

# OptiUIO™

## Calibration & Operations Manual

The LiDAR Interaction Layer for Large Surfaces

Version: 20251014\_V1-5-0\_Beta\_4

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Interactive Asia Co., Ltd.

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# OptiTUIO Manual Overview

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Welcome to the online OptiTUIO Manual. OptiTUIO is a calibration tool for optical LiDAR sensors, creating interactive spaces.

## # Introduction

OptiTUIO™ is a professional calibration tool designed to link optical LiDAR sensors with your applications. It enables the use of high-performance laser scanners (such as the Leuze ROD4, Hokuyo sensors, or Sick LMS models) to create interactive surfaces.

OptiTUIO™ detects and transmits multi-user touchpoints that can be processed by any compatible receiver application. The software offers three main output methods: TUIO, Mouse simulation, and native Windows Touch. Any application supporting these protocols can easily integrate with OptiTUIO™ to transform large flat surfaces into interactive zones.

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## # Features

- **Simplicity:** The software is straightforward and designed for rapid setup. The calibration workflow takes only a few minutes, with real-time feedback showing the effects of changes instantly.
- **Live Preview:** The interface displays a real-time visualization of the scanned area, showing exactly where your sensor and screen are placed for easy fine-tuning.
- **Multi-Touch Interaction:** Supports simultaneous tracking of multiple touchpoints. The operational limits are determined by the angular resolution of the selected laser and the minimum object size configured.
- **Multiple Output Methods:** Transmits TUIO data over networks or simulates mouse/touch inputs locally on a Windows environment. Swipes and gestures can also be processed (e.g., using additional helpers for PowerPoint control).
- **Vendor Independence:** Operates with a wide range of industry-standard LiDAR sensors. Depending on the device specs, scanning ranges of up to 30-50 meters can be monitored.
- **Multiple Output Mapping:** Route inputs to multiple targets simultaneously, facilitating complex cluster configurations or multi-screen setups.
- **Highly Optimized Filters:** Incorporates advanced signal filtering based on millions of device data points to reduce jitter and maintain extremely low latency. Smoothness and speed can be balanced using adjustable parameters.
- **Multilingual UI:** The GUI supports English, German, Chinese, French, Arabic, Portuguese, Spanish, and Thai.

## INFO

### Manual Metadata

- **Document Version:** 20251014\_V1-5-0\_Beta\_4
- **Last Manual Update:** 19th June 2026
- **Target OS:** Windows 7, 10, 11 (X86/X64)

# System & Hardware Requirements

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Operating system compatibility and minimum hardware requirements for running the OptiTUIO software.

## # Operating System Compatibility

OptiTUIO™ is optimized for low-latency operation on the following systems:

- **Windows:** Windows 7, Windows 10, Windows 11 or newer (64-bit recommended).
- **macOS:** Mac OS X 10.12 Sierra or newer is supported on legacy releases.

### WARNING

#### macOS Deprecation Notice

macOS is not supported for future versions of OptiTUIO™. The last release supporting macOS is v1.2.3.

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## # Hardware Requirements

To guarantee smooth calibration and processing, ensure your machine meets or exceeds the following requirements:

- **Processor (CPU):**
  - x86 or x86-64 processor supporting the SSSE3 instruction set.
  - Intel processors starting from Core 2 and Atom.
  - AMD processors starting from Bobcat APU.
- **Memory (RAM):** Minimum 256 MiB of free RAM (higher allocated RAM is recommended for setups with multiple high-frequency sensors).
- **Storage:** At least 100 MiB of free hard disk space.
- **Graphics:** An OpenGL 2.0 compatible graphics card is required for the calibration software interface (OptiTUIO.Calibration.exe).

# Supported Sensors

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Comprehensive list and technical comparison of LiDAR sensors compatible with OptiTUIO software.

