

ultraleap 

Product Catalogue
Interactive Kiosks Range



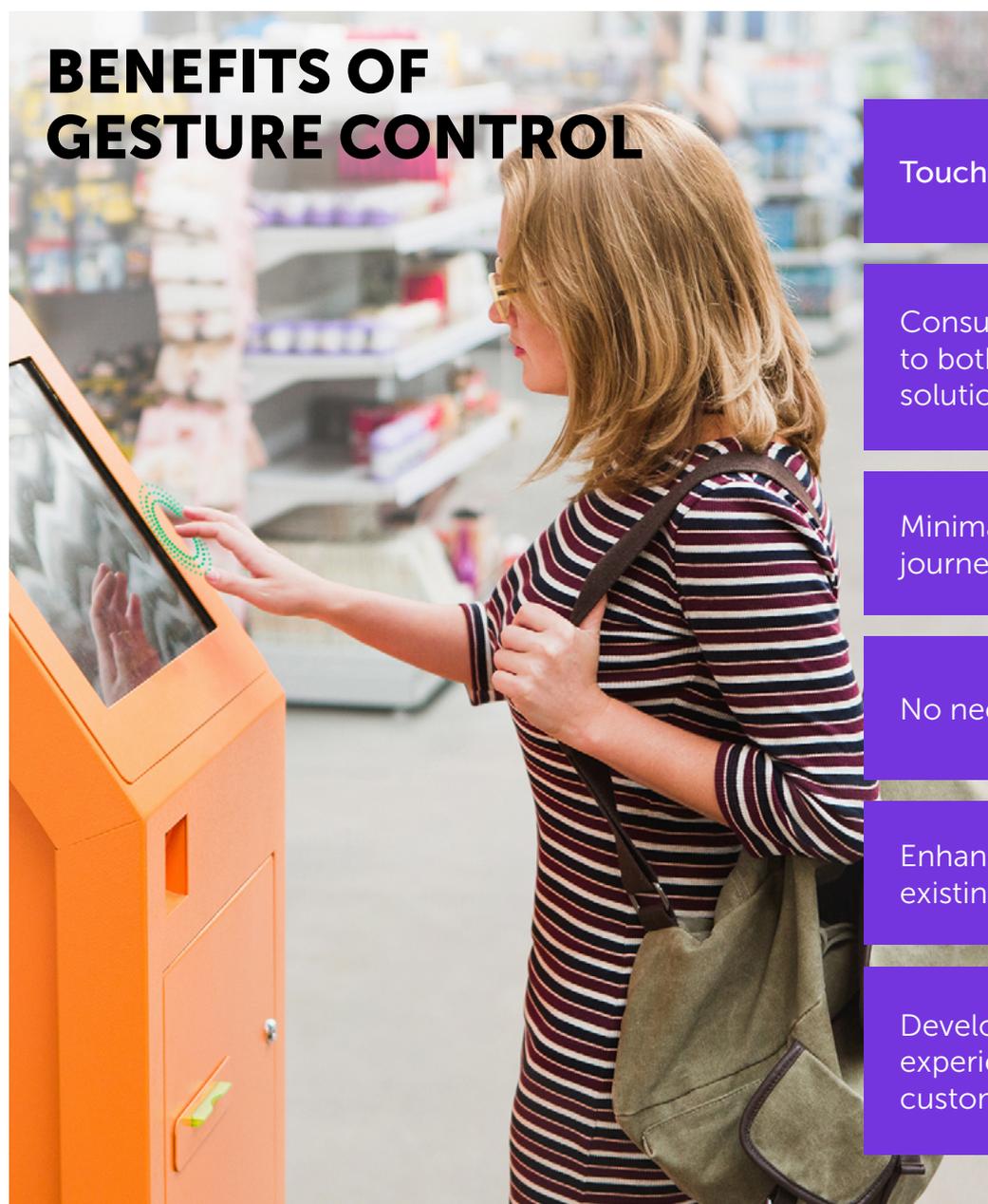
The challenge

Just 12% of people think touchscreens in public spaces are hygienic.¹ Post-pandemic consumers are looking for touchless alternatives – but they want smart, intentional solutions that do not require a tradeoff between hygiene and customer experience.

Ultraleap's gesture control solution

1. Mount an Ultraleap camera module or haptic module to your interactive kiosk.
2. Install our software. Your touchscreen kiosk is now enabled for touchless interaction.
3. You can retrofit existing kiosks and touchscreen interfaces.

Interactive kiosk customers can choose whether to use gesture control powered by hand tracking alone, or hand tracking plus our “virtual touch” haptics.



