of our development time was spent trying to curb this and make the game as accessible as possible.

This process included a lot of research into the area of simulation sickness. We learned about what causes it, what’s helpful in preventing it, and what to avoid. We’ve implemented a few options to help players who are feeling nauseous.

What we’ve found is that players who have taken the time to really engage with the game, and gain a full understanding of the mechanics fall in love with it. Our movement system has a low skill-floor and a high skill-ceiling. We want the game to be enjoyable to those without experience in VR or platforming games, but have enough depth to satiate the hardcore fans.

Fig. 2. One of the Flooded City levels. This is one of the first levels in the game and is meant to reinforce the basic mechanics.

This dynamic makes the game very good for expo demonstrations. Players can get a feel for the game and complete two levels within 5 minutes. We’ve brought the project to two faires so far (Maker’s faire 2018 & ROC Game Fest 2019). These were both successful and we feel the project would be a good fit at Frameless Symposium.