## # Supported LiDAR Sensors

OptiTUIO™ works out-of-the-box with a variety of professional LiDAR sensors. Depending on the scale and environment of your project, you can choose from the following models:

- **Hokuyo:**
  - Hokuyo UST-10LX (OT-1000)
  - Hokuyo UST-10LX H01 (OT-1500)
  - Hokuyo UST-20LX
  - Hokuyo UST-20LX H01 (OT-2000)
  - Hokuyo UST-30LX (OT-3000)
  - Hokuyo URG-04LX
  - Hokuyo UTM-30LX
  - Hokuyo URM-40LC-EWT
- **Sick:**
  - Sick LMS 1xx series
  - Sick LMS 5xx series
  - Sick LMS 4000 series (High-Speed Sensor)
- **Leuze:**

- Leuze ROD4 plus series
- Leuze ROD508 (OT-MAX)
- **KELI:**
- KELI LS2 (OT-800)
- **LeiShen:**
- LeiShen LS01B / LS01B1
- LeiShen N301
- **LDROBOT:**
- LDROBOT LD06 (OT-500)

## WARNING

### Important Firmware & Support Guidelines

- **Firmware Updates:** Do not change or update the sensor firmware unless explicitly instructed by Interactive Asia Co. Ltd. or the device manufacturer. Unapproved firmware updates may cause instability or compatibility failures.
- **OT-800 / KELI LS2 Support:** Technical support for KELI LS2 sensors is provided only for devices purchased directly from **\*\*Interactive Asia Co. Ltd.\*\***
- **OT-500 / LDROBOT LD06 Support:** Technical support for LDROBOT LD06 sensors is provided only for devices purchased directly from **\*\*Interactive Asia Co. Ltd.\*\***

## # Sensor Specifications Comparison

The table below outlines the core specifications of supported devices, including range, angular resolution, scan rate, and connectivity.

Sensor Model	Bundle	Accuracy	FOV	Res.	Scan Rate	Range	Conn.	Out.	IP
Hokuyo UST-10LX	OT-1000	±30mm	270°	0.25°	40Hz	10m	Ethernet	No	IP65
Hokuyo UST-10LX H01	OT-1500	±20mm	270°	0.125°	40Hz	10m	Ethernet	No	IP65
Hokuyo UST-20LX	-	±30mm	270°	0.25°	40Hz	20m	Ethernet	No	IP65
Hokuyo UST-20LX H01	OT-2000	±20mm	270°	0.125°	40Hz	20m	Ethernet	No	IP65
Hokuyo URG-04LX UG04	-	±30mm	240°	0.36°	10Hz	3m	USB	No	none

Sensor Model	Bundle	Accuracy	FOV	Res.	Scan Rate	Range	Conn.	Out.	IP
Hokuyo UTM-30LX	-	±30mm	270°	0.25°	40Hz	30m	USB	No	N.A.
Sick LMS 1xx	-	±25mm	270°	0.25°/0.5°	25Hz/50Hz	20m	Ethernet	Yes	IP65/IP67
Sick LMS 5xx	-	±25mm	190°	0.166°/1°	25Hz-100Hz	30m	Ethernet	Yes	IP65/IP67
Sick LMS 4000	-	N.A.	70°	0.0833°	600Hz	0.7m – 3m	Ethernet	N.A.	N.A.
Leuze ROD4 plus	-	N.A.	190°	0.36°	25Hz/50Hz	15m	Ethernet	Yes	IP65
KELI LS2	OT-800	±20mm	270°	0.33°	28Hz	8m – 10m	Ethernet	No	IP65
LeiShen LS01B / LS01B1	-	±20mm	360°	0.25°	10Hz	5m	USB	No	N.A.
Hokuyo UST-30LX	OT-3000	±20mm	270°	0.25°	40Hz	30m	Ethernet	No	IP65
LDROBOT LD06	OT-500	±30mm	360°	1°	10Hz	0.02 – 12m	USB	No	IPX-4
Hokuyo URM-40LC-EWT	-	±20mm	270°	0.25°/0.125°	40Hz/20Hz	0.1m – 40m	Ethernet	Yes	IP67
LeiShen N301	-	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	TODO: confirm N.A.
Leuze ROD508	OT-MAX	±20mm	180°	0.2°/0.1°	80Hz/50Hz	30m	Ethernet	N.A.	N.A.

\*Note: For Hokuyo UST-10LX (H01), Hokuyo UST-20LX (H01), and Hokuyo URG-04LX, these devices are added via the Hokuyo URG connection option in the device selection menu.\*

# Installation & Directory Structure

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Instructions on extracting the OptiUIO archive, verifying files, and installing the required Visual C++ runtime.

## # Windows Installation

On a Windows system, OptiUIO™ runs as a portable application and does not require a formal installation process.

