Project Brief

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# Title: Open Source, Modular Stereoscopic Camera System for Virtual Reality (VR) Lifelogging and content creation.

## Problem:

Current system provided by big companies such as Meta, Snapchat, Insta360 and even Apple soon are either too propietary or too expensive for most people, especially catering to such niche audience (VR), causing the technology to stagnate, both hardware and software wise.

## Goals:

- Develop a open-source, low-cost and modular hardware system for vr content creation, focusing on lifelogging by making one that focuses on snap/clip on design on the sides of spectacles, hopefully spearheading the innovation in this scope, such as how SlimeVR did in regards for IMU based tracking for VR.

- Create a prototype lifelogging VR software to view the content (desktop PCVR) recorded, preferably with metadata auto tagging (scene/object detection) for efficient indexing and searching.

## Scope:

Hardware: Two small lightweight camera and microphone on the sides of spectacles, robust wiring to connect it to other circuitry needed (power management/battery, MCU/CPU/Motherboard)

Software: SBS video player and search software with sophisticated features (built in Godot)

Features:

1. 1080p 60fps SBS video capture
2. Immersive surround sound capture
3. Hot-swappable battery system

Demographic target: VR users, VR tech hobbyist, content creator, myself.