

Rendering Bullets

EXECUTIVE SUMMARY

The Universal Serial Blaster (USB) is an affordable, immersive, and intuitive controller for the casual gamer.

Designed primarily for First Person Shooter (FPS) games but compatible even with Third Person Shooter games, the current prototype is modelled after and shaped like a gun: possessing buttons that perform 'reload', 'trigger' functions and a 'special function' button. Two foot pads – one to move the character and one to 'jump' – accompany the gun.

The gaming controller industry is plagued by expensive, single-platform controllers which are often distributed by the company that creates the consoles itself. Even Virtual Reality experiences are very expensive, and require excessive space and lots of hardware (headsets, controllers, scanners) to set up. The USB is a universal tool because of its cross-platform compatibility as it works with PC, Xbox, and PlayStation. It substitutes complex keypad/joystick commands for simplistic and intuitive ones. Pressing on a trigger to shoot is definitely more immersive than right-clicking a mouse while holding the Shift key.

The USB plays its role in the \$108.9 billion gaming industry and the multi-billion-dollar gaming controller industry by occupying a role in filling the increasing demand for affordable, immersive experiences in the modern world. Apart from Console giants Microsoft and Sony which sell their own controllers and distribute some third party controllers, Kotkin Enterprises' \$400 Delta Six is the closest gun controller to the USB. While production issues and an expensive price tag led to the Delta Six's failure, the USB certainly won't have those problems. The prototype cost \$25.50 to build with individually sourced parts, and on a mass production scale, could retail anywhere between \$40-\$80. The USB will more specifically draw the same band of support that the Delta Six did and occupy the vacuum created by its numerous unfulfilled orders.

The Team that worked on the USB, **Rendering Bullets**, currently has \$1000 in capital from the *Devils Invent: Fantasy and Fiction* event and the e-Seed Challenge, which will be invested in making a new prototype with improvements in hardware, software, and added features such as gyroscopic mechanisms for more realistic gameplay, mechanical reloading and recoil, wireless control, and LED strips that display player information like Ammunition, Health, or Points. With further investment, the USB could be brought onto the production line, and into the hands of millions of gamers across the world.

Rendering Bullets is made up of Rahulrajan Karthikeyan (Computer Science – Software Engineering & Digital Culture), Mohit Doshi (Computer Science), Alexander Vermillion (Electrical Engineering & Computer Science), and Tarun Anandanpillai (Computer Science & Digital Culture), who together won the *Devils Invent: Fantasy and Fiction* event by creating the USB.