BENEFITS OF GESTURE CONTROL

Touchless, hygienic interaction

Consumers prefer gesture control to both touchscreen and mobile solutions²

Minimal impact on customer journey time

No need to use a separate device

Enhance rather than replace existing touchscreen kiosks

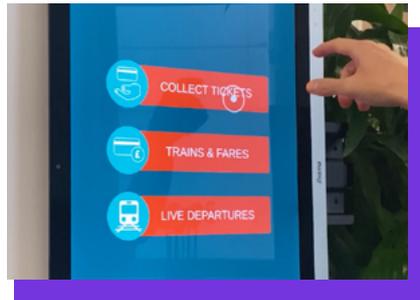
Develop innovative interfaces and experiences proven to increase customer engagement³

Touchless interaction for self-serve kiosks and marketing

Quick-service restaurants



Ticket vending



Hotel check-in



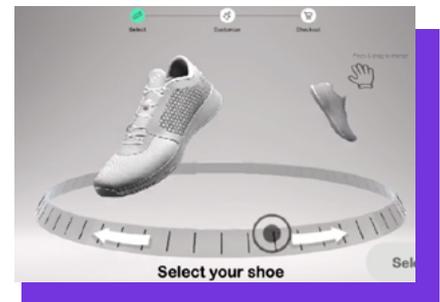
Interactive brand experiences



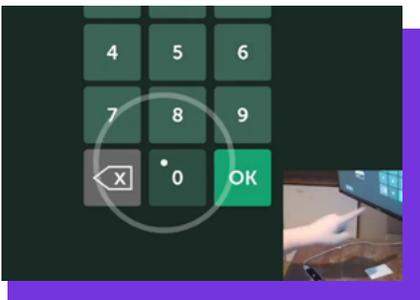
Interactive advertising



Product exploration



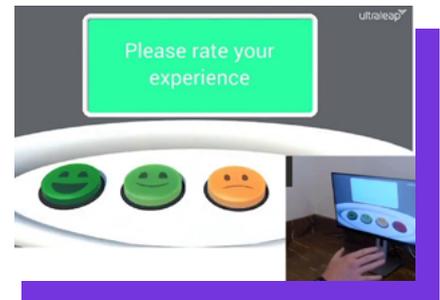
ATMs



Elevators



Wayfinding and visitor management



Leap Motion Controller™

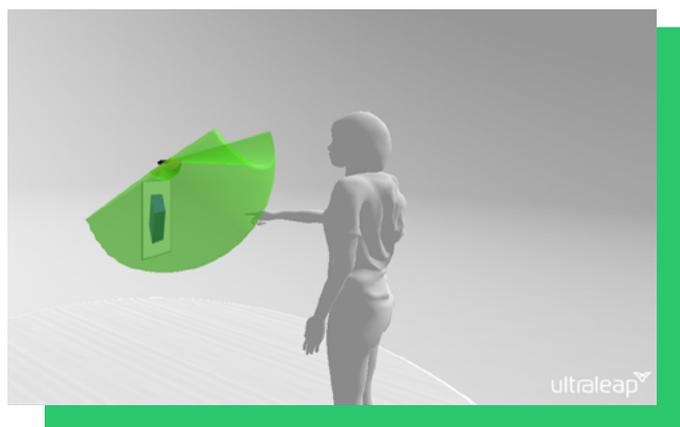
Hand tracking camera module

The Leap Motion Controller from Ultraleap is a camera module that captures the movement of users' hands and fingers so they can interact naturally with digital content.

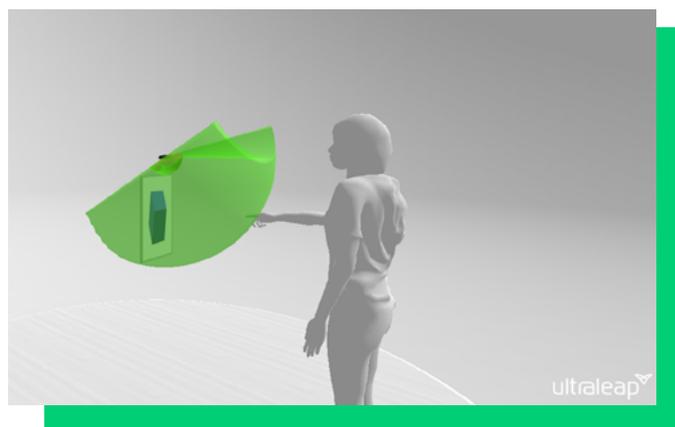
Small, fast, and accurate, the Leap Motion Controller is capable of tracking hands within a 3D interactive zone that extends up to 60cm (24") or more, extending from the device in a 140x120° typical field of view. The software is able to discern 27 distinct hand elements, including bones and joints, and track them even when they are obscured by other parts of the hand.



