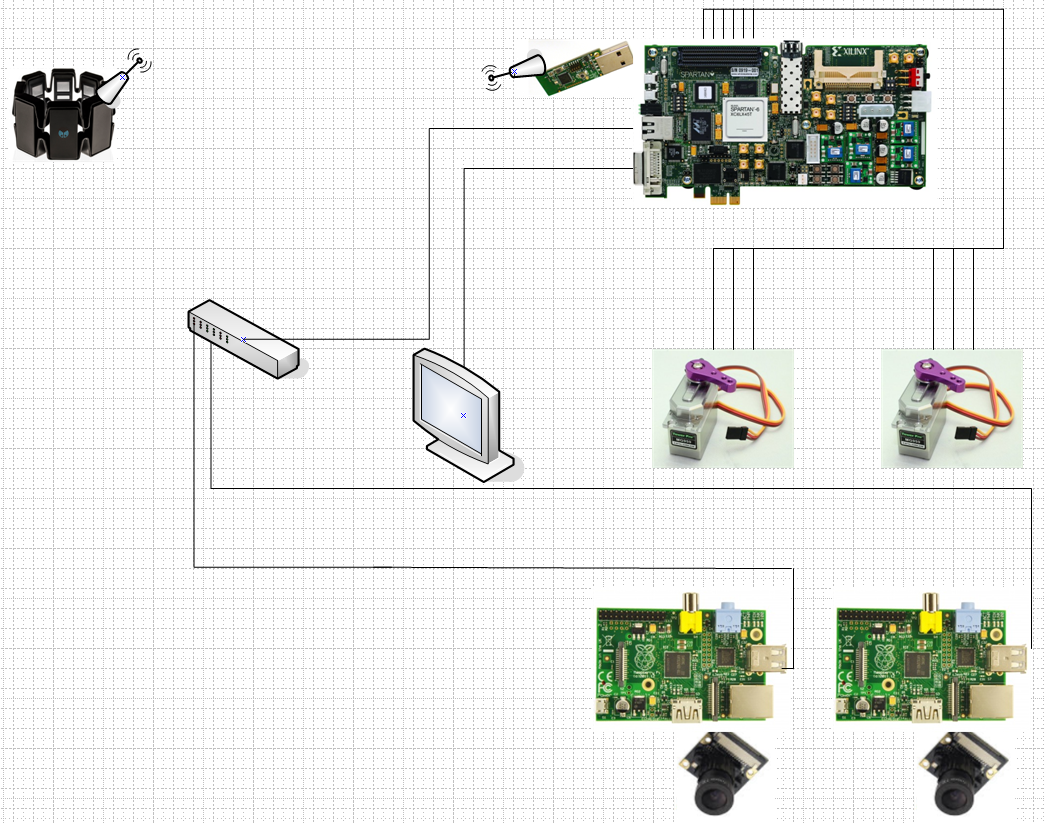
**Problem Statement**

Businesses small and large demand the absolute best in their security systems. In many cases, businesses do not have a dedicated security department. Often, security monitoring is a secondary responsibility of a worker. In this case, a hands-free device to control the camera feed and the position of each of the cameras would be the ideal solution. Workers would then be free to attend to other tasks while quickly and accurately controlling their security camera systems.

**Functional Description**

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**Figure 1: Rough Diagram of System**

A Myo Armband will be worn by a user, giving him/her hands-free control of a video camera system. The user will have control of pan, tilt, zoom, and camera selection. The system will utilize electromyographic (EMG) signals and inertial signals. The armband will send bluetooth signals to an FPGA board that will be responsible for processing the signals to control a video monitoring system.

A Raspberry Pi 3 board, with two servo motors will be used to control each camera system about two axes. An ethernet network will be setup to transmit information between the Raspberry Pi boards and the FPGA.