Camera Gimbal Problem Statement
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Problem Statement
People need better webcam options that are capable of face-tracking and gimbaling to improve the video conferencing and content recording experience.

Who is experiencing the problem?
Anybody who uses their computer's webcam experiences this problem. This product is particularly useful for those who work from home and use their camera for video conferencing on a regular basis.

What is the problem?
Most webcams that are currently on the market (including the cameras that are built into many laptops) are incapable of face-tracking at all, and the few that do have this feature are less than optimal for three main reasons. The current options are quite expensive, suffer from a limited range of motion on their gimbals that prevents them from turning more than about 90 degrees in each direction, and struggle to maintain tracking of the user if they briefly turn their back or have their face at an extreme angle. This design seeks to resolve all these problems.

Where does the problem present itself?
This problem presents itself in a wide variety of situations, with video conferencing being the most notable case. The problem is also apparent for content creators who would like their cameras to follow them around their room as they discuss different topics, as well as for anybody else who would like a hands-free recording of themselves without having to manually pan the camera as they move. The idea was originally inspired by a computer science professor wanting to record himself giving lectures in the classroom but being dissatisfied with the current face-tracking camera options on the market.

Why does it matter?
As the world's reliance on computers continues to increase, human interaction via webcam becomes increasingly important. Making these interactions easier and more organic through face tracking ensures that less of the "human element" is lost during virtual interaction and allows information to be conveyed more clearly and concisely.