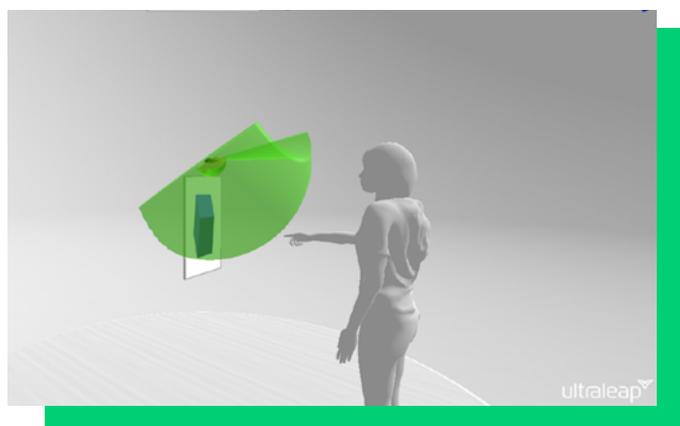
Simulation of Leap Motion Controller tracking range when mounted above a selection of screen sizes



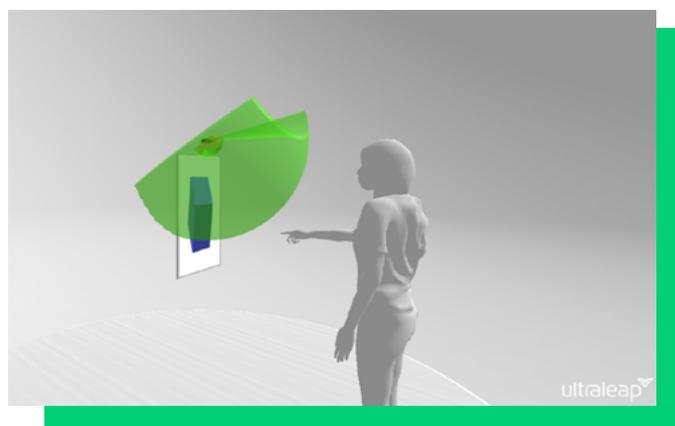
19" screen.



21" screen.



27" screen.



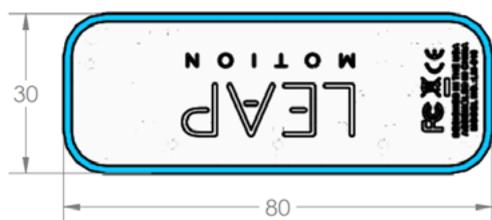
32" screen.

Visualizations of other screen sizes and camera positions available on request or by using our online [Camera Position Visualizer tool](#).

Leap Motion Controller specifications

Power supply:	5V DC via USB connector (minimum 0.5A)
Data connection:	USB 2.0 (packaged with USB 2/3 hybrid cable, but can be used with any certified USB standard cables with the Hi-Speed USB 2.0 logo featured on the packaging).
Ingress protection:	Splash resistant
Mounting methods:	May be mounted above facing screen, below or above facing user and can be retrofitted to existing installations. Contact Ultraleap for detailed mounting options.
Interaction zone:	Depth of up to 60cm (24") preferred, up to 80cm (31") maximum; 140x120° typical field of view. Tracking works in a range of environmental conditions.
Cameras:	Two 640x240-pixel near-infrared cameras; spaced 40 millimetres apart; with infrared-transparent window, operate in the 850 nanometre +/-25 spectral range; typically operates at 120Hz; capable of image capture within 1/2000th of a second.
LEDs:	Three, spaced on either side and between the cameras, baffled to prevent overlaps.
Construction:	Aluminium and scratch-resistant glass
Ambient operating temperature:	0° to 45°C (32° to 113° F)
Storage temperature:	-10° to 50° C (14° to 122° F)
Relative Humidity:	5% to 85% (non-condensing)
Operating Altitude:	0 to 3048 meters (0 to 10,000 feet)
Compliance:	CE, FCC, CAN ICES-3, REACH, RoHS
Minimum system requirements (desktop):	Windows® 7+ or Mac® OS X 10.7 (note that OSX is no longer formally supported); AMD Phenom™ II or Intel® Core™ i3/i5/i7 processor; 2 GB RAM; USB 2.0 port.