To get started:

1. Download the OptiUIO™ zip archive.
2. Extract the archive into a dedicated directory on your system.
3. Launch the calibration utility to begin setup.

### IMPORTANT

#### Visual C++ Runtime Required

OptiUIO™ requires the Microsoft Visual C++ Redistributable to run. You can find the installer (vcredist\_x64.exe) directly inside the extracted bin32 or bin64 folders.

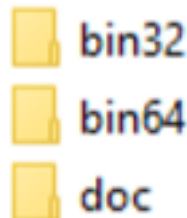
**If the VC++ runtime is not installed on the system, OptiUIO™ will fail to start.**

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## # Directory Structure

Once extracted, the main folder contains three subdirectories:

- **bin32**: Holds all 32-bit application binaries, configuration files, and libraries.
- **bin64**: Holds all 64-bit application binaries, configuration files, and libraries.
- **doc**: Contains licensing documentation and local release notes (CHANGES.html).



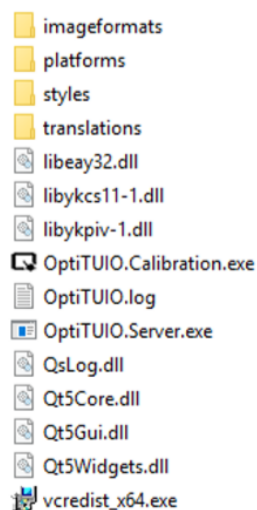
OptiUIO Folder Directory Structure

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## # Application Files

Inside the bin32 or bin64 folders, the following key files are included:

- **OptiTUIO.Calibration.exe:** The main graphical interface (GUI) used to add sensors, configure tracking zones, calibrate coordinate mapping, and save settings.
- **OptiTUIO.Server.exe:** The background runtime console wrapper. It runs without a graphical interface, reducing system resource utilization.
- **OptiTUIO.log:** Log file where warning levels, errors, and system activity are recorded.
- **Support Files & DLLs:**
  - Core Qt libraries: Qt5Core.dll, Qt5Gui.dll, Qt5Widgets.dll.
  - OpenSSL libraries: libeay32.dll.
  - Tracking support DLLs: libykc11-1.dll, libykpiv-1.dll, QsLog.dll.
  - Subdirectories: imageformats, platforms, styles, translations.



OptiTUIO Directory Binary Files List

### TIP

#### Best Practice for Production Shows

We strongly suggest running OptiTUIO.Server.exe during active event schedules or commercial installations. After finalizing calibration settings using the GUI tool (OptiTUIO.Calibration.exe), save your configuration .otxml file. Then, configure the server application to start automatically with that saved calibration file.

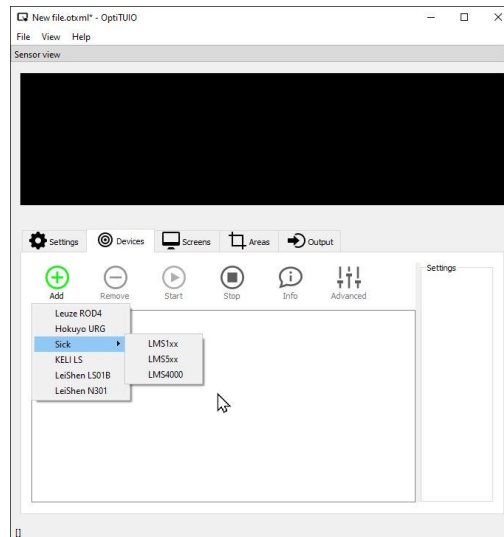
# Setup & Calibration Guide

Quick start workflow, network basics, ping tests, and step-by-step calibration guidelines.

## # Quick Start Workflow

Follow this step-by-step checklist to calibrate your surface:

1. **Hardware Hookup:** Connect your LiDAR sensor to your PC (Ethernet or USB depending on model). Ensure USB power is stable for USB sensors (like the OT-500).
2. **Launch Calibration Utility:** Open OptiTUIO.Calibration.exe.
3. **Hardware Selection:** Add your sensor under the Devices tab.
4. **Sensor Registration:** Select the sensor, click the Info button to view its unique serial number, and email it to [info@interactiveasia.com](mailto:info@interactiveasia.com) to receive your license key.
5. **Start Scanning:** Click Start under the Devices tab. If communication is successful, a blue scanning sweep is visible in the preview window.
6. **Define Surface:** Under the Screens tab, configure the target interactive screen dimensions.
7. **Screen Mapping:** Assign the created screen to the active sensor.
8. **Configure Output:** Under the Output tab, set up the preferred output protocol (TUIO, Mouse, or Windows Touch).



