



Paraj Tyle



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18549 Team 7: Omniculars

# Testing & Quality Assurance



Vishal Jeet



Sashank Alla

# Status Update

- Project: Omnioculars
  - Magnified vision with action replay and slow motion
- Parts
  - Ordered additional parts
- Software
  - Experimenting with various action replay techniques
- Division of labor
  - Software: Sanchit & Vishal
  - Hardware: Paraj
  - Testing & QA: Sashank



# Experimentation Plan



- Initialization Test:
  - Test for delay on startup
    - Vary the time gap between recording and displaying the video
- Slow Motion Test:
  - Make sure that rate stays the same overtime
    - Slow motion for a stopwatch while comparing with the live stopwatch
- Concurrency Test:
  - Recording rate is not slowed down due to display
    - Compare FPS with and without display

# Experimentation Plan



- Fast Forwarding and Rewind Testing:
  - Test this particular implementation of slow motion for edge cases
    - Look for limits to rewinding and smooth recovery from fast forwarding too much
- Black Box Test:
  - Go to a Tartans game!

# Risks & Mitigation

## RISKS

- Lag
- ~~Video Quality~~
- Memory
- Battery: Weight and Duration

## MITIGATION

- Improve algorithm. Worst case: try for a faster board.
- ~~Better webcam. Budget left if required.~~
- Ordered 32GB. Can limit action replay duration.
- Currently plan to use AAs. Can order if required.

# Next Steps

- Include ordered parts
- Reduce time lag (maybe due to capture FPS)
- Include monocular as lens
- Integrating hardware and software

Thank you

**Questions?**