All dimensions are in mm



Weight: 32g

Stereo IR 170 Evaluation Kit

Hand tracking camera module

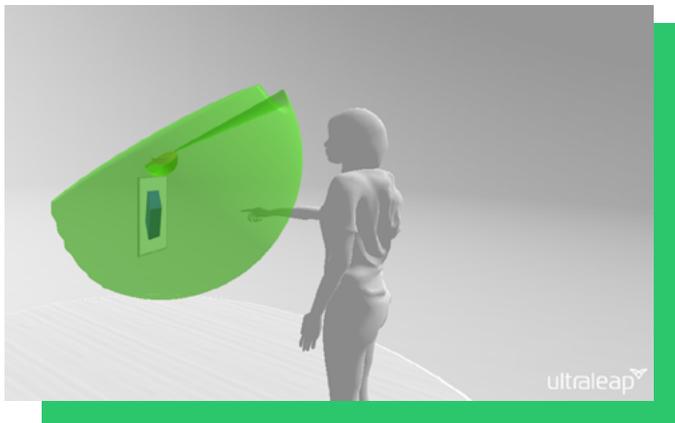
The Ultraleap Stereo IR 170 is a next-generation camera module that captures the movement of users' hands and fingers so they can interact naturally with digital content.

The Stereo IR 170 Evaluation kit consists of the Ultraleap Stereo IR 170 in a plastic housing with USB header, allowing for easy plug-and-play evaluation.

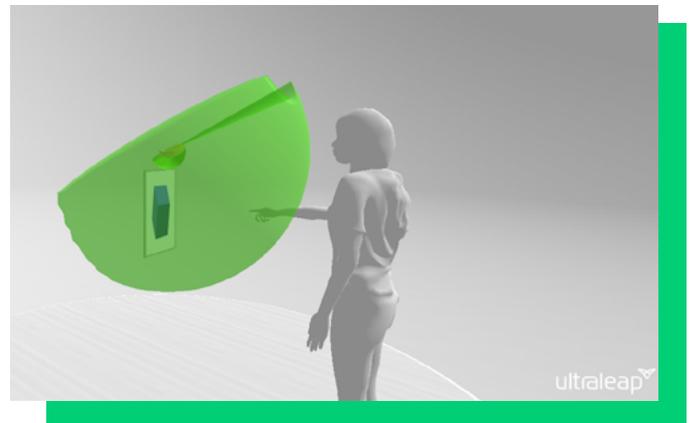
Ultraleap Stereo IR 170 features a wider field of view, longer tracking range, lower power consumption, and slimmer form factor than the Leap Motion Controller. It's capable of tracking hands within a 3D interactive zone that extends from 10cm (4") to 75cm (29.5") or more, extending from the device in a 170x170° typical field of view (160x160° minimum).



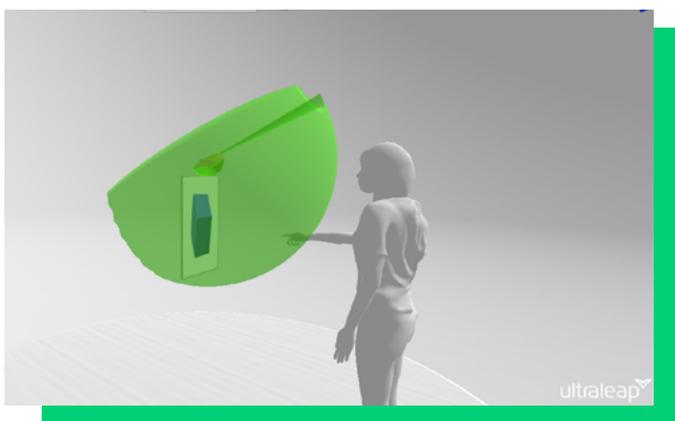
Simulation of Stereo IR 170 Camera Module tracking range when mounted above a selection of screen sizes



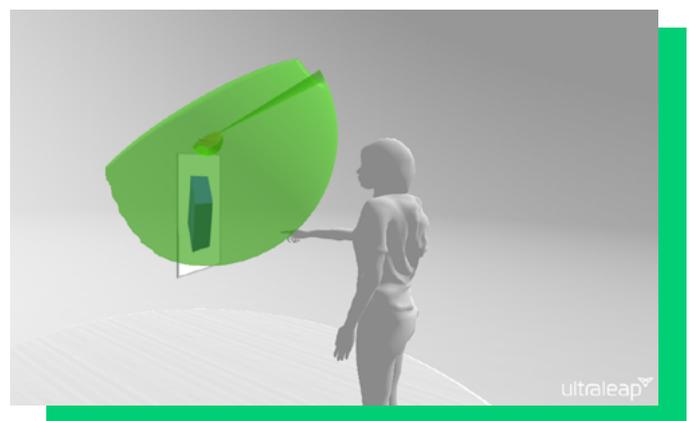
19" screen.



