A VR Puzzle Game With Hand-Tracking Mechanics

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In this project, I designed and developed a Virtual Reality (VR) marble run game, with a particular focus on hand-tracking mechanics. My aim was to address the shortage of hand-tracking games in the VR gaming industry and investigate the potential of hand-tracking technology to create more immersive experiences for users. The development process was a combination of three essential modern technologies: 3D modeling, programming, and VR. The game was developed using the Unity engine, which is versatile and well-suited for creating immersive VR experiences. The Oculus Quest 2 headset was used, and the hand tracking feature was implemented using the Oculus development kit, which provides high precision and low latency tracking capabilities. The initial beta test revealed that the unique mechanics of the VR marble run prototype generated significant interest. However, playtests also showed that some mechanics occasionally interfered with each other and posed difficulty for some users. Therefore, several adjustments were necessary to optimize the game's mechanics and enhance the overall user experience. In the end, the feasibility of the concept was proven: this project has demonstrated the potential of hand-tracking technology to provide a new level of immersion, engagement, and interactivity for gamers, while also potentially enhancing their fine motor skills.

Awards Won:
Fourth Award of $500