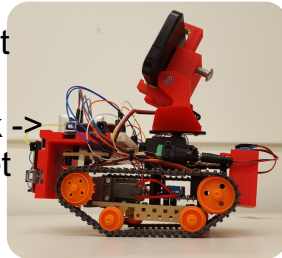


Live Virtual Reality Streaming

Introduction

- Live streaming video to a VR headset via the Internet to create an immersive experience for the user while also providing the ability to interact with the environment
- Key aspects
 - Camera controlled by head movement
 - Video displayed in stereoscopic 3D
 - Can move camera position using tank ->
 - System communicates via the Internet



New Idea

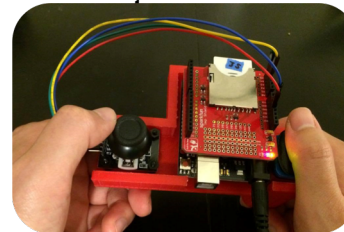
- Live streaming to a VR headset with minimal latency to allow for user input
 - Video captured using smartphone camera: requires minimal processing and data size is relatively small
 - Vehicle remote control and head-tracking control via the Internet

Research Process

- Three main components to research
 - Streaming Stereoscopic 3D Image to a VR Headset
 - Head-tracking
 - Vehicle Remote Control
- Project created using existing hardware/software
 - Skype – video streaming
 - Trinus VR – processing video feed to stereoscopic 3D
 - Internet, Arduino, Electric Imp - communication
- Specialized parts designed in CAD, 3D printed, and assembled

Results

- Successful implementation of video streaming, head-tracking, and remote-control



[Video Demo](#)