21" screen.



27" screen.



32" screen.

Visualizations of other screen sizes and camera positions available on request or by using our online [Camera Position Visualizer tool](#).

Stereo IR 170 Evaluation Kit specifications

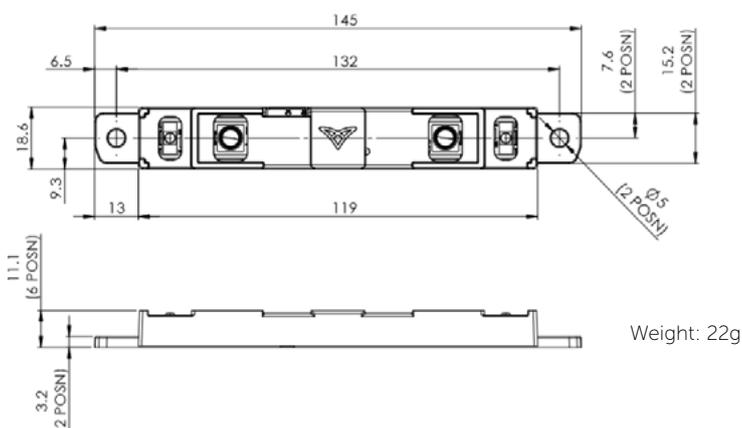
Power supply:	5V DC via USB connector (minimum 0.5A).
Data connection:	Micro USB Type-B (2.0 or 3.0) when in plastic housing. When integrated, PCB module can be wired directly.
Mounting methods:	May be mounted above facing screen, below or above facing user and can be retrofitted to existing installations. Contact Ultraleap for detailed mounting options.
Interaction zone:	Depth of between 10 cm (4") to 75cm (29.5") preferred, up to 1 m (39") maximum; 170x170° typical field of view (160x160° minimum). Tracking works in a range of environmental conditions.
Cameras:	Stereo IR operating at 90fps
Operating wavelength:	850nm. Stereo IR 170 provides its own illumination via two IR LEDs spaced on either side of the cameras.
Ambient operating temperature:	0° to 40°C (32° to 104° F) <i>N.B. Out of case operating temperature range is slightly wider, 0° to 50°C (32° to 122° F).</i>
Minimum system requirements:	Windows® 7+; AMD Phenom™ II or Intel® Core™ i3/i5/i7 processor; 2 GB RAM; USB 2.0 port. Note: The Stereo IR 170 Evaluation Kit is currently Windows compatible only
Software:	Downloadable from https://www.developer.ultraleap.com

Ultraleap reserves the right to update or modify this specification without notice.

Intended use

The Stereo IR 170 Evaluation Kit is intended for exploration and development purposes only. This version of hardware is not tested or certified compliant to CE requirements or equivalent international standards. Additional integration and certification will be required for use in commercial and other deployments. [Contact Ultraleap](#) for advice and support.

All dimensions in mm



CAD files for an Evaluation Kit mount are also available from www.developer.ultraleap.com.

These can be used when prototyping, particularly in instances where the Evaluation Kit will regularly be removed and replaced.

TouchFree application

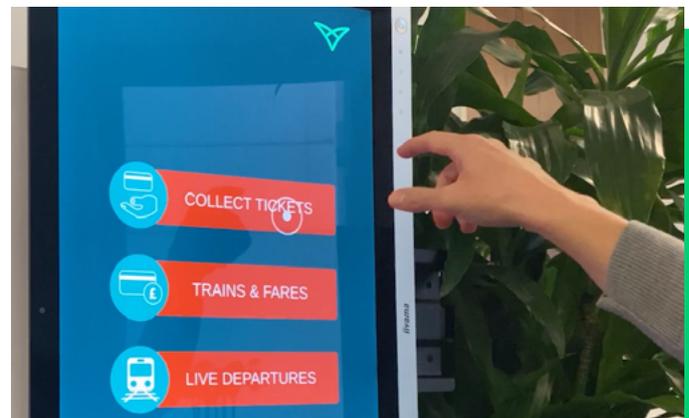
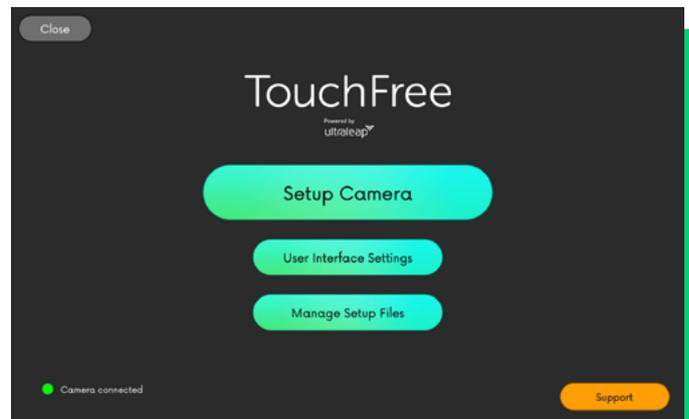
Add touchless gesture control to existing interactive screens

