Title: Remote VR System  
Students: ECE, ECE, ECE  
Topics: Mechanical Design, Microcontroller Coding, PCB Design, Motor Control, Control Theory, Communication Protocols, Wireless

Description
This is a real time heads-up for remote locations. A person at one site wearing a set of video goggles can connect to multiple sources. As they turn their head or other device the remote device pans and tilts to match. There is a possible improvement of stereo imaging as well.

Absolute Minimum Requirements
- Accurate control of remote camera (1 degree)
- Remote camera does not drift over time from head mount unit
- Camera control must be from simply moving head orientation
- Ability to interface to multiple cameras
- Minimum range of 100’ for control
- Low cost for final production
- Long term durable construction
- Aesthetically pleasing
- Remotes must be battery powered

Desired Features
- Both control and video to be wireless
- Range of 500’ minimum line of site
- Integrated video recording
- Stereo imaging ability
- Remotes have a 6 hour battery life