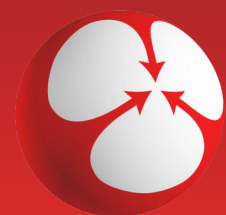




You are capable of more than you think

**Leonar3Do**

[www.Leonar3Do.com](http://www.Leonar3Do.com)





3D for All's multi-patented innovation, Leonar3Do, turns an ordinary PC into an interactive virtual reality system accessible to all.

### Our innate ability

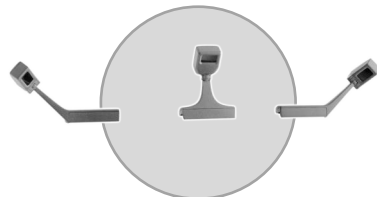
Our normal living environment is three-dimensional. Anyone wishing to create something in three dimensions must be able to see, think and plan in 3D. But our most important and traditional tools for this purpose are two-dimensional: pen and paper or a monitor and a mouse. Home users, teachers and many professional users would have started using virtual reality long ago – if only the necessary tools had been available.



Bird



Glasses



Sensors



Controller

### A world between the user and the monitor

Leonar3Do's main components: sensors mounted on the monitor; 3D glasses; a 3D marker (bird) to manipulate objects with a 3D cursor; and a controller. The result: a virtual world created in the space between the user and the monitor, a world you can manipulate using the bird.

## The Display

The visual presentation method developed for Leonar3Do dramatically decreases the flickering effect when compared to widely-used active 3D glasses. Thanks to this method and several other innovations, Leonar3Do is able to provide enjoyable images even on standard TFT-monitors.

To achieve full virtual reality however, it is not enough simply to bring the object out into the space in front of the monitor. To actually interact with virtual reality, a stable illusion of a three-dimensional space is needed, in which a virtual object appears exactly in its own place. This requires the computer to continually update the displayed images as the position of our eyes is changing. Thanks to head-tracking, the visual presentation is precise and strikingly realistic.

### Revolutionary new solution for position tracking

3D for All's aim to provide full virtual reality, accessible to everyone, required completely new, drastically cheaper, yet reliable, quick and precise solutions in the field of position tracking.

Typical resolution	> 100 dpi ~ 0.25 mm
Typical accuracy	+/- 5 mm
Maximum distance	100 cm
Degrees of freedom	6 DOF
Latency	16 ms
Update rate	60 Hz



## SDK

Public platform allows the adaptation or creation of any software applications for Leonar3Do using SDK.

## Hardware & Software requirements

CPU	Intel® Core™ 2 Duo or AMD Athlon™ X2 CPU or larger
Graphics card	NVIDIA 8 series or ATI HD 2400 series or better
RAM	2 GB or more
HDD	500 MB free disc space
Monitor	75-85 Hz TFT monitor; 120 Hz TFT monitor recommended
Operating system	Microsoft® Windows® XP SP3; Windows® Vista™; or Windows® 7

## LeoGames

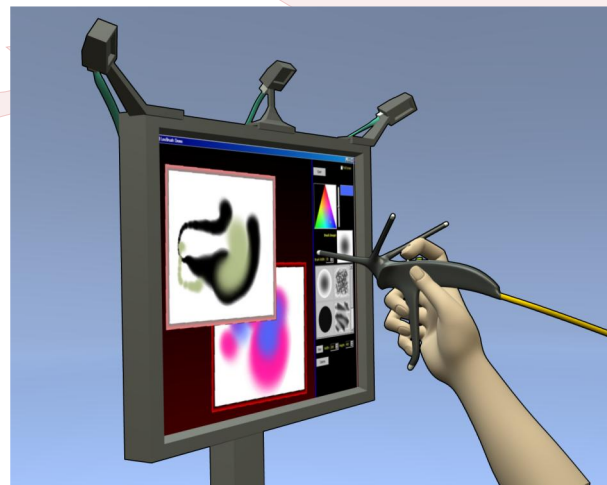
Computer games based on Leonar3Do's full virtual reality environment.

## LeoWorld

- Free form modeling (with unique, real-time polygon optimization, i.e. no expertise is required, no need to worry about the geometry of the object, just shape it and the rest is done by the software).
- Drawing in space
- Real time physics
- 3D painting
- Animation
- Importing and exporting to standard file formats (.stl, .obj, .3ds), so it can be used together with any 3D modeling software.

## LeoBrush

When using this program the bird functions as an airbrush and the monitor serves as our canvas.



### Seven with one blow

Leonar3Do's first application, as well as the many unique specialized solutions that followed, were all developed as part of a complete work environment. Leonar3Do's inherent value is that it is the world's first and only technology to meet all the criteria for mass-market use: (1) Affordable end-user price for home users; (2) Easy to install; (3) Easy and intuitive to use; (4) As a true working environment it provides a genuine added value that goes beyond mere novelty; (5) Ergonomically friendly; (6) Small enough to be used at home as well as in a professional workplace; (7) The user can easily switch between the 3D and the regular 2D operating modes.



### Breakthrough

The user – even a 10-12-year-old – can create his or her own virtual world in the space in front of the monitor: s/he can draw in space, create models and patterns, invent toys, make and play games, build structures out of predefined shapes, and much more, all in a way that previously could only be dreamed of in a science-fiction world.



With Leonar3Do it's easy to create any object, starting from a basic shape.



3D projection with Leonar3Do at CeBIT 2009.

**On a daily basis, professionals from a wide range of fields are turning to virtual reality to help in their work: from archeology to interior design; from constructing advertising stands to criminology; from engineering, medical and geological sciences to tourism and database management. The parent who purchases Leonar3Do, or the school that purchases the educational configuration, can foresee that big things are just ahead. They are not just buying a technological curiosity for the family or for the classroom; they are enabling their children and their students to become key figures in the IT revolution of tomorrow.**



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