TouchFree is a software application for use with our hand tracking modules. It detects a user's hand in mid-air and converts it to an on-screen cursor.

- Install the hand tracking SDK (Windows 4.1+) and TouchFree on your kiosk PC.
- Mount an Ultraleap camera module to the kiosk PC and connect it via USB.
- Open TouchFree and configure it to work with your target screen.
- A hand-driven overlay now runs on top of your kiosk UI, enabling touchless interaction.

Familiar touchscreen-style interactions:

- A user's hand is detected, and shown as a cursor displayed on the screen
- Users can select items without touching the screen using a simple Air Push interaction, similar to tapping a screen but in mid-air.
- To drag or scroll, Air Push, then move.
- Includes option of adding "Call to Interact" graphics to engage and instruct first-time users how to operate the kiosk.



Specifications

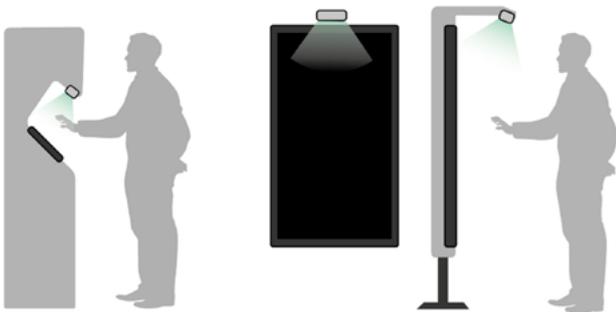
Minimum system requirements:	<ul style="list-style-type: none"> • Ultraleap Leap Motion Controller or Stereo IR 170 camera module • Hand tracking SDK 4.1+ • Windows® 10, 64-bit, minimum Intel HD Graphics 530, Intel® Core i5/i7 processor, 4 GB RAM • USB 2.0 port
Software:	Downloadable from https://www.developer.ultraleap.com

Hand tracking camera module mounting options

Our standard hand tracking SDK supports Above Facing Screen and Below camera module mounting positions within TouchFree.

To use our third camera position, Above Facing User, contact Ultraleap. At present, Above Facing User is only available on our restricted Early Access Program.

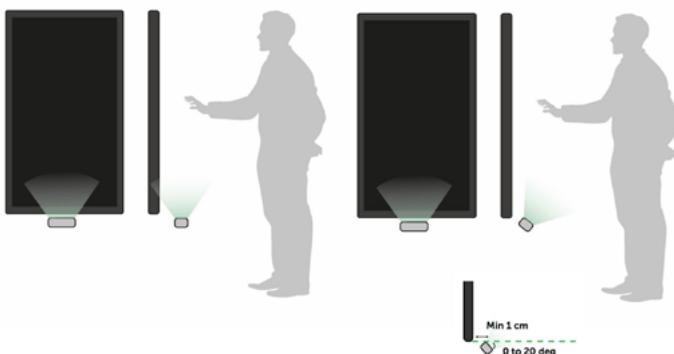
Above facing screen



The Ultraleap camera module should be at least 10cm away from the highest point where the hand enters.

The camera tilt should be between 15° to 85° from the horizontal.

Below

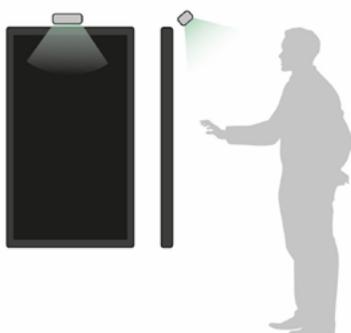


The Ultraleap camera module should be at least 10cm below the lowest point on the screen that users will interact with.

The camera tilt should be no more than 20° from the horizontal.

Ensure that the camera is a minimum of 1cm away from the screen.