OptiTUIO Calibration: Adding a Sensor

### IMPORTANT

#### Crucial Step: Screen Assignment

Always assign the created screen to the device in the settings before expecting touch outputs. If the screen is not mapped to the active sensor, no touch events will be emitted by the software.

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## # Network Basics

Most professional sensors communicate via Ethernet. To establish a connection, the sensor and computer must be on the same local network subnet.

### **WARNING**

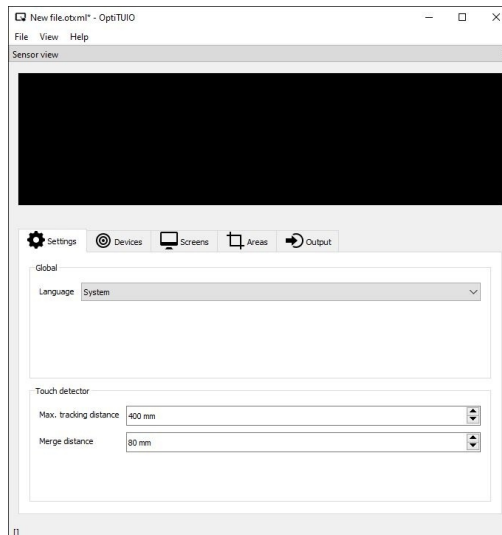
#### **Subnet Rule**

Ensure the host machine running OptiTUIO™ has an IP address within the same network range as the sensor.

- **Default Sensor IP:** By default, standard Hokuyo and KELI LS2 sensors are configured with the IP address 192.168.0.10.
- **Testing Connection (Ping Test):**
  1. Open a command prompt (cmd.exe) on Windows by pressing Win + R, typing cmd, and pressing enter.
  2. Type ping 192.168.0.10 (or the IP assigned to your sensor) and hit enter.
  3. If you receive responses, the hardware connection is correct and communication is functional.
  4. If the ping fails:
    - Check network adapters.
    - Ensure the computer's static IP is set correctly (e.g., 192.168.0.15, Subnet mask 255.255.255.0).
    - Ensure the sensor and PC are connected through a functional switch or network cable.

# Device Settings

Detailed parameter references for the Devices tab, sensor properties, and advanced signal filters.



OptiTUIO Calibration: Main Interface Settings Tab

## # Devices Tab Configuration

Once a sensor is added under the Devices tab in the configuration utility, settings are available in the properties panel on the right:

- **Name:** Assign a custom identifier to the sensor.
- **Connection:** Defaults to Network. If using a USB sensor (like the Hokuyo URG04 or OT-500), change this setting to Serial.
- **Offset X:** Moves the sensor origin coordinate left or right in millimeters.
- **Offset Y:** Moves the sensor origin coordinate up or down in millimeters.
- **Rotation:** Adjusts the sensor angular alignment (Z rotation) in degrees.
- **Kalman:** Controls the signal noise filter. This adjusts the maximum deviation of measured coordinates. It is recommended to use the default values.
- **Smoothing:** Adjusts interpolation. A higher smoothing value reduces input jitter but introduces noticeable latency.
- **Screen:** Assigns a previously created interactive screen template to this sensor.
- **Flip X/Y:** Flips coordinates along the X or Y axes depending on physical mounting orientations.

The screenshot shows a 'Settings' window with the following controls:

- Name:** Text input field containing 'New device'.
- Connection:** Dropdown menu set to 'Network'.
- IP Address:** Text input field containing '192.168.0.10'.
- Port:** Spin box set to '10940' with a checked checkbox next to it.
- Offset X:** Spin box set to '0 mm'.
- Offset Y:** Spin box set to '0 mm'.
- Rotation:** Spin box set to '0.00 °'.
- Kalman:** Slider control set to 50%.
- Smoothing:** Slider control set to 0%.
- Screen:** Dropdown menu.
- Flip:** Two checkboxes, 'X' and 'Y', both of which are currently unchecked.

