

TRACKS BODY, EYE, OR HAND MOVEMENT



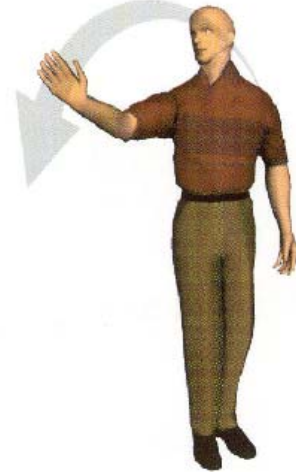
- ✓ Calculates position of the tracked body part at video frame rates (30 Hz or better)
- ✓ Tracks motion in an unstructured background
- ✓ Tracks without video targets or active beacons (alternative beacons are available)

RECOGNIZES AND DECODES GESTURES



- ✓ Records static and dynamic gestures
- ✓ Uses position and velocity data as input to recognition
- ✓ Identifies static and dynamic gestures
- ✓ Can automatically learn new motion gestures

INITIATES CONTROL ACTIONS ASSOCIATED WITH GESTURES



- ✓ Determines actions requested by identified gesture
- ✓ Interfaces with device (or computer process) to perform action
- ✓ Interfaces to emulate mouse, key hits, menu selection, etc. are available

Applications systems in use using Cybernet Gesture technology:

- UseYour Head – Tracks computer game player head movements. Movements are translated into game key commands to effect play or view point – It's like having an additional mouse or joystick controlled by your head.
- NaviGaze (NIH and NASA) – Tracks paraplegic's head and eye movements. Allows the profoundly disabled to control a standard PC computer by translating eye and head movement and blinks into mouse and keyboard actions.
- Gesture-Controlled Kiosk (NASA) – Control computer presentation applications on Kiosks by hand movement. Allows the information consumer to control the Kiosk display even when he/she cannot touch it directly.
- Gesture Controlled Control of Dismounted Soldier Training (Army) – Allows training and evaluation of the dismounted soldier/leader's ability to use standard Army hand signals. The soldier is operating within an immersive simulation environment. Simulated teammates behave and are controller through hand signals that the trainee performs (which are tracked, decoded and used to initiate actions of the simulated teammates).
- Gesture Controller PowerPoint – Provides control of PowerPoint presentations by simple hand gestures. Also includes presenter video recording and presentation playback for after presentation review.
- GestureStorm – Provides control of TV weather cast presentation material dynamically while on the air through hand gestures made by the weather presenter. Used by many US based Television stations today.



Other Point and Tracking Products by Cybernet

- EyeTrack – Tracks a user's eye movements and pupil size for research and evaluation purposes.
- FireFly – Tracks from one to 32 active tags placed on an object or a person's body for recording of motion for use in animations and biomechanics.
- I3M – Self-contained 1 inch cubed inertial/magnetic tracker that tracks movement in six degrees of freedom (X, Y, Z and pitch, roll, yaw). This unit is one of the most accurate inertial trackers currently available.

