



YouDirect the SmartTV



Camera-based
remote control technology

PHILIPS
sense and simplicity



uWand

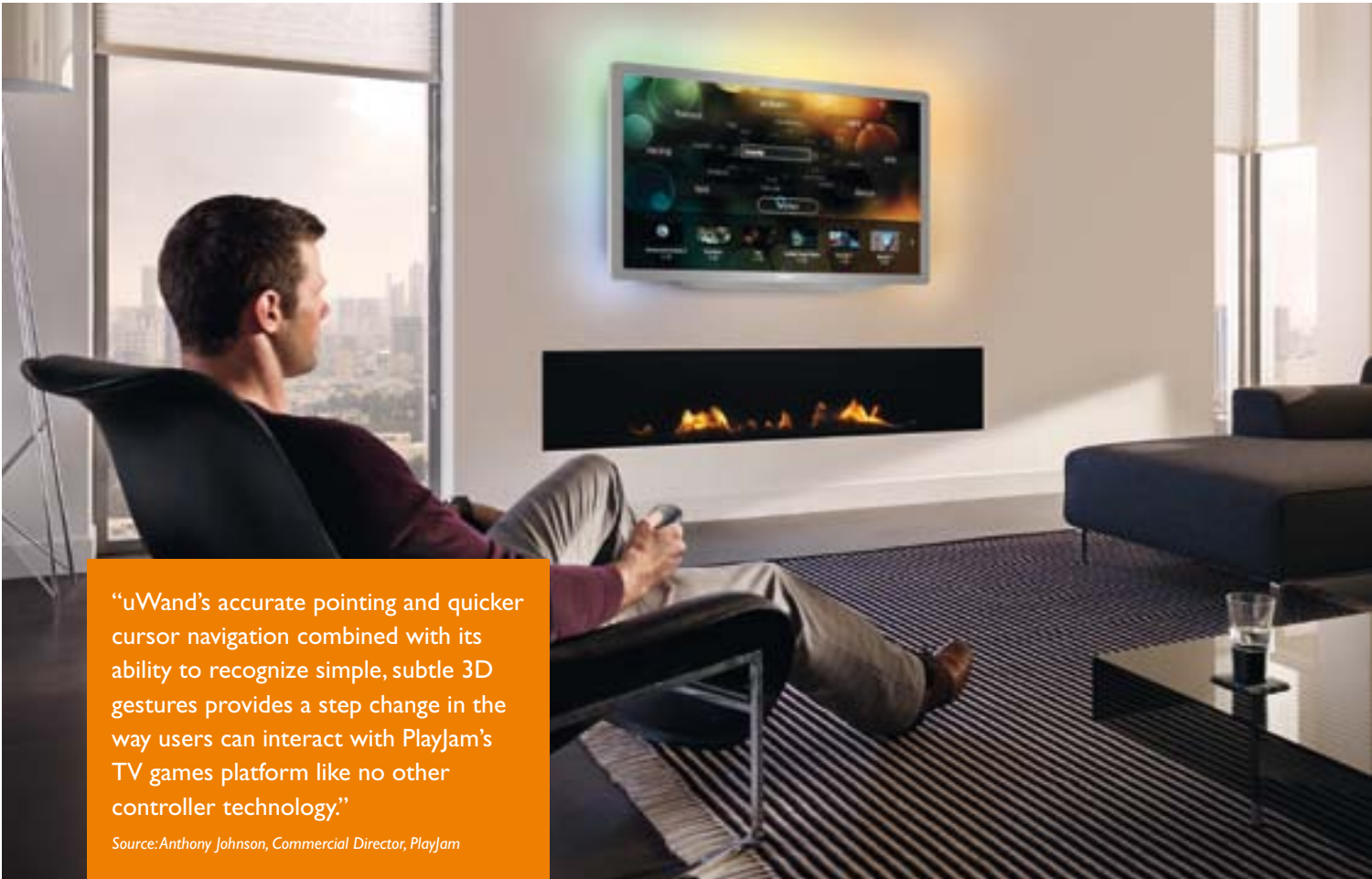


camera based pointing

uWand is an intuitive direct pointing and gesture control technology developed for Smart TV by Philips' Business line Media Interaction. This camera-based technology is embedded within remote controls to give users fluid and accurate direct control of the latest generation TVs and set-top boxes. In user tests 75% preferred direct pointing compared to alternative technologies such as gyroscopes and touchpads. Smart TV manufacturers and service providers can use uWand technology to generate new revenues from enhanced equipment sales, simplified premium content access, 'apps' and gaming.