OptiTUIO Device Settings Properties Panel

## # Advanced Settings

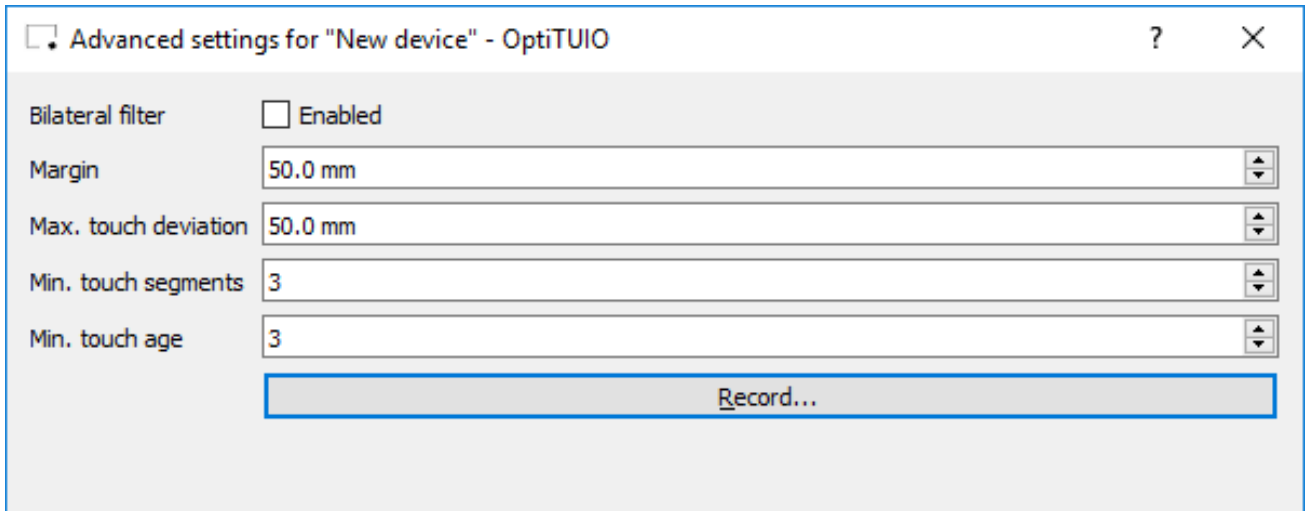
Advanced configurations can be accessed by clicking the Advanced button in the device control bar.

### WARNING

#### Advanced Settings Precaution

Modifying these settings can cause tracking failures or unexpected behaviors. For standard installations, we recommend leaving these parameters at their default values.

- **Bilateral Filter:** Reduces noise/errors detected very close to the sensor boundary. Disabled by default.
- **Margin:** Extends the active touch recognition area slightly beyond the boundary of the physical screen coordinates.
- **Max. Touch Deviation :** Specific threshold filter. Do not change this value.
- **Min. Touch Segments :** Specifies how many sensor detection rays must target a physical object before it is registered as an active touchpoint (Default is 3).
- **Min. Touch Age:** The duration (in frames) a touch point must persist before being transmitted to output receivers.
- **Record Option:** Used for support cases. Clicking Record saves raw data files of the tracking process. This file can be shared with Interactive Asia Co. Ltd. to troubleshoot tracking anomalies.



OptiTUIO Advanced Settings Configuration Panel

# Screens & Areas

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How to define active screen zones, toggle between rectangular and elliptical layouts, and configure exclusion areas.

## # Setup the Screen

The Screens tab defines the digital coordinates mapped to your physical display.

1. Go to the Screens tab and click Add.
2. Select your layout shape:
  - **Rectangular Layout:** Used for standard flat display walls, projections, and floors.
  - **Elliptical / Circular Layout:** Used for round interactive tables or custom curved installations.
3. Configure the dimensions:
  - **Size X (Width):** Width of the physical touch screen area in millimeters.
  - **Size Y (Height):** Height of the physical touch screen area in millimeters.
  - **Offset X / Y:** Distance of the screen boundary relative to the sensor origin in millimeters.

### IMPORTANT

#### Exact Measurements

To maintain high accuracy, measure the active area width and height precisely, and set these values to match the actual display surface size.

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## # Configurable Areas

The Areas tab is used to limit or filter where touch points are recognized.

