



Pilot 3

User's Manual

Warranty

Pilots have a standard 1-year warranty. This warranty can be upgraded to 3-year or 5-year. To purchase an extended warranty, please contact your authorized HoverCam reseller.

Content

Welcome		3
Diagram		4
Getting Started		6
Connecting to Power	Imaging	
Powering-On	Built-In PC	
Power Save Modes	Activating Windows 10	
Setting-Up		8
Adjusting the Pilot	Installing the Side Tray	
Operating the Pilot		9
Built-In Touchscreen	Digital Keyboard and Trackpad	
Digital Keyboard and Trackpad	Third Party Accessories	
Connecting to a Display		11
Wireless via HoverCast	Wired via HDMI	
HoverCast Set-Up	Display Mode	
Audio		14
Built-In Speakers	Auxiliary	
Output Display Speakers	Bluetooth	
HDMI Audio De-Embedder	Audio-In / Microphone	
Interfacing with Other Devices		16
HDMI / Lightning Port	Wireless via Reflector	
Document Camera		18
Adjusting the Camera	Operating the Camera	
Software		19
Flex 11 Camera Software	Knotester Classroom Management	
Troubleshooting		20
Service and Support		22

Congratulations! With the Pilot, you've taken a major step in revolutionizing your classroom. Designed by educational technology professionals in California, the Pilot allows you to operate your computer, classroom display and document camera without turning your back to the class.

Main Features:

- Wirelessly connect to any display via HoverCast
- Wirelessly cast bi-directional annotations between USB-touch enabled displays
- Capture stunning visuals with included 4K Solo 8Plus document camera
- Record and upload lessons with included Flex 11 and KnoteSter software
- Interface with iOS, Android, Chromebook, Mac, PC and more

What's in the Box:

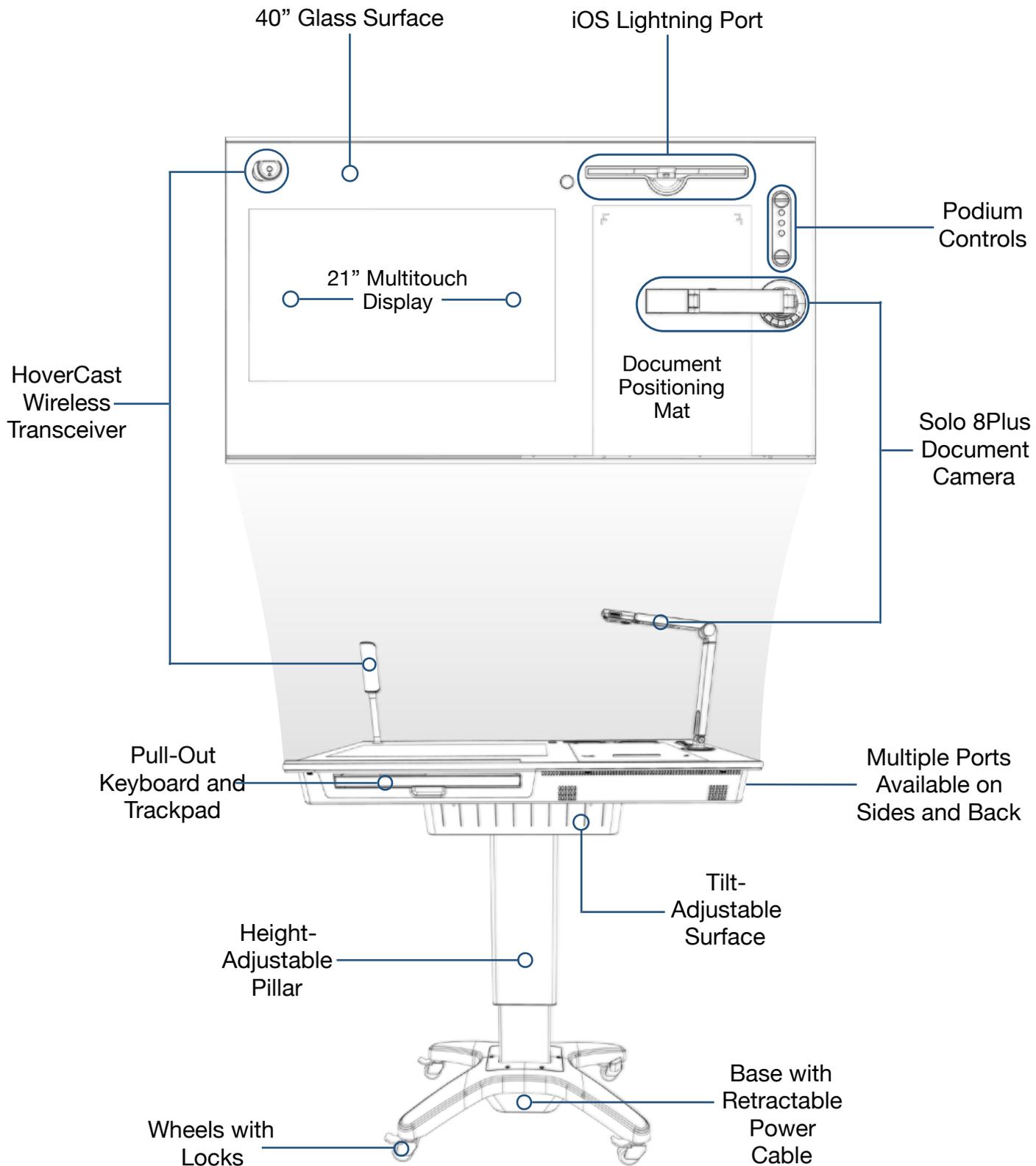
- Pilot podium
- Accessory tray with mounting hardware and two hex keys for installation
- HoverCast transceiver
- HoverCast AC power supply (9V 2A), HDMI cable, USB cable.
- USB flash-drive with Pilot drivers

