

# Project Proposal

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## The Problem

Regular videos are shots from a particular perspective, which has its limitations in certain applications. For example security cameras are often limited to where they are pointing to, which requires some way to move and track motion if they need to cover a wide area. The ability to capture the full area around the camera instead of a single point of view proves beneficial for this problem along with offering another form of entertainment in the ever expanding VR and AR platforms. This is where spherical videos (or commonly called 360° videos) come in, capturing video from multiple angles then syncing and stitching the footage together, allowing the viewer to see all areas around the camera.

## What Has Been Done

Multiple platforms have started accepting these spherical videos, including YouTube, Facebook, and Vimeo [1]-[3]. There are multiple tools available for syncing and stitching content together, including in Adobe's Creative Cloud tool suite [4].

## Approach

The approach for this project will be to examine the common spherical video formats, how they are viewed in an application, the metadata required for them to be displayed correctly, and the process of syncing and stitching them together. The main platform of focus will be YouTube due to its popularity and documentation available for uploading these videos.

## Deliverables

Below is a table with a rough outline of the project work plan. Regular blog updates will be posted to the project site along with the deliverables.

<b>2 Week Date Range</b>	<b>Work Planned</b>	<b>Deliverables</b>
10/09/23 - 10/22/23	Compile list of initial research resources, plan idea for project demo	Project proposal, Website
10/23/23 - 11/05/23	Continue research, make report outline, work on project update	N/A
11/06/23 - 11/19/23	Work on report draft, create outline of project demo	Project update

11/20/23 - 12/03/23	Have report draft finished, work on project demo	N/A
12/04/23 - 12/11/23	Wrap up report, finish project	Project demo, Project report

Project Website: [CSC461 Project Site](#)

## References

- [1] YouTube. "Virtual Reality - YouTube." YouTube.com. <https://www.youtube.com/@360/featured> (accessed Oct. 7, 2023).
- [2] Meta. "Facebook 360." Facebook.com. <https://www.facebook.com/Facebook360/> (accessed Oct. 7, 2023).
- [3] Vimeo Staff. "Vimeo 360: A home for immersive storytelling." Vimeo.com. <https://vimeo.com/blog/post/introducing-vimeo-360/> (accessed Oct. 7, 2023).
- [4] Adobe. "180 and 360/VR video editing software | Adobe Creative Cloud." Adobe.com. <https://www.adobe.com/ca/creativecloud/video/virtual-reality.html> (accessed Oct. 7, 2023).