# Project Proposal

Chris Schlitt
Dave Piccolella
Jacob Varghese

Description:

      Our goal will be to compress a video stream from a live webcam in real-time, and transmit that video stream to another machine on the same local network. We would use external libraries for the image capture, processing and display operations, while implementing an algorithm for the compression process.

Requirements:
- Group 1:
    - Interfaces
        - Each member designs and interface, ensure the interfaces are compatible, followed by the implementation by each team member
    - Formal Design:
        - Sequence diagram for the overall process
- Group 2:
    - Data Structures:
        - Different structures used when capturing and compressing the data
    - Multithreading:
        - Different threads for processing the live video, displaying the live video, compressing the live video, displaying the compressed video
    - Advanced Java Topics:
        - Image displaying library
        - Webcam processing library

Work Breakdown:
- Chris
    - Webcam Processing and Data Transmission
- Dave
    - User Interface and Receiving Image Processing
- Jacob
    - Compression Algorithm

Timeline:
1. Each team member's interfaces completed by Monday (Dec 5)
2. Implementations completed by Friday (Dec 9)
3. Debugging and Finalization by Monday (Dec 12)

GitHub Repo:
https://github.com/chrisschlitt/LiveWebcamCompression