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A PROJECT REPORT ON
“VIRTUAL MOUSE”

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ABSTRACT

As technology is advancing, the number of devices being used for a specific purpose is reducing. Implementing any hardware device in software will be of great advantage in this context, which also accounts for economy. One of them can be the mouse implemented in software.

In this paper, we propose a method to control cursor and perform mouse operations in real time using a camera. Creating a virtual human computer interaction device such as mouse or keyboard using a webcam and computer vision techniques serves as an alternative way for the touch screen technology. The approach followed here is mere software programming which reduces the use of hardware required. It provides the familiarity of interaction without actually the need of a real hardware mouse.

Here, we propose an alternative for hardware mouse using the principles of image processing, mainly the **color detection**. The objects are detected based on their colors and are tracked to perform corresponding mouse operations assigned.