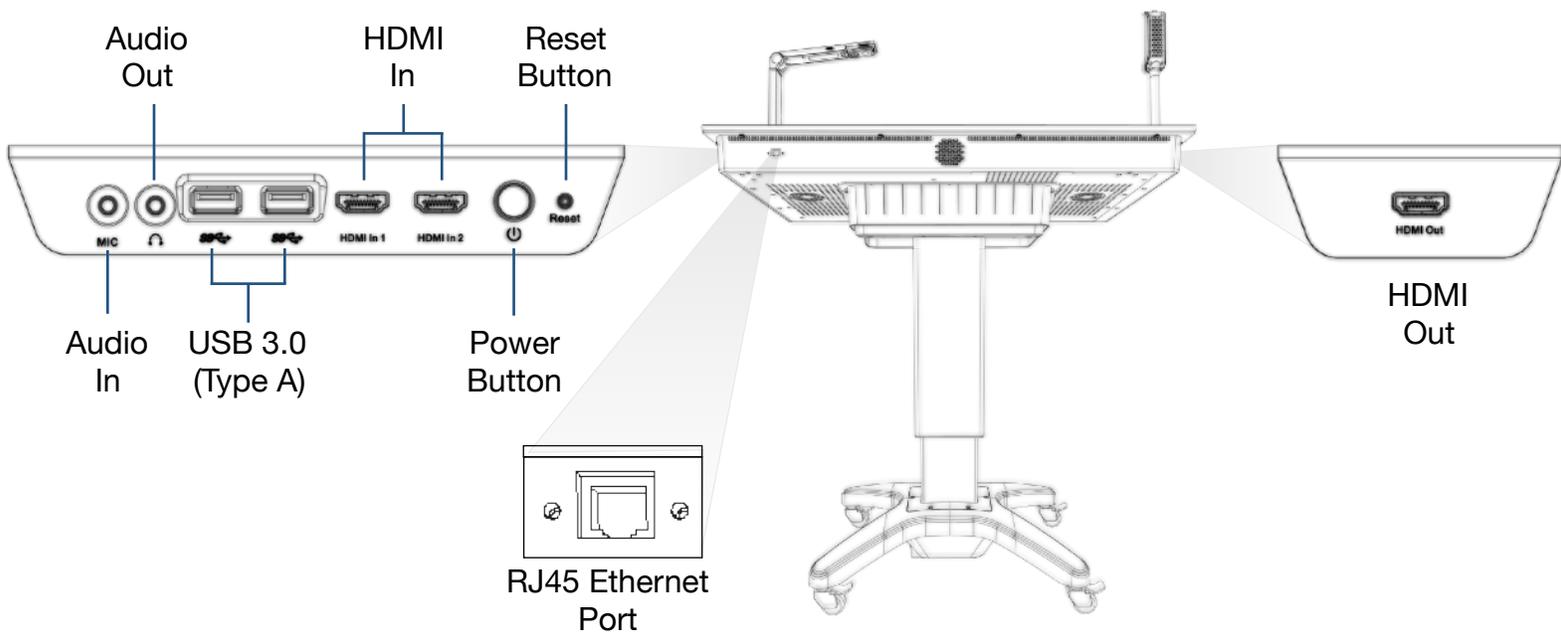
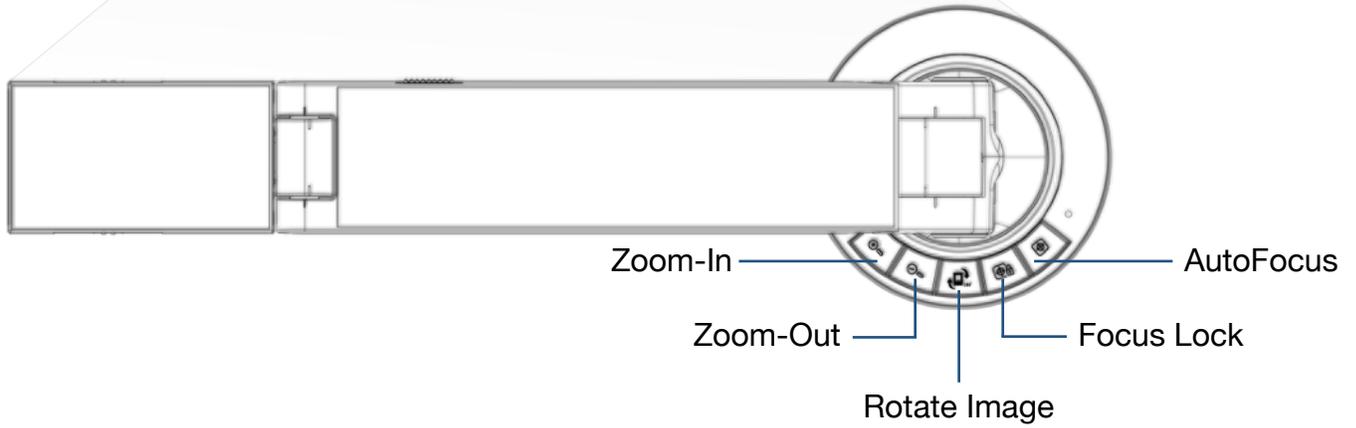
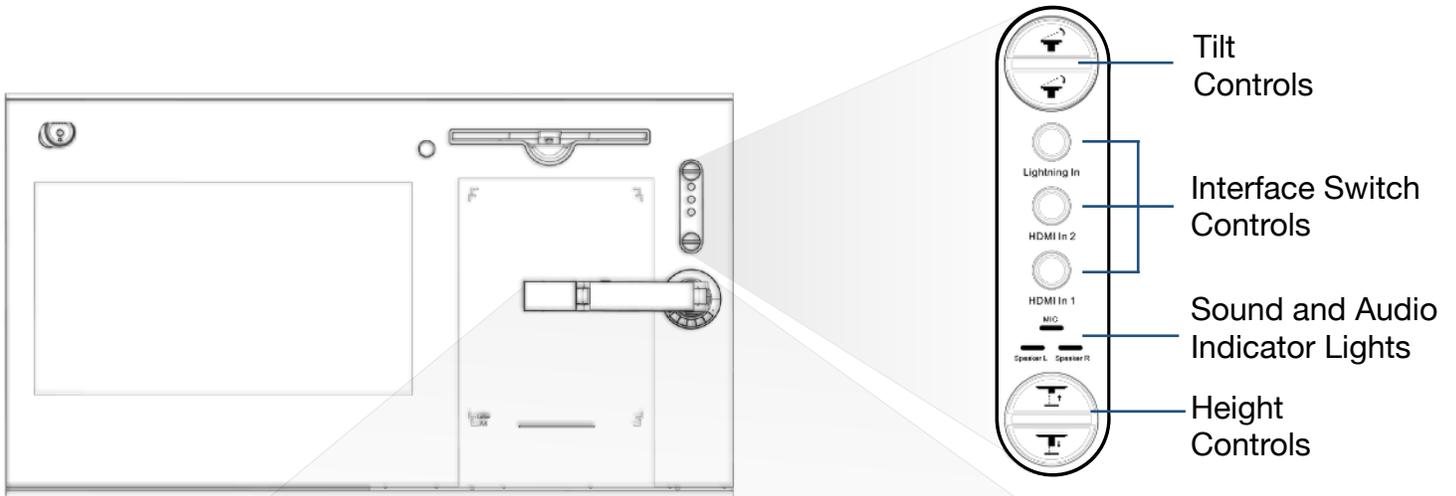
Have any questions, feedback or issues? Contact HoverCam Support
(866)-201-2056 | support@hovercam.com



9985 Pacific Heights Blvd, #100
San Diego, California 92121
www.hovercam.com
+1 (858) 750-3499

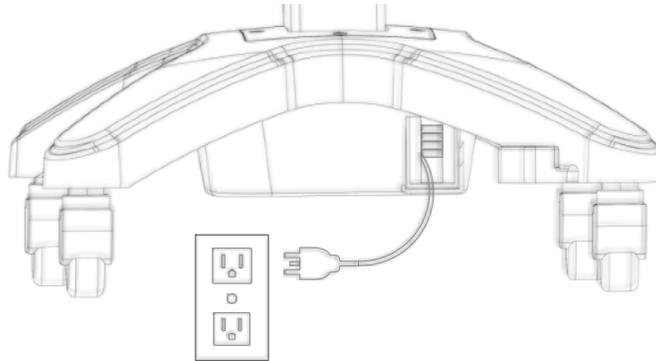
PAGE INTENTIONALLY LEFT BLANK





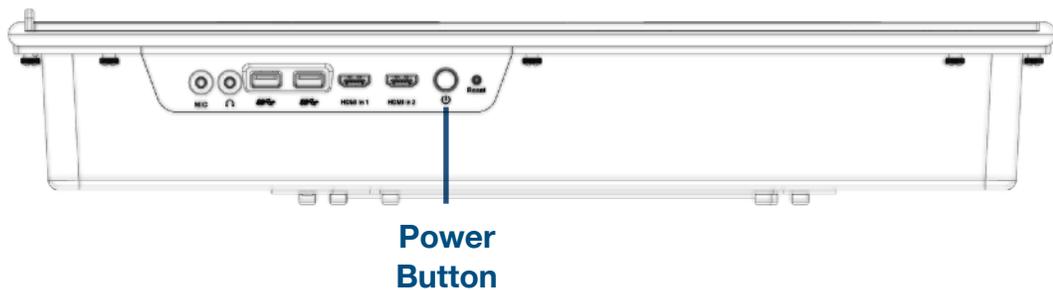
Connecting to Power

To get started, find the **retractable power cable** (AC100-240V 50/60Hz) on the right side of the base and plug it into an available AC Power Outlet with ground. If you'd like to retract the power cable, carefully extend it to its maximum length (16 feet) and release it. The reel-tension system should automatically wind the cable back into the base for easy storage and transportation.



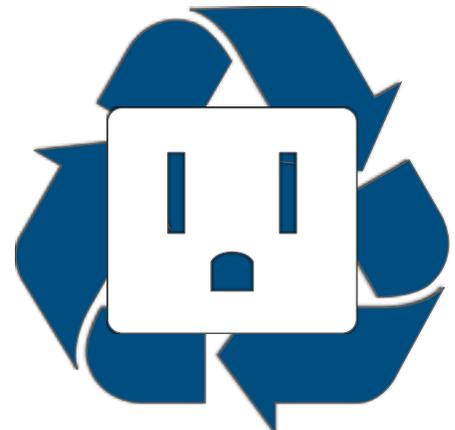
Powering - On

Next, press and hold the **power button** on located on right side of the device until the Pilot “beeps”, signaling the start of the boot-up process. **Boot-up** typically takes around minute, but can vary across models and usage.



Power Save / Sleep Modes

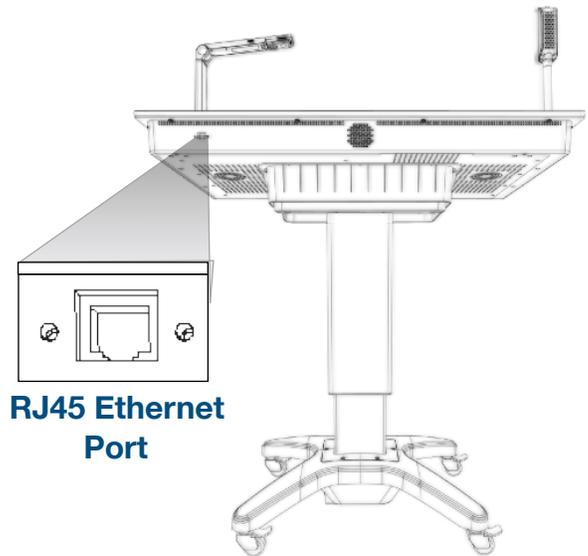
If left idle, the Pilot will automatically enter **power save mode**. To return your system from power save mode, touch anywhere on the touch screen or press any key on the keyboard. If left in power save mode for an extended period, your Pilot will enter **sleep mode**. To exit sleep mode, press the power button on the right side of the touch screen module.