Above facing user



The Ultraleap camera should be positioned so that it is at least 15cm from the highest point on the screen that users will be interacting with.

The camera tilt should be no more than 30° from the horizontal – recommended angles are between 15° to 30°.

For best results, you must ensure that the camera is positioned at a minimum depth of 1 cm away from the screen.

At present, Above Facing User is only available on our restricted Early Access Program. Please [contact Ultraleap](#).

Design guides and tools

Our documentation site is an extensive resource for anyone developing touchless interfaces.

Visit <https://docs.ultraleap.com/>

Camera Position Visualizer Tool

The Ultraleap [Camera Position Visualizer \(CPV\) tool](#) is designed to help determine the ideal position for an Ultraleap camera module.

- Simulate kiosk setup – test different Ultraleap camera module placements to optimize placement and angle.
- Show a visualization of the 3D zone where the Ultraleap camera module is able to track hands
- Customize virtual kiosk to different screen sizes and orientations.
- *You do not need an Ultraleap camera module to use the Camera Position Visualizer. Explore the CPV to help decide which Ultraleap camera module best meets your requirements.*

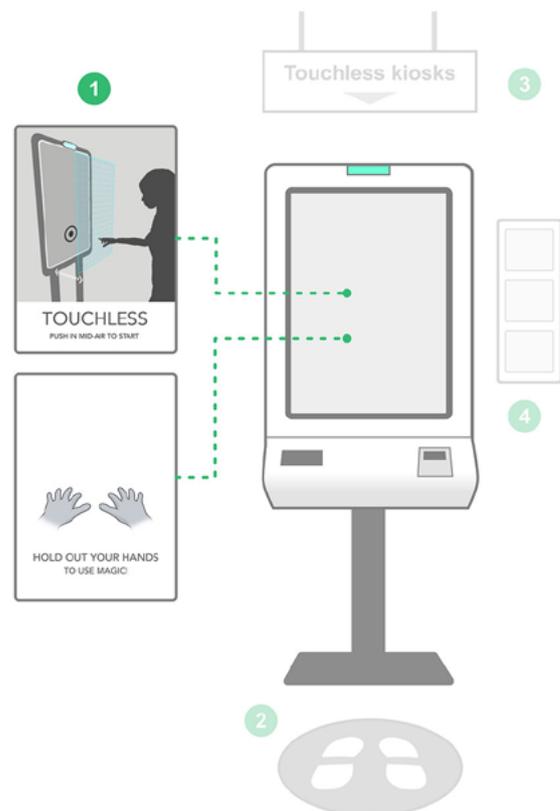


How to engage new users: The “Call to Interact”

A [collection of instructional elements](#) we call the “Call to Interact.” Make discovery and adoption engaging, intuitive, and fast.

Together, these elements indicate to customers:

- That the display is a touchless interactive kiosk
- The principles of how you use one
- Where they should stand to use it
- Where they should position their hands
- How to use their hands to interact



- 1 Looping, on-screen instructional animation of graphic (included in TouchFree). *Required.*
- 2 Footprint graphic (stickers or mat on the floor). *Recommended.*
- 3 Nearby environmental signage. *Recommended.*
- 4 Printed instructional panel. *Recommended.*

STRATOS™ Inspire

Haptic module (hand tracking + mid-air tactile effects)

STRATOS Inspire is a robust plug-and-play haptic module suitable for creating sophisticated mid-air tactile effects. STRATOS Inspire can be bolted onto existing display solutions or used to develop innovative new experiences.

STRATOS Inspire tracks users' hands using the Leap Motion Controller, and projects tactile effects onto them using ultrasound. This creates a 3D, tactile interaction zone over 63cm d x 48cm w x 48cm h (25" d x 19" w x 19" h).

The simplest type of effect is a single pressure point measuring as little as 8.6mm in diameter. With a 40kHz refresh rate, pressure points are then moved very rapidly in 3D space to create a variety of tactile effects in mid-air including:

- Virtual buttons and sliders, as well as haptic pulses and alerts
- Immersive sensations such as textures, and presence for virtual objects, surfaces, and shapes
- Sensations such as lightning, fireballs, ghosts, clouds, bubbles and force fields



Simulation of zone where tactile sensations can be felt when mounted on 48" digital poster standee using connector mount



● **Maximum tactile interaction zone**

Approx 70cm d x 56cm h x 56cm w
(28" d x 22" h x 22" w)

● **Ideal tactile interaction zone**

Approx 63cm d x 48cm h x 48cm w
(25" d x 19" h x 19" w)