- **Standard Setups:** In typical configurations, simply click the Fit to Screen button. This automatically defines the active scan zone as the interior of your screen coordinates.
- **Exclusion Zones:** If the sensor's scanning path intercepts physical structures (such as doors, structural pillars, or structural AV framing) that create constant ghost touches, you can draw custom excluding areas over those positions. Touch coordinates inside excluding zones are ignored.

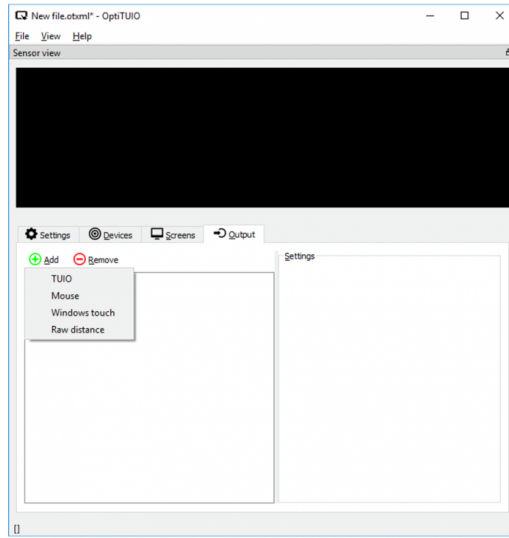
# Output Modes

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Configuring TUIO, Mouse emulation, Windows Touch, and OSC raw distance output modes.

## # Output Options

OptiTUIO™ translates physical coordinates into standard input protocols. Under the Output tab, click Add to configure your preferred mode:



OptiTUIO Calibration: Output Type Selection Dialog

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## 1. TUIO Output

TUIO (Tangible User Interface Object) is a standard protocol designed for transmitting multi-touch coordinates over network connections (UDP/OSC). Any client application supporting TUIO can read coordinates directly. Popular compatible platforms include Ventuz, Unity, VizRT, and Unreal Engine.

- **Name:** Custom label for the output.
- **Host:** The IP address of the system running the receiver application (default is localhost 127.0.0.1).
- **Port:** The network port used to transmit packets (default is 3333).
- **Screen:** Select whether to transmit coordinates from all active screens or a specific template.

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## 2. Mouse Emulation

Controls the host OS mouse cursor directly using touch coordinates.

- **Offset X/Y:** Add a manual pixel offset to the cursor location.

- **Size X / Y**: Screen width and height boundaries in pixels.
- **Screen**: Maps mouse movement to a specific display.
- **Mode Selection**:
- **Simple Mode**: Tracks the first detected touchpoint and immediately moves the mouse cursor to that position, triggering a left click.
- **Two-Click Mode**: Designed for two-handed control. The first touchpoint positions the cursor without triggering actions. A second touchpoint triggers a left click if placed to the left of the initial point, or a right click if placed to the right.

## WARNING

### Mouse Limitation Notice

Mouse emulation is limited to one active cursor. Operating systems cannot manage multiple independent mouse cursors natively.

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## 3. Windows Touch Output

Simulates native Windows multi-touch API inputs. This enables multi-touch gestures directly within the Windows OS and compatible applications (such as browsers or native presentation software).

- **Offset X / Y**: Pixel offsets.
- **Size X / Y**: Screen width and height boundaries in pixels.
- **Pressure**: Windows Touch API exposes pressure parameters. OptiTUIO™ does not measure pressure; if your application requires a value, specify a default mock value here.
- **Radius**: Custom coordinate touch radius.
- **Screen**: Map coordinates to a specific display.

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## 4. RAW Distance Output

An experimental output mode that transmits raw, uncalibrated distance measurements from the LiDAR sensor to a specified OSC address.

- **Host**: Target receiver IP (default 127.0.0.1).
- **Port**: Target network port (default 7000).
- **Address**: Custom OSC address path.

# Server Autostart

How to configure the OptiTUIO server application to launch automatically when Windows boots.

## # Automatically Running the Server

To ensure your interactive installation recovers automatically after power loss or system reboots, configure the lightweight OptiTUIO.Server.exe tool to start on Windows boot:

1. **Create a Shortcut:** Navigate to your extracted bin32 or bin64 directory, right-click OptiTUIO.Server.exe, and select Create shortcut.
2. **Configure Target File:** Right-click the newly created shortcut and select Properties. Under the Shortcut tab, locate the Target field and append the absolute path to your saved .otxml calibration file at the end of the command line.