Imaging

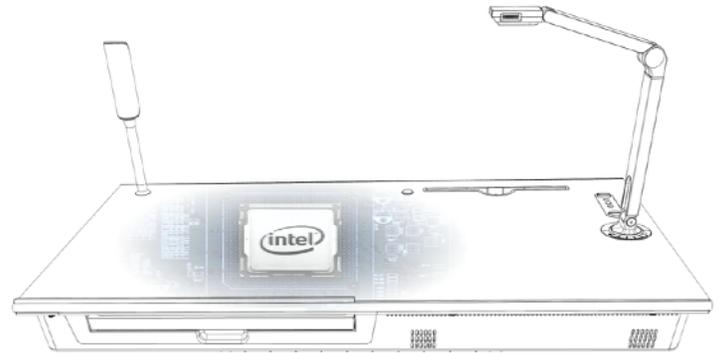
The Pilot includes a **RJ45 ethernet port** to simplify imaging and facilitate wired networking. For detailed instructions as well as the necessary drivers, please email us at: support@thehovercam.com

For convenience, the Pilot's required **drivers** are saved on an included **flash-drive** for reinstallation after imaging.



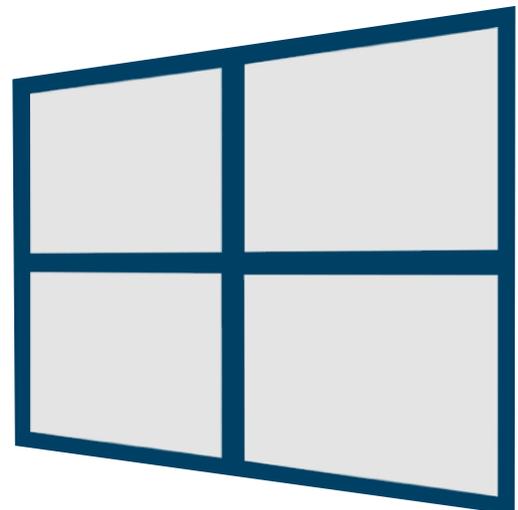
Built-In PC

The Pilot features a fully-functional self-contained PC, including an Intel i5 processor (or an Intel i7 processor with the Pilot Plus), a 500GB HDD (and an additional 128GB SSD with the Pilot Plus), WiFi and bluetooth connectivity, and other standard PC features. An additional computer is not required to operate the Pilot.



Activating Windows 10

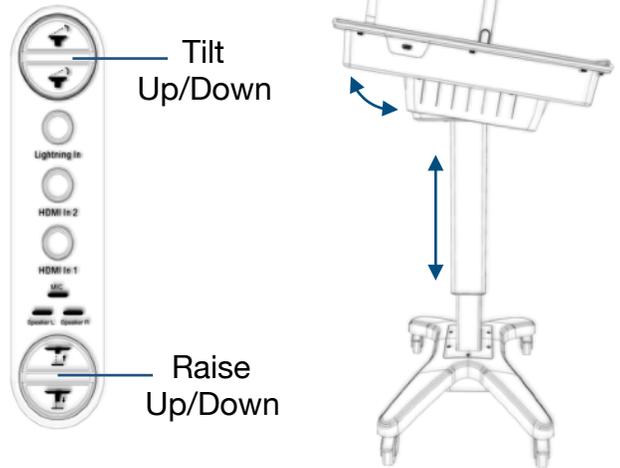
Once powered-on, your Pilot will operate the latest trial-version of Windows 10. Essential functions, settings, operations and commands are comparable to that of a new Windows-operating desktop including interface and system presets. A Windows license is not included, so a **license key** will be needed to access the full capabilities. For more information on how to use your Windows 10 operating system, see the full manual at www.windows10-guide.com



Adjusting the Pilot

The Pilot is easily height and tilt adjustable via the podium control panel (located on the upper-right corner of the podium surface). The podium can go from a minimum height of 28in to a maximum height of 40in. The surface can tilt from 0° (flat) to 30° (tilted).

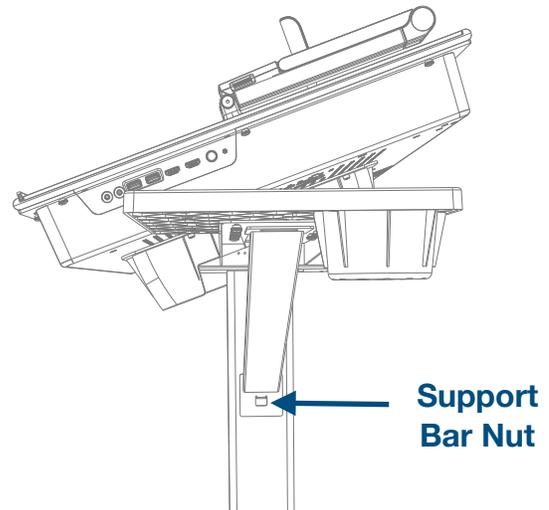
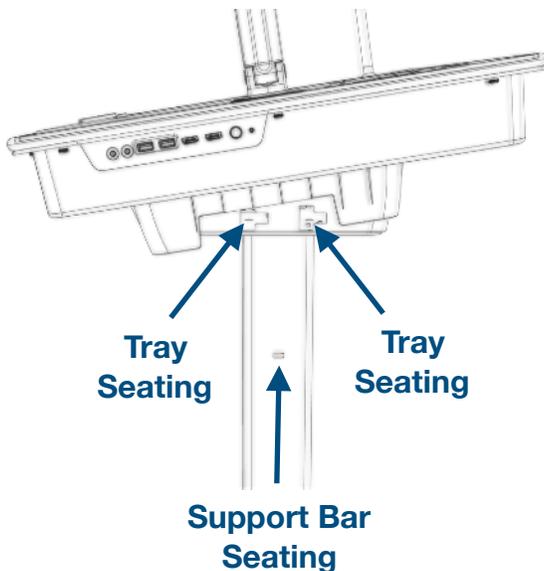
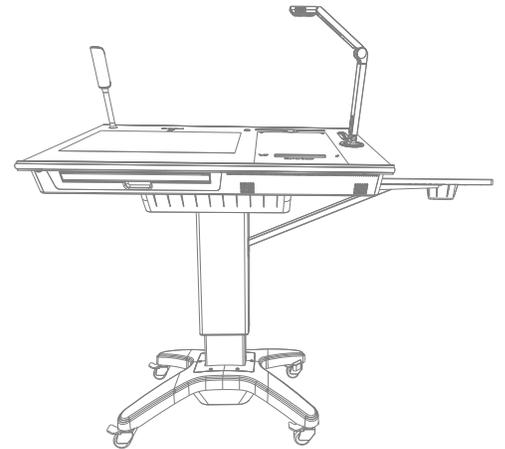
The Podium's adjustability is compliant with the ADA wheelchair accessibility standards.



Installing the Side Tray

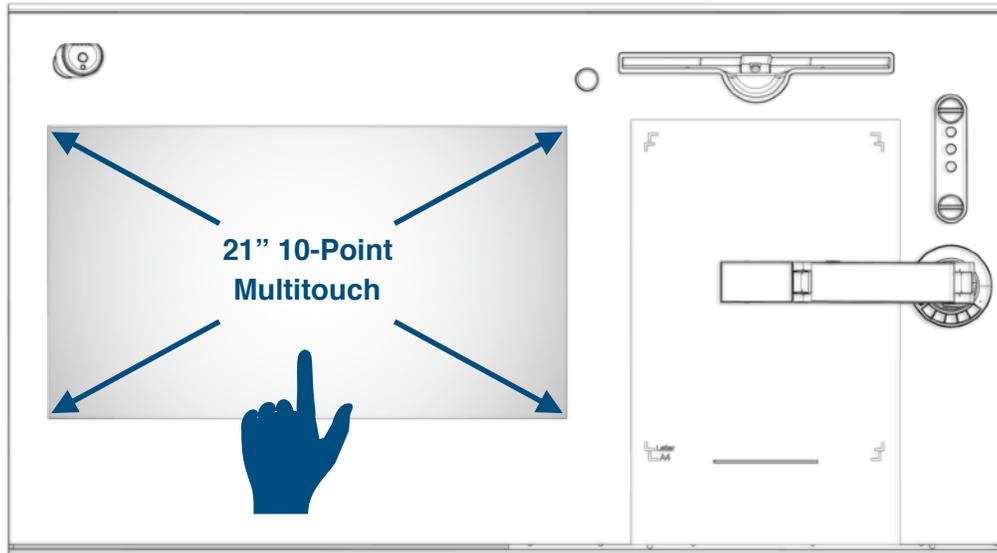
For added convenience, the Pilot includes an attachable side tray for additional desk real-estate. The tray is sturdy enough to support a laptop, and can be positioned right next to the HDMI inputs for simple interfacing.

