Computer Science
Senior Design Laboratory

University of Kansas KU

WifiLMR (Team 15)

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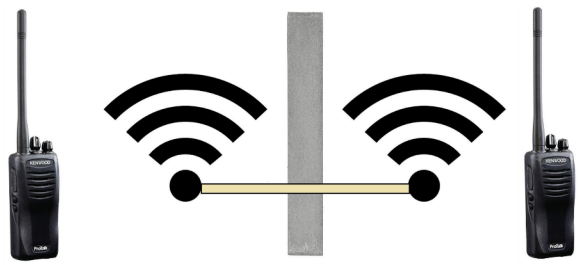
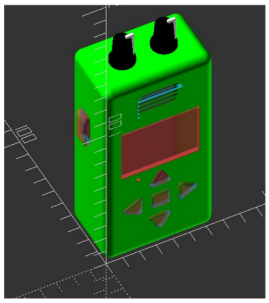
Description & Purpose

Our goal was to create a cost-effective high fidelity two-way radio for campus-scale deployments. The product would leverage pre-existing WiFi infrastructure to avoid the need for licensed spectrum and would improve indoor performance.



Design

Mechanical hardware consists of a 3D-printed housing for the electronic components. The height and width of housing are a slightly thicker iPhone5 with a thickness of about 1.25 inches. A single-piece design lends strength and ease of assembly, with removable back for servicing. Inside, most of the components will mount directly to the expansion board with the exception of the speaker, microphone, and top knobs.



Ethical & Intellectual Property Issues

Ethical Issues

- The product makes no guarantee of the reliability of mission critical situations that would require confidentiality of information.

Intellectual Property Issues

- There were no plans to commercialize our product so it will be declared open source. Software and hardware components, where possible, are MIT licensed or are under an equally permissive license wherever possible. Several parts use dependencies with GPL but are kept separate from software so contamination is avoided. Those portions are licensed with appropriate GPL derivative.

Employment Agreements

- Several members were employed in software engineering positions, however, due to the project being too far from respective markets, they were not interested in enforcing any intellectual property rights.