SPYGLASS: Eye-controlled Camera Glasses

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As the world turns to wearable technology, multiple companies have tried their hands at smart glasses. However, no one has yet developed a product that strikes the balance between fashion, affordability, and features. The sleekest smart glasses have the least advanced technology, while the most advanced glasses are bulky, unattractive, and unfashionable. Additionally, most smart glasses cost hundreds to thousands of dollars, which puts them out of reach for the majority of the public and the people on the ground in the construction and grocery delivery industries. Spyglass, however, costs less than $30. Further, there is no comprehensive hands-free system yet on the market. Spyglass addresses the current market's limitations by allowing users to control a camera with their eyes. Utilizing a QTR-1A reflectance sensor, Spyglass detects specific eye gestures and reacts accordingly, allowing users to activate the on-board camera and automatically send an image via email without lifting a finger. Behind the scenes, reflectance sensors detect when users move their eyes, while an Arduino Mini processes the signal, which activates the ESP-32 camera. Spyglass can already take and send photos via email, and other features under development include capturing video and streaming to a remote location.

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