Before installation, make sure the Pilot is in flat mode. To install, simply guide the tray into the two seating holes on either side of the Pilot, and slide to the right until it locks in place. Next, insert the support bar into the two support bar seating holes, and fasten it with the included support bar key and nut.



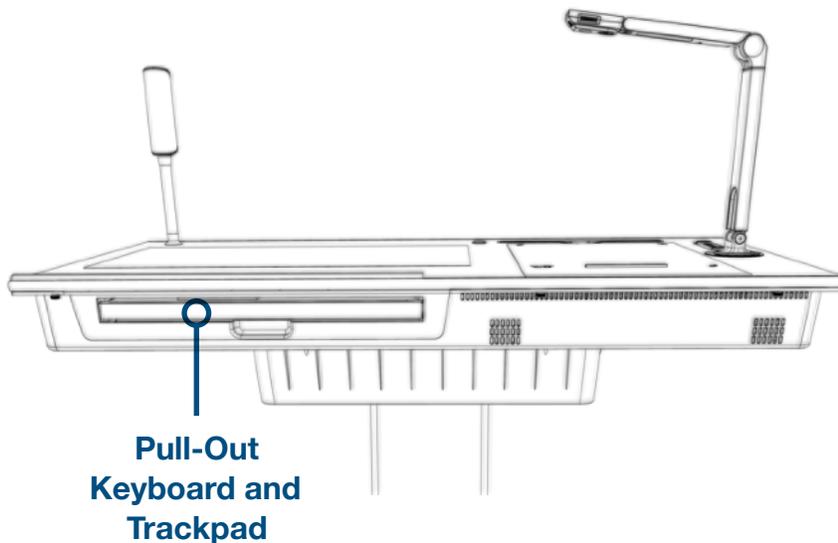
Built-In Touchscreen

The Pilot's primary means of operation is the built-in touchscreen. The touchscreen can accommodate up to 10 points of simultaneous touch, as well as two-finger scroll, pitch and rotation gestures. To access the "left-click" feature, simply press and hold on the item, object or area.



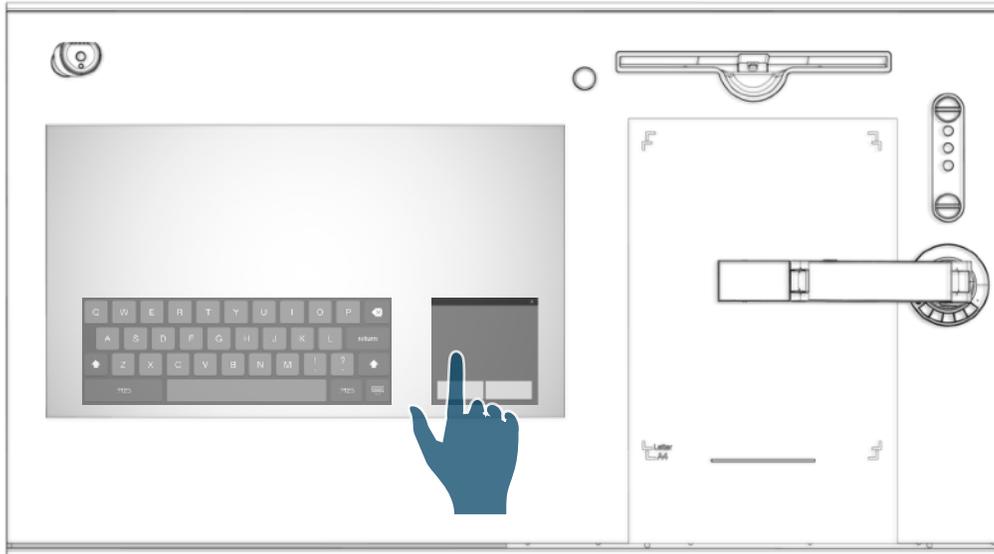
Built-In Keyboard and Trackpad

The Pilot includes a physical keyboard and trackpad. To access the keyboard and trackpad, locate the slide-out tray on the front-side of the unit, and pull out to use.



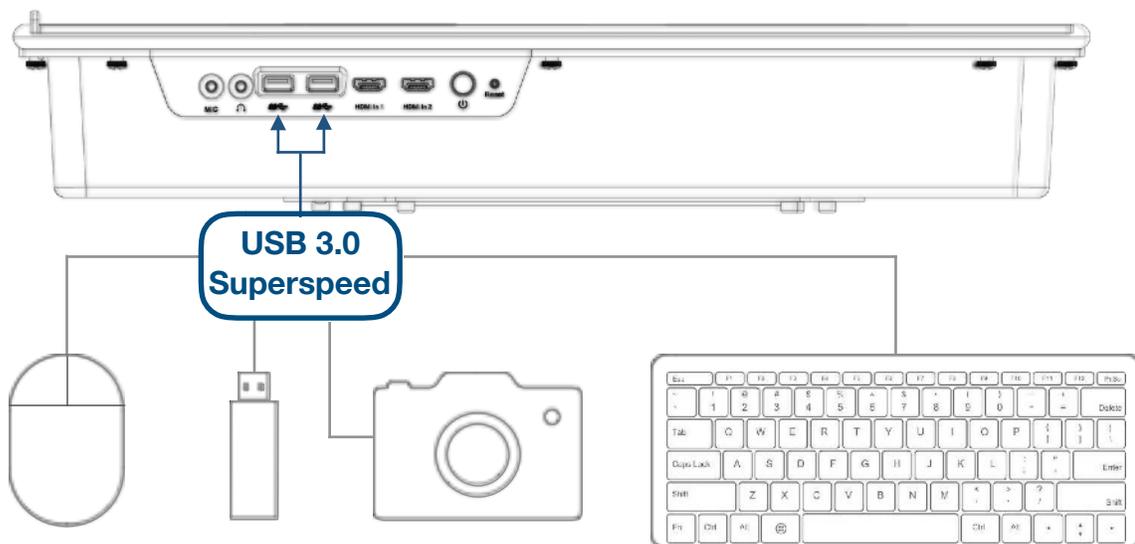
Digital Keyboard and Trackpad

The latest version of Windows features a digital keyboard and trackpad that can be used with the Pilot's built-in touchscreen. For detailed information on how to access these features, visit the Windows 10 guide at www.windows10-guide.com



Third Party Accessories

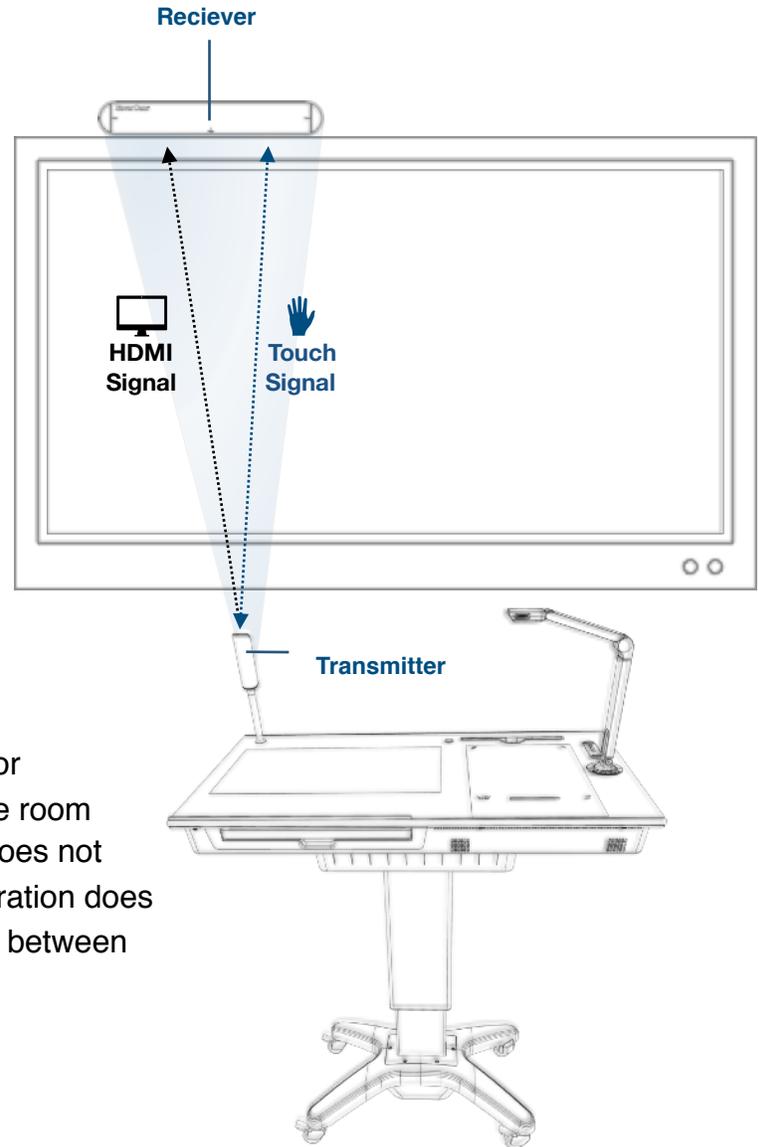
Most USB third party accessories that work with standard PC's will work with the Pilot. This includes mice, keyboards, flash-drives, etc. Simply plug the accessory into one of the USB ports located on the right side of the pilot. For help connecting **bluetooth** enabled devices, visit the Windows 10 guide at www.windows10-guide.com