Adding sophistication to the



“uWand’s accurate pointing and quicker cursor navigation combined with its ability to recognize simple, subtle 3D gestures provides a step change in the way users can interact with PlayJam’s TV games platform like no other controller technology.”

Source: Anthony Johnson, Commercial Director, PlayJam



- Easy and intuitive navigation with a relaxed viewing experience
- Creates a platform for engagement with premium video content
- Opens the door to sophisticated games and other interactive services

lean-back user experience



Next generation interaction

Using a mouse and keyboard on a PC, or a touchscreen on a smartphone or tablet, enables very precise control but those technologies aren't suitable for a living room environment. Smart TV needs a different approach to maintain intuitive user control, one that provides that same control precision when the user is sitting some distance from the screen.

uWand's direct pointing technology is designed specifically for use with Smart TV. From the comfort of the sofa it delivers the interaction and intuitive operation of a touch screen. While traditional remote controls restrict user interaction, uWand technology releases the constraints and, thus, delivers revenue generating opportunities. It allows consumers to fully engage with existing content and with new interactive services; from web access to social networking and games.

The new generation of TVs
needs a new generation
of remote,
one that is simple.

We all know how to point

uWand technology was built on an understanding of basic human gestures and in a particular, on direct pointing. Pointing is instinctive rather than learned behavior and uWand's camera-based technology allows the user to simply point, select and manipulate areas on the screen.

It is exactly the same approach that has made touch screens so successful for smart phones and tablets – consumers instinctively understand how to use them without having to learn new behaviors.

Naturally some applications will always require text input, and in those circumstances uWand technology can be incorporated into a remote that includes a keyboard and/or a microphone. Intuitive pointing makes an initial TV purchase much more attractive, engages the consumer and creates new revenue opportunities, from initial purchase to application sales, subscriptions and 'in-app' transactions.

Easy to implement

uWand technology is extremely easy to implement and can be incorporated into your own industrial design. With the uWand SDK, the cursor and gesture control elements can be simply enabled in Smart TV operating systems and user interfaces.



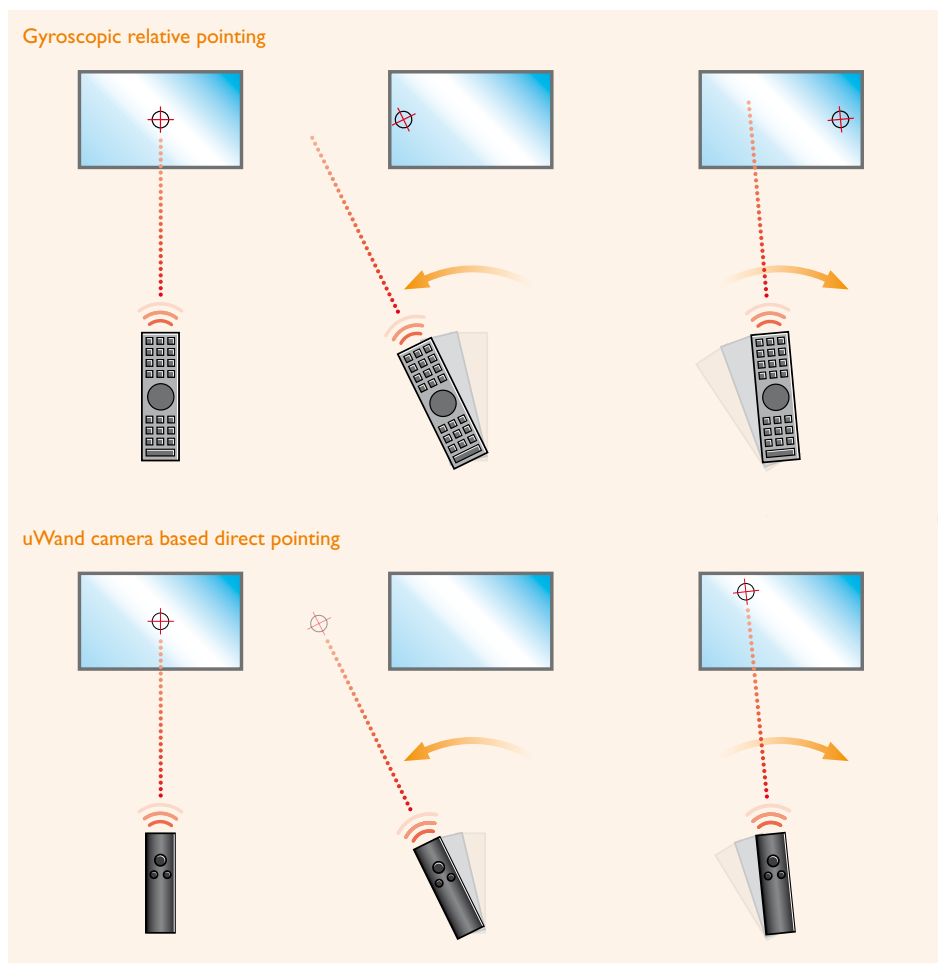
How it works

Philips' uWand technology is a complete firmware solution that incorporates two primary elements:

