Augmented reality laser tag

Daniel Altman
Science & Engineering
Manalapan High School
Englishtown, NJ
426daltman@frhsd.com

Daivik Jajoo
Science & Engineering
Manalapan High School
Englishtown, NJ
426djajoo@frhsd.com

Rishith Chandra Kilaru
Science & Engineering
Manalapan High School
Englishtown, NJ
426rkilaru@frhsd.com

Abstract

Laser tag is usually played in large pre-existing arenas that require heavy physical equipment. This can be costly, and inconvenient for casual players who do not want to invest heavily into it. As such, the goal of this project is to recreate laser tag in augmented reality (AR) to improve convenience of playing laser tag while demonstrating the capabilites of current mixed-reality systems. This project will leverage the Meta Quest 3 due to its color passthrough and room-scanning abilities to combine virtual and real elements.

Index Terms

augmented reality, AR, laser tag, Meta Quest 3, virtual environment, colocation, MetaSDK, Unity, OpenCV