- \*Example Target Path:\*

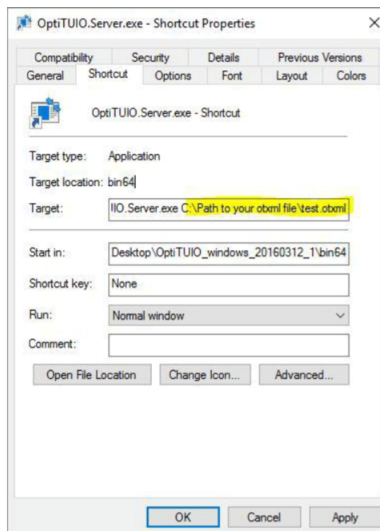
```
"C:\OptiTUIO\bin64\OptiTUIO.Server.exe" "C:\OptiTUIO\calibrations\display_setup.otxml"
```

3. **Move to Startup Folder:** Copy this shortcut file and paste it into the Windows system Startup directory:

- **System-wide Startup Path:**

C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Startup

- \*Note: Accessing the system Startup directory requires administrator privileges. Alternatively, access your user-specific startup folder by pressing Win + R, typing shell:startup, and pressing enter.\*



OptiTUIO Server Shortcut properties mapping

# Licensing Model

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How to register your software license, install offline keys, and use the online demo version.

## # Licensing Options

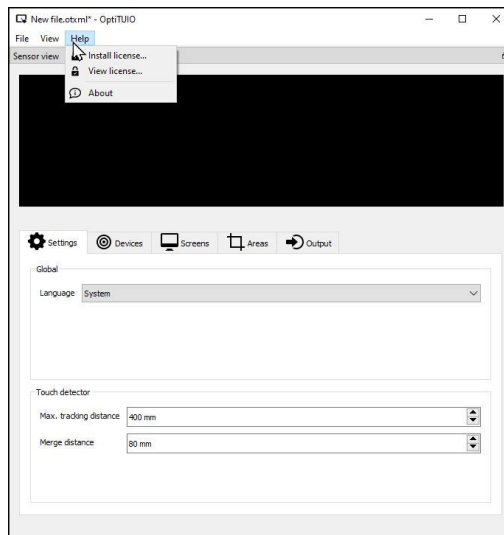
OptiTUIO™ offers two licensing paths:

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### 1. Commercial / Offline Device License

The commercial license is a perpetual software key bound to the unique serial number of your LiDAR sensor.

- **Portability:** Because the license is locked to the sensor hardware itself, the host PC running OptiTUIO™ can be replaced or updated without losing the license configuration.
- **Multi-Sensor Keys:** In installations with multiple sensors, multiple device profiles can be compiled into a single combined license file.
- **Installation:**
  1. Retrieve your hardware serial number by clicking the Info button in the Devices tab of the calibration tool.
  2. Send this serial number to [info@interactiveasia.com](mailto:info@interactiveasia.com) to receive your license key.
  3. Load the received license file by navigating to Help -> Install license in the menu bar.



OptiTUIO Help Menu: Installing a Soft License

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### 2. Online Demo License

We provide a temporary online demo license for testing and calibration validation.

- **Validity:** The demo license remains active for a maximum duration of 24 hours per request.
- **Requirements:** The machine running OptiTUIO™ must have a constant, active internet connection to validate the key online.

## **WARNING**

### **Demo License Limitation**

The demo license is not for commercial use. It is provided for evaluation and testing purposes only.

# Troubleshooting FAQ

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Resolving runtime errors, application startup failures, network drops, and software resets.