Wireless via HoverCast

The Pilot comes equipped with a wireless HDMI transceiver set called **HoverCast**. Using HoverCast, the Pilot casts wirelessly to any interactive flat panel, projector or other **output display** with an HDMI input. When used with a **Touch-USB** enabled display (most interactive flat panels), the HoverCast additionally sends a bi-directional touch signal allowing the user to operate the Pilot's computer from the display. The HoverCast is composed of two main components: the **Transmitter** (installed on the Pilot) and the **Receiver** (to be plugged into the intended display).

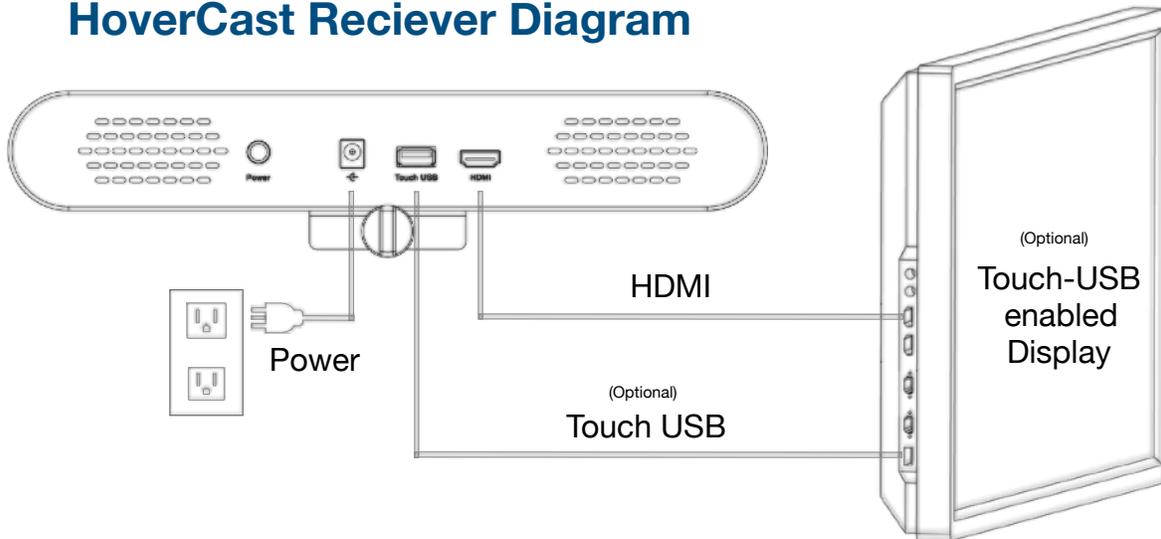
The HoverCast transceivers are one-to-one factory-paired from transmitter to receiver, so it is possible for multiple HoverCast signals to be present in the same room with minimal interference. Because the HoverCast does not require a WiFi signal to function, wireless HDMI operation does not affect internet bandwidth. The ideal tested range between the HoverCast transceivers is 30 feet.



HoverCast Set-Up

- 1) Affix the Receiver:** To begin HoverCast set-up, start by securing the receiver to the top or side of the intended display with the attached screw fastener. The receiver can also be placed next to a projector, in a control room, or wherever the desired HDMI input is located. The receiver must be within line of sight and the minimum tested range of the transmitting Pilot.
- 2) Power the Receiver:** Next, use the included power adapter to connect the HoverCast receiver to a power outlet. When properly powered, the receiver will display a single red solid light.
- 3) Connect HDMI:** Once the receiver is powered, connect it to the intended display using the included HDMI cable. Make sure the display's input settings are set to the proper HDMI input.
- 4) Connect Touch-USB (optional):** If you are using a Touch-USB enabled display, connect it to the HoverCast receiver via the included USB cable. If your Touch-USB display has multiple Touch-USB inputs, make sure you use the input numbered to match the HDMI input you are using. (Example: If you are using the *HDMI 2* input, also use the *Touch-USB 2* input).

HoverCast Reciever Diagram



5) Turn-On the Receiver. With the paired Pilot powered-on and within range, press the power button on the back of the HoverCast receiver. While connecting, the receiver’s **status indicator light** will flash blue behind the corresponding connection. The following light actions indicate the unit’s pairing status:



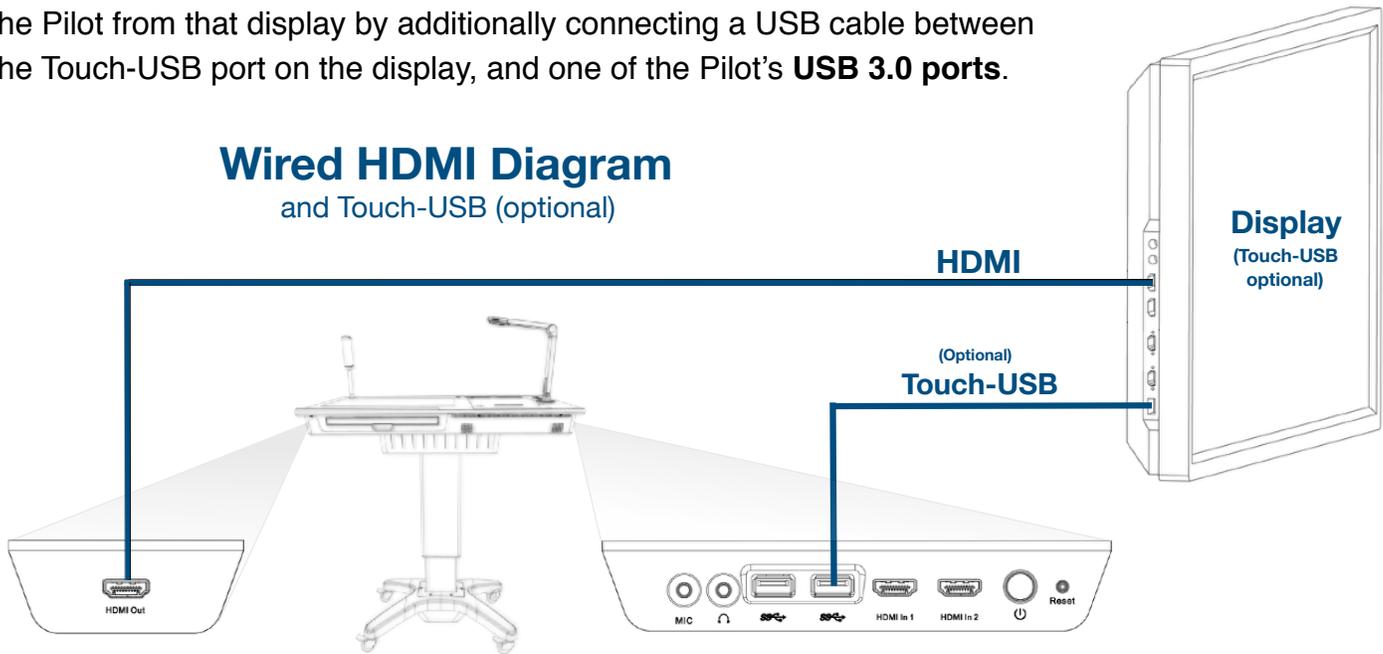
HDMI Indicator	Touch Indicator	
"HDMI" "HDMI" "HDMI"	"Touch" "Touch" "Touch"	Rapid Flashes - HoverCast is searching for a unit to pair. Ensure the Pilot is powered on and has Bluetooth enabled. Under the "Add a Bluetooth Device" option, select "CS-MTouch" and initiate pairing.
"HDMI" (solid)	"Touch" (solid)	Solid Indicator Light - The connection is established and communicating with the output device.
"HDMI" *long pause* "HDMI" *long pause* "HDMI"	"Touch" *long pause* "Touch" *long pause* "Touch"	Short Flash, Long Off - The HoverCast is paired but cannot detect the known PC signal. The known PC is likely off or has Bluetooth disabled. Turn on Bluetooth to successfully connect the units.
"HDMI" *short pause* "HDMI" *short pause* "HDMI"	"Touch" *short pause* "Touch" *short pause* "Touch"	Long Flash, Short Off - The HoverCast is paired and connected to the PC, but there is an issue connecting USB touch to the current input state of the output device. To stabilize, make sure the output device is on the correct HDMI channel and all cables are properly connected to the HoverCast and output device. If the HDMI connection is processing, the HDMI icon will illuminate. If the USB touch is processing, the Touch icon will illuminate.

