

Mixed-reality Lasertag

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Lasertag is a multiplayer mixed reality game that turns any space into a laser tag arena. The game uses multiple Meta Quest 3 mixed reality headsets, each worn by a player, and a large empty space. Players play in teams and score points by hitting opponents with virtual lasers. Rounds would last around three minutes each. Players like the game and often describe it as "Star Wars but real."

The game itself is already mostly complete. I developed it here at Purdue (initially for a class project and then continued in my free time).

You can view footage of the game in action at <https://anagly.ph>

I already have access to a dozen Meta Quest 3 headsets through the Purdue Envision Center. They do not need to be purchased. All I need is cleaning supplies, batteries, auxiliary power for a couple of the headsets, some promotional materials, and a place to hold Lasertag matches.

These headsets are not designed to work outdoors with their 3D tracking and depth-sensing capabilities. A large indoor space with wifi like the Armory, a gymnasium in the Corec, or one of the ballrooms in the Union would be an ideal place to set this up.

Budget for BGR

Amount	Item	Price per	Total
2 x	Meta Quest battery head strap	\$130	\$260
2 x	Clorox Free & Clear Wipes pack	\$7	\$14
1 x	AA battery large pack	\$40	\$40
1 x	Horizontal printed promotional banner	\$100	\$100
1 x	Vertical printed promotional banner	\$150	\$150

Total: ~\$600

Other materials that I already have access to

- Up to 12 Meta Quest 3 headsets
- Folding table
- Laptop
- Tape for outlining play area
- USB-C chargers
- Pelican case for transporting headsets