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TITLE



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Abstract

[0070] An input device with three-dimensional, six-degrees-of-freedom data input for a computer having an array of tracking points defining a first axis and a second axis or plane is described. Light reflected from, or given off from the tracking points, is captured by an imaging device. From the two-dimensional images captured, three-dimensional data relating to the position and orientation of the input device may be obtained from the relative positions of the tracking points by a provided algorithm and lookup table. In the preferred embodiment of the invention, tracking points on the input device which is in the form of a wand with a cross piece and an imaging device allow computer users to input swinging movements into a virtual environment for gaming or three-dimensional applications.

[0071] FIG. 1 accompanies the abstract.