Wired via HDMI

The Pilot can also output to an external display using an HDMI cable. Simply connect the display to the Pilot's **HDMI-Out** on the left side of the Pilot with an HDCP-compatible HDMI cable.

If you are using a **Touch-USB** enabled interactive display, you can control the Pilot from that display by additionally connecting a USB cable between the Touch-USB port on the display, and one of the Pilot's **USB 3.0 ports**.

Wired HDMI Diagram and Touch-USB (optional)

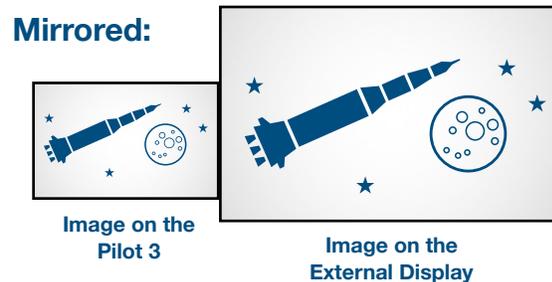
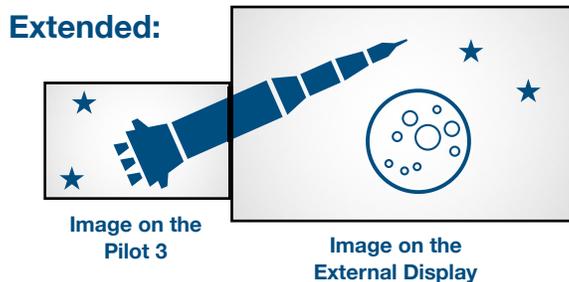


Display Mode

The Pilot's default output display mode is "**Extended Display**". In Extended Display mode, the external display acts as an extension to the Pilot's main display, showing only the windows placed in the extended area. This area can be oriented to the right, left, top, or bottom of the Pilot's main display area.

You can easily switch to "**Mirrored Display**" mode, in which the external display will show the exact mirror image of what appears on the Pilot's screen. To set the Pilot to Mirrored Display mode, switch the display preferences in the Windows display settings menu.

For detailed instructions on switching display modes, consult the Windows 10 manual: www.windows10-guide.com

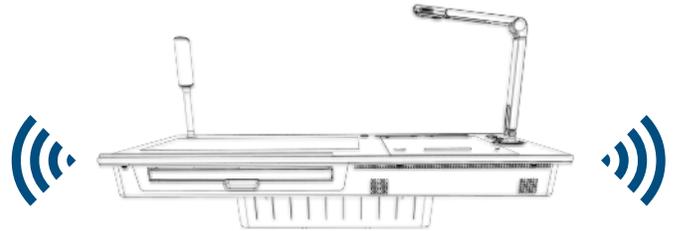


Audio-Out Set-Up

There are several options available for outputting audio from the Pilot:

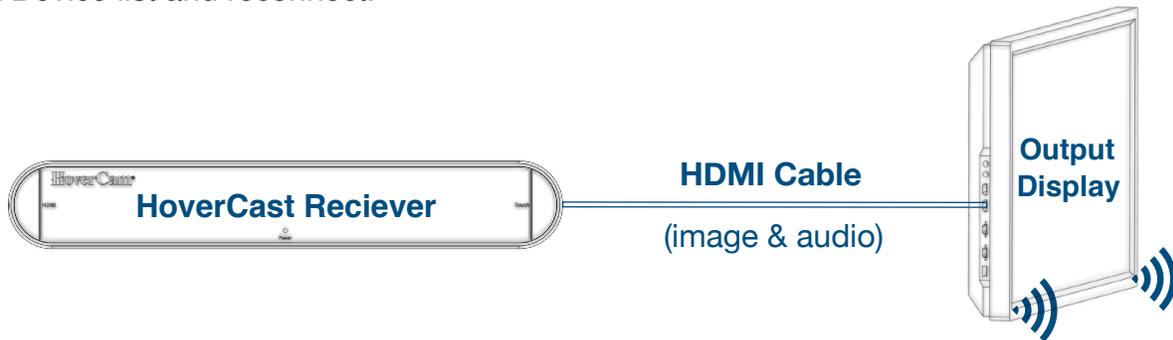
1. Built-In Speakers

By default, the Pilot outputs audio through its internal speakers. In the Windows playback device list, the Pilot's internal speakers should be listed as "Realtek High Definition Audio."



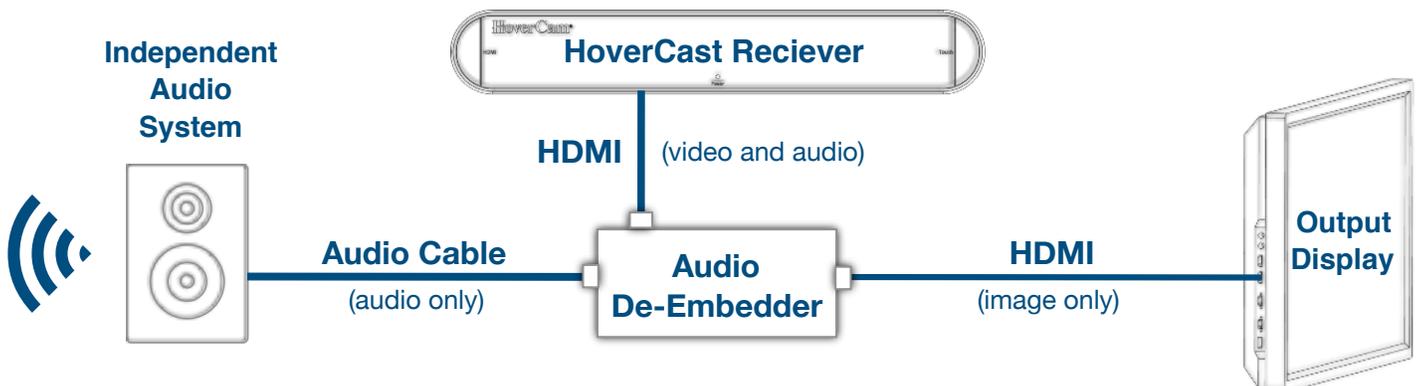
2. Output Display's Speakers

When using HoverCast or the HDMI-Out to connect to an external display with speakers, audio can output through the external display's speakers. In the Windows playback device list, the HoverCast's audio output should be listed as "MStar Demo". If MStar Demo does not appear in the list of Playback Devices, unplug the HoverCast receiver from its current HDMI port and re-plug into another. Refresh the Playback Device list and reconnect.



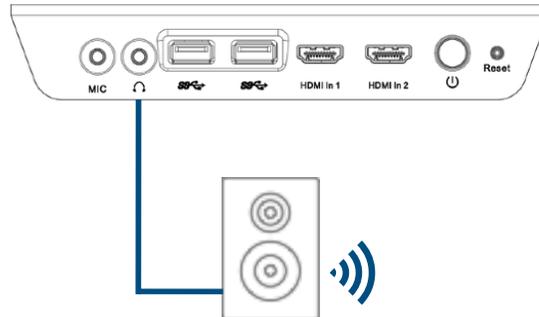
3. HDMI Audio De-Embedder (not included)

For use with a separate audio system, the audio signal can be separated from the HDMI signal by using an HDMI de-embedder and connecting it to HDMI-Out on the HoverCast or Pilot. This is usefully when using an audio system separate from the display. Many flat panel displays contain an HDMI de-embedder internally, so the panel's 3.5mm audio-out can be used to send a separate signal.



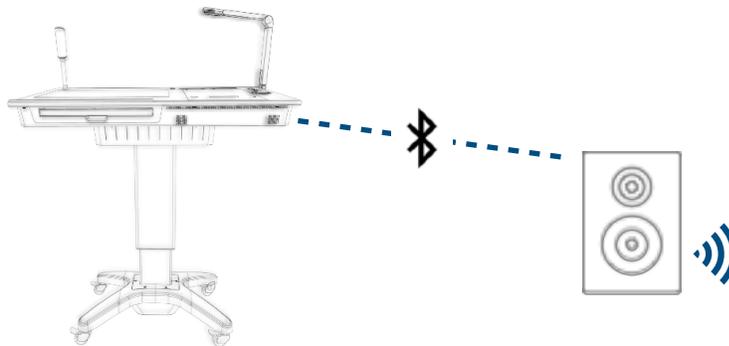
4. Auxiliary Audio-Out 3.5mm (wired)

The Pilot features a 3.5mm audio-out that can be found on the right side of the podium. Simply connect the Pilot to an external audio system with a 3.5mm auxiliary cable or adapter.



