Action tracking system

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Using the National Television System Committee-standard (NTSC) camera for providing the feedback, the Field Programmable Gate Array (FPGA) can be used to depict a basic animation in the form of a Stick figure that would mimic a human performing real time actions. Our project can basically be divided into two high level tasks, namely- Visual perception and feedback and graphic generation on the screen.

We will begin by using the color markers which will be placed on the human, indicating the joints. We will try to analyze the proper colors and intensities of light at which they could be detected and then implement the algorithm to combine all the modules logically. The stick figure being displayed will not be an actual image of the person, but rather an intuitive indication of movements performed.

This project has a potential for great learning experience and also has a wide variety of applications in Gaming and animation industry and the Study of Dynamics of anything that can move.