Power supply:	24V DC +/- 10%, 3.75A max.
Data connection:	USB Type C connector
Ingress protection:	IP4X, splashproof
Mounting methods:	<p>VESA 100x100mm mount and desk stand included. May be:</p> <ul style="list-style-type: none"> • Mounted using a connector mount • Mounted slung under a digital display • Wall or cabinet mounted • Mounted to monitor stand or desktop • Part-recessed into a cabinet • Mounted on a desk or other flat surface <p>See our developer site for detailed integration guidance.</p>
Haptic interaction zone:	<p>Ideal interaction zone approx.: 63cm d x 48cm h x 48cm w (25" d x 19" h x 19" w). Maximum interaction zone approx.: 70cm d x 56cm h x 56cm w (28" d x 22" h x 22" w)</p>
Hand positioning device:	Leap Motion Controller (embedded in module)
Ultrasound transducers:	256
Construction:	Die cast and machined aluminum, stainless steel
Ambient operating temperature:	0°C to +40°C / 32°F to 104°F
Compliance:	CE, FCC, NRTL, PSE, RoHS, REACH
Compatible operating systems:	Microsoft Windows (7, 8, 8.1 and 10), Apple MacOS (10.10 onwards), Ubuntu, Linux 16.04 LTS or later. <i>NOTE: Most mid-air haptics demos support only Microsoft Windows. Please check with Ultraleap if unsure.</i>
Minimum system requirements:	Intel Core i3; AMD Phenom II with 2GB RAM and USB 2.0 port
Recommended system requirements:	Intel Core i5/i7 or AMD Ryzen with 4GB RAM, USB 2.0 and dedicated graphics processor
Software:	Downloadable from https://developer.ultrahaptics.com/

	Length	Width	Depth	Weight
Metric	188 mm	430 mm	54 mm	3.1 kg
Imperial	7.5"	17"	2.125"	7 lb

- 1 Front grille
- 2 Leap Motion Controller
- 3 Desktop stand
- 4 Sealing position for recessed installation
- 5 Fan inlet/outlets
- 6 Rating plate with serial number
- 7 Power socket
- 8 USB Type-C port
- 9 Security bolting point
- 10 VESA 100 x 100 mount



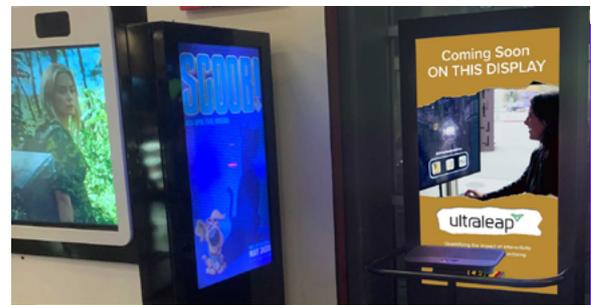
Ultraleap's industry-leading partners include:



Kiosk installation examples



LEGO touchless, tactile advertising campaign using STRATOS Inspire haptic module. Developed by **Ocean Outdoor**.



Touchless digital poster standees developed by cinema lobby/advertising specialist **CEN** using the STRATOS Inspire haptic module.



Skoda touchless interactive advertising campaign using Stereo IR 170 camera module.



Touchless cinema advertising for live releases **Shazam**, **Pokémon: Detective Pikachu** and **The Curse of La Llorona** using STRATOS Inspire haptic module



Visionaries 777 hologram brand experience using Leap Motion Controller camera module plus **LookingGlass** holographic displays.



Cortina Productions touchless display for the **Aquarium of the Pacific** Voices in the Sea exhibit using TouchFree application

Ready to get started?

TALK TO OUR TEAM

<https://www.ultraleap.com/contact-us/>

HOW WE SUPPORT YOU

Ultraleap offer an end-to-end solution for touchless interactive kiosks, from initial design and integration through to marketing support.



Design guidelines and review



Technology integration support



User testing/pilots setup and guidance



Go-to-market support

We have a team of more than 150 spread across the world, with locations in Silicon Valley, US and Bristol, UK. It includes world-leading experts in interface design, acoustics, machine learning, and computer vision.

Ultraleap is ISO 9001 accredited and our technology is widely used in VR/AR, automotive, digital out-of-home marketing, and self-serve kiosks.

BUY TRACKING PRODUCTS ONLINE

<https://www.ultraleap.com/tracking/>



Stereo IR 170 Evaluation Kit



Leap Motion Controller

BUY HAPTICS PRODUCTS ONLINE

<https://www.ultraleap.com/haptics/>



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