5. Bluetooth

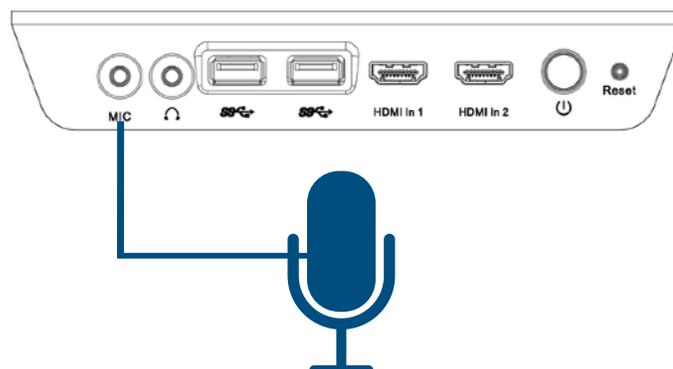
The Pilot's internal PC contains a Bluetooth module that can output wirelessly to a wide variety of Bluetooth audio devices. Consult the Windows 10 manual to learn more about connecting and configuring Bluetooth audio devices: www.windows10-guide.com



Audio-In Set-Up

The built-in Solo 8Plus Document Camera includes an internal microphone, which is the default audio-in. An external microphone can be connected via the **auxiliary-in** located on the right side of the podium, or via **Bluetooth**.

For detailed instructions on connecting and switching to external microphones and other audio-inputs, refer to the full Windows manual: www.windows10-guide.com



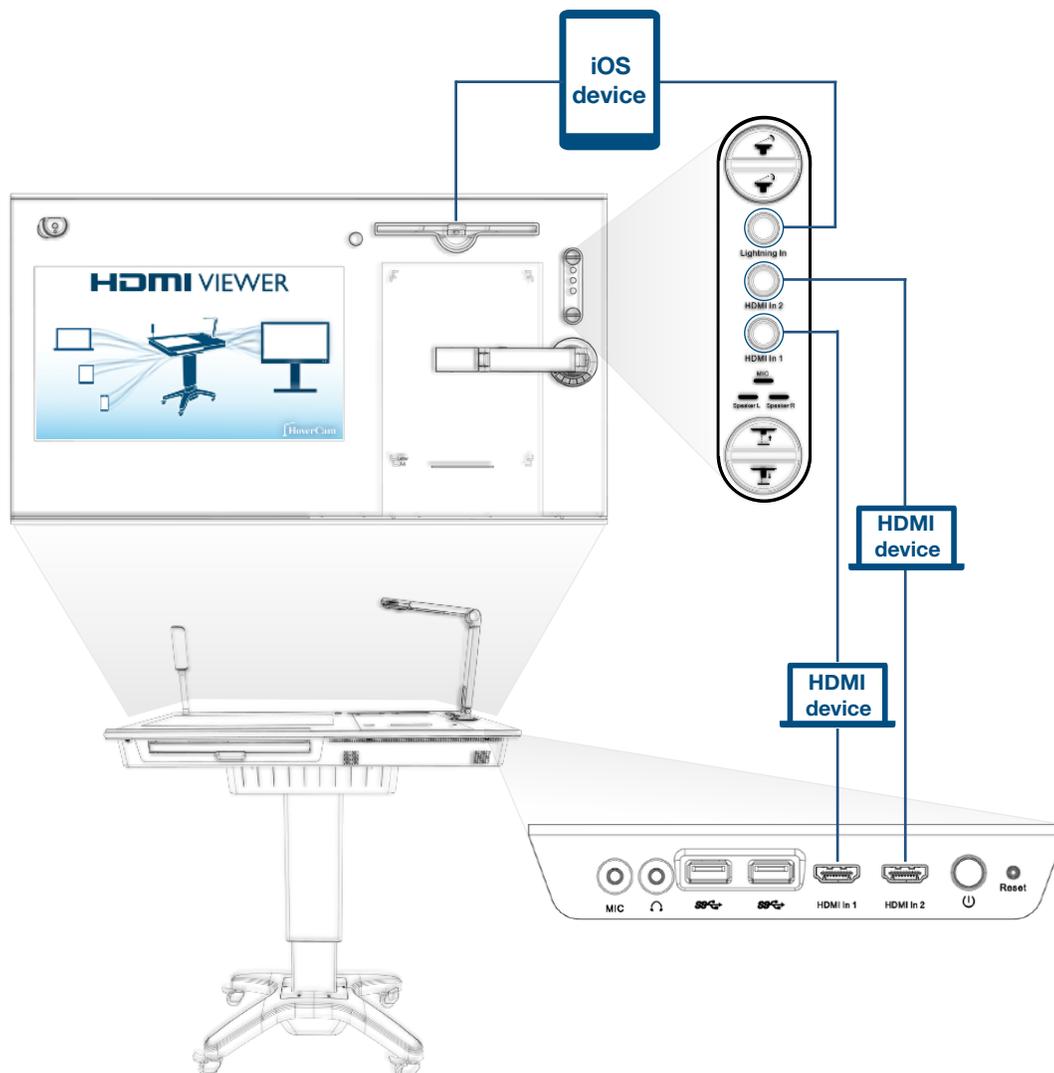
The Pilot can easily act as an output display and annotation tool for external devices such as laptops, tablets, phones and other devices with HDMI-output or internet access. There are two primary interfacing methods that are preloaded on the Pilot:

1. Wired through the **HDMI Viewer** program. This is a solution for iOS devices (with Lightning ports) or devices that have an HDMI output.
2. Wireless through the **Reflector 2** program. This is a solution for mobile devices or web-enabled devices without an HDMI-out.

HDMI Viewer - Wired

First, connect your device to the Pilot via an HDMI cable into one of the two HDMI-In ports on the right side of the podium. If you're using an iOS device with a lightning connector, insert it into the iOS dock in the upper-right hand corner of the podium surface.

Once your device is connected, select the corresponding input using the podium control panel that's next to the iOS dock. If you have multiple devices connected across the three inputs, you can easily switch between them using the podium controls.





Now that your device is connected and the proper input is selected, open the **HDMI Viewer** program. From the factory, HDMI Viewer can be found on the desktop. If the Pilot does not have HDMI Viewer installed, it can be downloaded for free on the HoverCam website:

<http://www.thehovercam.com/download/hdmi-viewer/>

With HDMI Viewer, users can mirror, annotate and record live content from their connected device(s). For detailed HDMI Viewer instructions, refer to the Flex 11 Manual (HDMI Viewer utilizes the same interface and functionality as Flex 11).

Reflector - Wireless



Users can also use their mobile devices to screen share onto the Pilot using the Reflector program. From the factory, the Reflector program can be found on the Pilot's desktop. If the program is missing, please contact HoverCam support:

support@hovercam.com

For the reflector manual, troubleshooting and FAQ's, please visit the reflector support page at:

<http://www.airsquirrels.com/reflector/resources/>

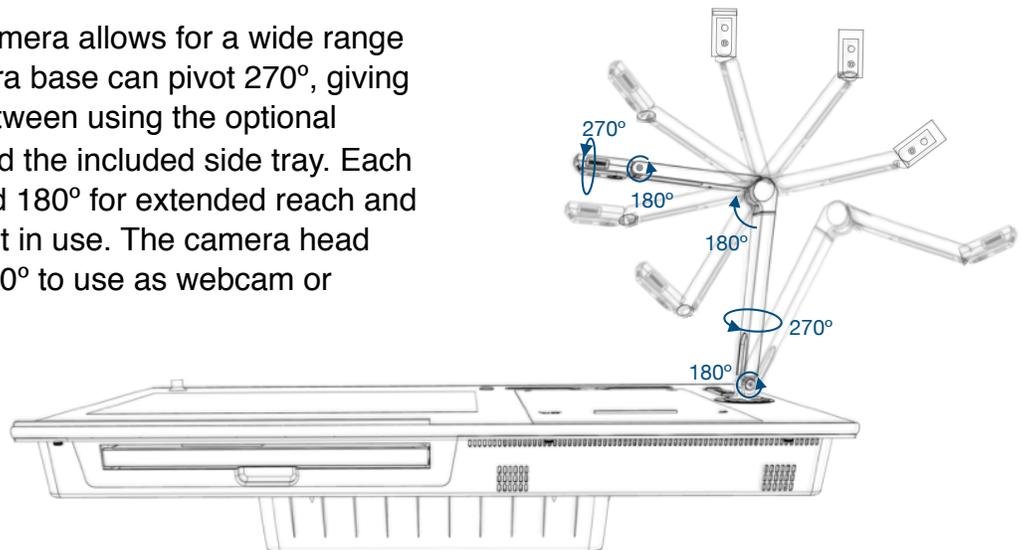
The Pilot includes one of the most powerful document cameras, the HoverCam Solo 8Plus. The document camera is useful for showing live imaging, recording lessons, scanning documents, video chatting, live digital annotations, and much more. The document camera can be used with nearly any USB camera software, but it is recommended to use the HoverCam Flex 11 software (included).

