Infrared-Laser Computer Control

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A computer cursor is usually being controlled by using a keyboard and in most cases by a computer mouse in addition. For presentation purposes people like to use a wireless "presenter device" that allows highlighting areas on the screen with a laser pointer and also turn over pages. The infrared laser computer control should provide a comfortable way of wireless controlling a computer cursor - especially during presentations - by just using a laser beam and a camera. But it is almost impossible to identify an ordinary laser spot with a camera on a computer screen, even for the human eye it is hard to manage. However an infrared laser spot is easily visible on a screen, because common screens don't glow in this spectrum. This spot can be grabbed by an infrared-only sensitive camera. A real-time algorithm in a computer program precisely calculates the position of the laser spot on the screen independently of where the camera is located in the room in front of the screen. The calculated position allows visualizing the mouse cursor exactly where the laser beam hits the screen. This way you are able to comfortably control your computer using a special laser pointer from anywhere in the room instead of a computer mouse on a table. This technology provides a better and far more effective way of using laser pointers with all kinds of screens and monitors including video projection. Moreover it enables a beneficial way of using laser pointers during web conferences.

Awards Won:
Second Award of $2,000