# Frequently Asked Questions

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## OptiUIO™ is not starting at all

- **Root Cause:** The required Microsoft Visual C++ redistributable package is missing.
  - **Resolution:** Install the runtime by running vcredist\_x64.exe located directly in the bin32 or bin64 directories of your extracted folder. If you still encounter failures, download the latest Visual C++ redistributable from the official Microsoft site.
- 

## OptiUIO™ is not starting the User Interface (GUI)

- **Root Cause:** A corrupted license file or caching issue.
  - **Resolution:**
    1. Open Windows File Explorer.
    2. Navigate to your app data folder by typing %APPDATA%\OptiUIO in the navigation path (this resolves to C:\Users\\AppData\Roaming\OptiUIO).
    3. Delete the file named license.otlic.
    4. Restart the calibration tool.
    5. Re-import your valid license file under Help -> Install license.
- 

## No touch points are detected

- **Checklist:**
    1. Confirm your sensor status displays as active (green indicator) and scans are showing up as a blue area in the preview window.
    2. Verify that a screen has been created under the Screens tab.
    3. Ensure the screen has been assigned to the active device under the Devices tab.
    4. Confirm that an active output receiver (UIO, Mouse, or Touch) is set up under the Output tab and mapped to the screen.
- 

## Technical Support Contact

If you have confirmed connection configurations and still experience anomalies, contact our technical support:

- **Support Email:** [optituiio@interactive-asia.com](mailto:optituiio@interactive-asia.com)

# OT-500 / LDROBOT LD06

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USB connectivity constraints, UART drivers, and hardware setup rules specific to the OT-500 bundle.

## # OT-500 Bundle Overview

The OT-500 is a compact interactive surface bundle designed for short-range applications (e.g., tables or display screens up to 5 meters tracking range). It incorporates the LDROBOT LD06 sensor.

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## # Connectivity & Range Constraints

Unlike other professional LiDAR units that communicate over network Ethernet protocols, the OT-500 utilizes a USB connection.

- **USB Cable Limits:** USB connections are sensitive to cable length. Standard USB extension cables may experience signal drops.
  - **Maximum Distance:** You can achieve a connection distance of 3 to 5 meters between the sensor and the host computer by using high-end, active USB extension cables.
- 

## # UART Controller Board

The LDROBOT LD06 sensor is mounted to a small UART interface board, which facilitates communication and supplies operating power directly from the PC's USB port.

- **Serial Number Identification:** The UART controller board has a unique hardware serial number. Once connected via USB, this serial number is automatically recognized by the OptiTUIO™ configuration menu.
- **Driver Requirements:** If the PC does not recognize the device when plugged in, you must install the proper driver:
- **Driver Download:** CP210x USB to UART Bridge VCP Drivers (or the specific driver provided with your installation resources).
- **Sensor Activation:** In the Devices configuration window, select your device, set the connection type to Serial, and choose the recognized serial port/com number from the dropdown menu to initialize the scanner.

### **WARNING**

#### **Support Restriction**

Technical support for the OT-500 bundle and LDROBOT LD06 integrations is provided exclusively for hardware bought directly from Interactive Asia Co. Ltd.

# Application Integration

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Guidelines for configuring receiver applications, including Unreal Engine mouse and touch event mappings.

## # Application Specific Setup

Once OptiTUIO™ is translating LiDAR coordinates, you must configure your application to listen for these inputs. Below is the setup guide for common development environments:

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## # Unreal Engine Integration

In Unreal Engine, developers can receive tracking inputs via either Mouse emulation or Windows Touch emulation:

- **Mouse Control:**
  - Set OptiTUIO™ output mode to Mouse.
  - Within your Unreal blueprints or C++ scripts, handle movements using standard Mouse Button Events (such as Left Mouse Button down/up and cursor coordinate changes).
- **Windows Touch Control:**
  - Set OptiTUIO™ output mode to Windows Touch.
  - Within your Unreal project, activate touch support.
  - Listen for native Touch Events (such as Touch 1 ... Touch X index states, and the InputTouch event node). This allows processing of multi-point inputs simultaneously.

# Manual Changelog

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Changelog and manual publication history.

# Document Revision History

This section lists the publication dates and version tracking details for the OptiUIO Manual:

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## Version: 20251014\_V1-5-0\_Beta\_4

- **Publication Date:** 19th June 2026
  - **Changes:**
    - Updated supported sensor list (added LDROBOT LD06 and KELI LS2 specific notes).
    - Added CP210x driver reference links for OT-500 USB serial conversion.
    - Added Bilateral filtering parameters in Advanced Settings.
    - Added Unreal Engine input integration details.
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## Version: 1.2.3 (Legacy macOS)

- **Status:** Legacy Release
- **Changes:**
  - Last version supporting macOS operating systems. Future releases are restricted to Windows platforms.