Specifications Include:

- 13 MP Camera Sensor
- 480x Zoom
- 4K Resolution
- Auto Focus Lens
- HD Video @ 120fps
- Built-in microphone with noise reduction

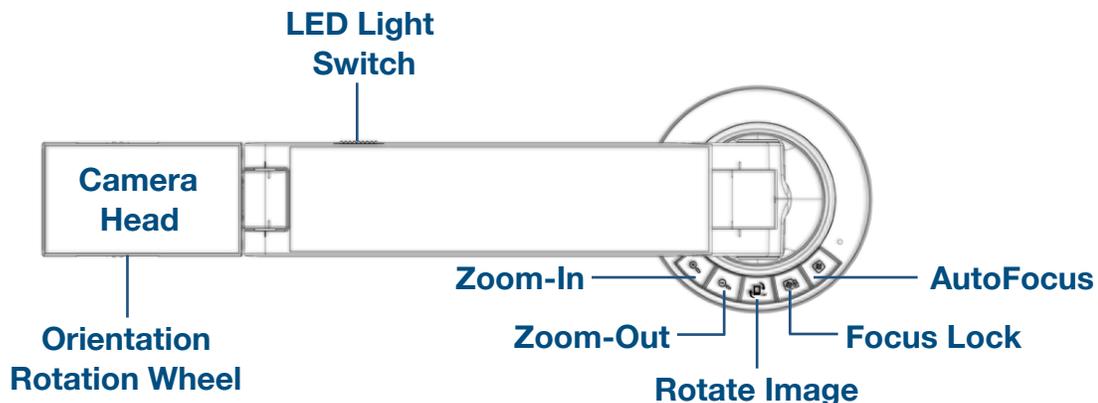
Adjusting the Camera

The Solo 8Plus document camera allows for a wide range of viewing angles. The camera base can pivot 270°, giving users the option to switch between using the optional document positioning mat and the included side tray. Each of the camera's arms can fold 180° for extended reach and convenient storage when not in use. The camera head can also fold 180° and roll 270° to use as webcam or classroom camera.



Operating the Camera

The Solo 8Plus document camera features several convenient features, such as orientation, zoom and focus controls, as well as integrated LED lighting.



Flex 11 Document Camera Software

The included Flex 11 software uses the Solo 8Plus document camera to output live video, take still images, record, scan, annotate, and much more.

The Pilot comes standard with the KnoteSter software preinstalled. The software can also be downloaded from the HoverCam website for free:

<https://www.thehovercam.com/software-downloads/>



KnoteSter Classroom Management Software

The Pilot also features a comprehensive classroom management software suite that contains features such as:



Desktop Marker

An annotation tool that allows users to annotate over any live program or application including web browsers, live video, presentations, word



Roster Manager

Name, sort, organize and add descriptions to individual classes.



Archive Manager

Organize previously-saved lessons, documents, and screen shots. Here you can publish/unpublish lessons, edit and trim videos, and download



Lesson Recorder

Record your lessons and upload in real-time to a cloud-based server. Full lessons are available immediately after recording.



Document Camera

Includes the Flex 11 document camera software.



Whiteboard

A multi-touch digital whiteboard space allowing for annotation, note-taking and drawing. Whiteboard features panning, pinch-to-zoom, and tab creation to expand working



To learn more about KnoteSter, visit the manual at:

<https://thehovercam.desk.com/customer/en/portal/articles/2883428-knotester-manual>

The Pilot comes standard with the KnoteSter software preinstalled. The software can also be downloaded from the HoverCam website for free:

<https://www.thehovercam.com/software-downloads/>

Windows Troubleshooting

If you encounter an issue with Windows 10, please visit the Windows 10 support page at:

<https://support.microsoft.com/en-us/products/windows?os=windows-10>

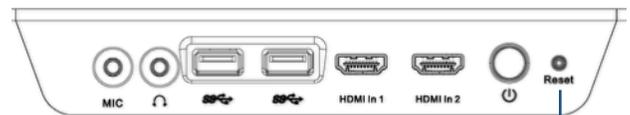
Document Camera Reset

If you encounter an issue with the included Solo 8Plus document camera, you can manually reset it by using a pin to select the manual reset button at the base of the camera. If this does not resolve the issue, contact HoverCam support: support@thehovercam.com

Manual Reset

If you encounter an issue with the Pilot's internal computer hardware, the motherboard can be manually reset from the button on the right side of the podium.

We do not recommend resetting the motherboard unless there is a hardware error. If the Pilot's computer has a software malfunction, we recommend restarting it from the Windows software or pressing and holding the power button.



Motherboard Reset

Pilot Drivers

If the internal computer becomes corrupted, or when the device is imaged, the necessary drivers will need to be reinstalled. The included USB drive contains the necessary drivers. Alternatively, you can request the drivers from HoverCam support: support@thehovercam.com

HoverCast

In the event of loss of touch USB connectivity, there are three simple solutions to regain connectivity.

Solution 1: Power Cycle All Devices

1. Power off the HoverCast, the output device, and the Pilot
2. Power on the HoverCast, the output device, and the Pilot **in this order**.
3. Be sure the flat side of the HoverCast antenna on the Pilot (with the ventilation circles) is facing the HoverCast receiver at all times.

Solution 2: Unpair and Re-Pair the HoverCast to the Pilot via Bluetooth

1. To unpair, open settings, then click/tap the **Devices** icon.
 - a. Click/tap **Bluetooth & Other Devices** on the left-hand side, then click/tap on the paired Bluetooth Device (ex: “**CS-MTouch**”) you’d like to remove.
2. Click/tap the **Remove Device** button.
3. Pop-up Window: Click/tap **Yes** to confirm.

Turn off the Bluetooth slider on the Pilot and **wait one minute**. Then turn the Bluetooth slider back on.

4. Make sure your Bluetooth device is turned on and ready to pair. On the HoverCast, press the **Touch** button. The blue touch light will start blinking.
5. To pair, click/tap **Add Bluetooth and Other Device** icon.
6. The Add a Device Window will appear. Select Bluetooth and wait for the **CS-MTouch** to appear.
7. Click/tap on CS-MTouch and select **Connect**.
8. The Touch light will light up solid blue. **Wait for 30-60 seconds**. The blue light will turn off. Wait another 30-60 seconds. The Touch light will illuminate and stay solid blue.

Solution 3: Unplug and Replug the USB Cable from the Back of the HoverCast

1. Unplug the **USB cable** from the back of the HoverCast.
2. Power off the output device. **Wait for 10 seconds** and power the device on again.
3. Replug the USB cable into the back of the HoverCast and **wait for 15 seconds** to ensure connectivity.

NOTE: The wireless HDMI transceiver is specifically paired with its corresponding Pilot unit. Loss or damage of the receiver will impair one-to-one connectivity. Pilot units with lost or broken receivers will need a new receiver to be paired and programmed before continuing use. If your receiver is lost or broken, please contact HoverCam Support.

Accessing Internals

Opening the Pilot's encasement will void any standing warranty. If you would like to access the internals to service or swap components, we strongly suggest first contacting HoverCam support:

support@thehovercam.com

Cleaning and Care

When cleaning the HoverCam Pilot, extra care should be taken in consideration to the touch screen and external components. The best and safest cleaning method is to use a dry microfiber cloth and gently wipe the touch screen while the unit is powered off. Glass cleaners are not advised as the moisture may damage or adversely affect touch sensitivity or component functionality.

Warranty

Pilots have a standard 1-year warranty. Please register your warranty here:

<https://thehovercamserver.com/shop/warranty-registration/>

This warranty can be upgraded to 3 or 5-year policies. To purchase an extended warranty, please contact your authorized HoverCam reseller.

Service

For technical support and servicing requests, submit a service ticket at:

<https://thehovercam.desk.com/customer/portal/emails/new>

or email support@thehovercam.com.

When requesting support, be sure to download the desktop mirroring application, **GoToMeeting**. GoToMeeting is a remote desktop and conferencing software that allows HoverCam technical support staff to view and access your HoverCam Pilot unit remotely with a designated viewing code.

To access, visit www.GoToMeeting.com via the Pilot. HoverCam Support staff will provide a 9-digit access code to sync the HoverCam Pilot unit with Support and enable screen sharing. Support staff will then be able to better diagnose and troubleshoot.

Support, assembly, set-up, and troubleshooting videos are available online at the HoverCam YouTube channel: www.youtube.com/mrhovercam