

A Collection of 3D Vision Trackers for Touch-Free User Interface and Game Control

Control interactive displays and digital signs from a distance. Navigate “PrimeSense™-like” 3D game worlds. Interact with virtually any computer system without ever touching it. GestureTek, the inventor and multiple patent holder of video gesture control using 2D and 3D cameras, introduces GestTrack3D™, our patented, cutting-edge, 3D gesture control system for developers, OEMs and public display providers. GestTrack3D eliminates the need for touch-based accessories like a mouse, keyboard, handheld controller or touch screen when interacting with an electronic device. Working with nearly any Time of Flight camera to precisely measure the location of people’s hands or body parts, GestTrack3D’s robust tracking enables device control through a wide range of gestures and poses.

GestTrack3D is the perfect solution for accurate and reliable off-screen computer control in interactive environments such as boardrooms, classrooms, clean rooms, stores, museums, amusement parks, trade shows and rehabilitation centres.

The Science Behind the Software

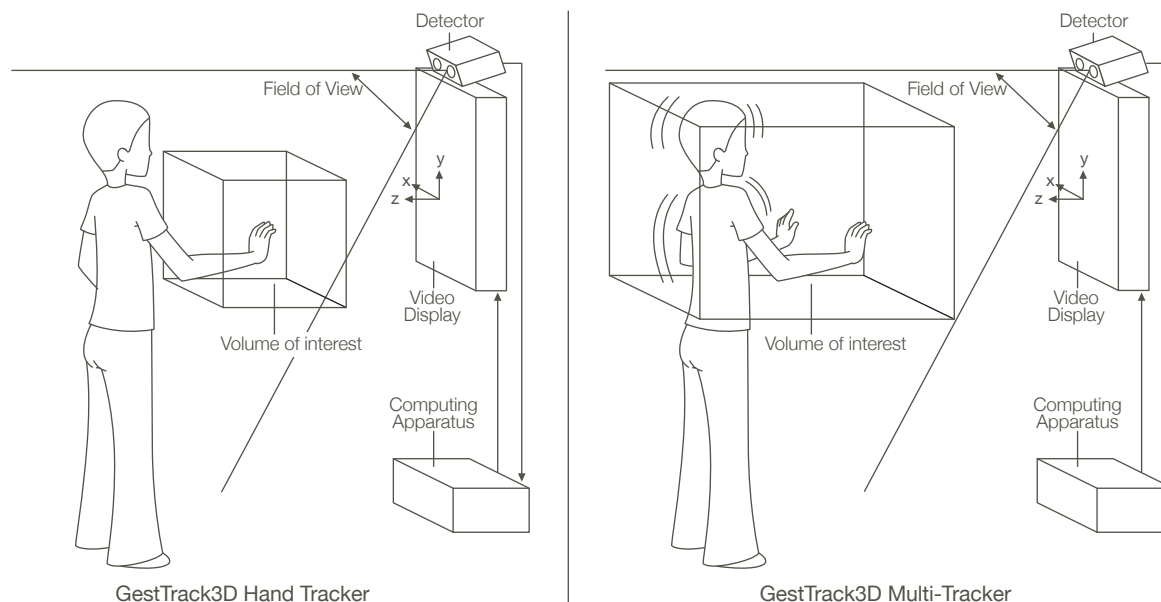
GestureTek has developed unique tracking and gesture recognition algorithms to define the relationship between computers and the people using them. With 3D cameras and our patented 3D computer vision software, computers can now identify, track and respond to fingers, hands or full-body gestures. The system comes with a depth camera and SDK (including sample code) that makes the x, y and z coordinates of up to ten hands available in real time. It also supports multiple PC development environments and includes a library of one-handed and two-handed gestures and poses.

GestTrack3D is designed to work with all 3D cameras, including:

- Fotonic B70
- MESA SwissRanger™ SR4000
- Canesta 2IS
- Panasonic Electric Works D-IMager
- Optex ZC-1070U or ZC-1050U
- Kinect™
- ASUS® Xtion PRO

GestTrack3D Hand Tracker

The GestTrack3D Hand Tracker drives touch-free cursor control on Windows-based applications by measuring the position of a user’s hand(s) within an adjustable volume and distance from the camera. The tracker can follow one hand or two hands to create a multi-touch mode, and can track up to ten hands simultaneously, best from a distance of up to two meters away (camera-dependent).



GestTrack3D Multi-Tracker

The multi-tracker detects multiple data points on the user’s body (head, torso, hands) enabling the creation of immersive full-body representations and aspects of avatar control. The tracker can recognize circle and swipe gestures and can support activities such as scrolling, enlarging, shrinking or rotating items. Tracking gestures have been used to control 3D navigation, as well as joystick, driving and drumming simulations.



Unique to GestTrack3D

The GestTrack3D gesture recognition platform offers everything you need to create the most advanced 3D depth-enabled applications imaginable.

- A large library of simple, intuitive 3D gestures and poses that are easy to learn and use
- Comprehensive design samples and tools for rapid application development
- Robust and scalable architectures to optimize memory and performance
- Extensive range of supported development environments (Adobe Flash, C, C++)
- Ability to make advanced adjustments (VOI, target size, cursor movement, report view)
- Collection of practical, industry-specific applications from prior 3D projects.

Potential Applications

- Touch-Free Computer Screens
- Remote Free Electronic Devices
- Video Game Environments
- Digital Signage Advertising
- Digital Whiteboards
- Virtual Shopping/Product Manipulation
- Computer-Based Physical Therapy and Rehabilitation
- Clean Rooms and Surgical Rooms
- Automotive Accessories (GPS, stereo, phone, sunroof)
- Household Systems/Appliances (light, temperature, phone, stove)
- Robotics and Factory Automation
- Self-Service Kiosks (way finding systems, ATMs)

3D Vision Tracking Success Stories



3D Vision Wall



Remote-Free TV



3D Tracking Digital Signage



3D Hand-Tracking Flight Simulator Attraction

Why GestureTek?

- Strong international patents, licensed by Microsoft for XBOX 360® and Sony for EyeToy®
- Broad knowledge and experience gained over ten years of 3D gesture product development
- Unparalleled expertise installing 3D vision tracking interactive display systems in public spaces
- Countless industry awards and accolades for our 3D computer vision solutions
- Deep experience porting our technologies to embedded platforms
- Successful projects and strong partnerships with OEMs, universities and third-party platforms
- Systems integration and content development expertise, when a turnkey solution is needed
- Custom multi-camera solutions available for seamless tracking of multiple users in large spaces

GestureTek's products are covered by one or more US and international patents. Contact GestureTek for licensing information.