- An infrared camera embedded in a remote control device
- A reference beacon near or in the TV/set-top box

The camera continuously monitors the remote's position in relation to the target screen. The position co-ordinates (x, y, z and roll), together with button selections, are transmitted via a wireless link (Bluetooth, RF, or infrared) from the remote to the target device and the target device then makes the information available to the relevant application (e.g. TV EPG, game, picture library etc.).

The result is intuitive direct pointing – the cursor appears on the screen exactly where the user points the remote. In contrast, relative pointing devices based on gyroscopic technologies do not directly link the remote to the cursor and the remote soon becomes misaligned, not very intuitive.



“We believe a more intuitive remote control will help owners of Smart TVs solve the navigation and content discovery problem and simplify the search for apps within widget stores.”
Source: Strategy Analytics, August 2011

Option 1: Peripheral unit



Option 2: Integrated in TV/monitor





Revenue generation

TV

With more hours of broadcast TV, 'over-the-top' (OTT) content, catch-up programming and video on demand (VoD) available than any one person could watch in a lifetime, content discovery is challenging enough already. uWand dramatically improves on this experience by reducing the steps needed to navigate TV content, making it easier to interact with additional services, such as VoD libraries and allowing small hand and wrist movements to intuitively control navigation.

Multimedia

Smart TVs bring internet access and interactive applications to a big screen experience in the living room. uWand direct pointing technology brings the accuracy and intuition of tablet computers to Smart TVs to make navigating applications familiar. Similar to using a touch screen, users can select and manipulate any screen area with a high degree of accuracy. This sort of functionality makes an initial interaction much more attractive, engages the consumer and opens the door to on-going revenues from application sales, subscriptions and 'in-app' purchases.

Importantly, the technology allows mobile 'apps' to be redeployed on Smart TVs without major re-design efforts.

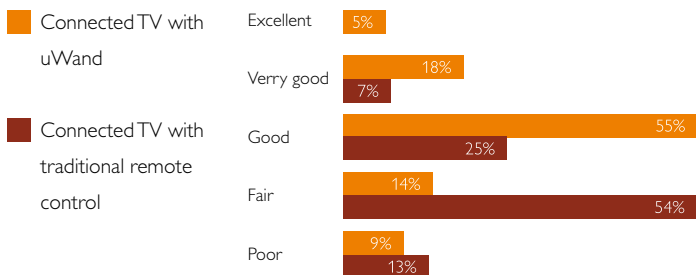
Gaming

Casual games are already extremely popular and, if enhanced with uWand technology, there is no reason why Smart TVs can't capture a significant share of this multi-billion dollar market. By providing a highly accurate, intuitive and responsive gaming controller built into the remote control, uWand technologies ensure a great gaming experience straight out the box:

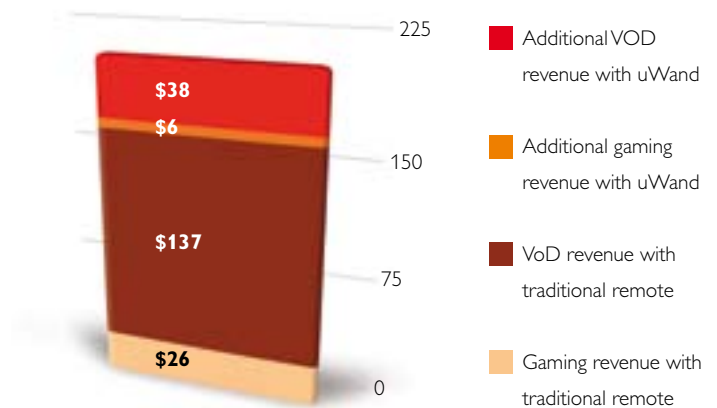
- Increasing initial interest in gaming on Smart TVs
- Enabling console-quality on-demand gaming services
- Removing the need for separate gaming peripherals
- Making casual gaming accessible to a much wider audience

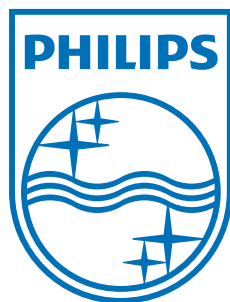
No other competitive controller technology offers a more natural gaming experience.

User satisfaction for connected TV service



uWand increases ARPU





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