



TECHNOLOGY FOR REMOTE COURIER PRACTICE

The Courier Sub-Committee assembled this resource of platforms and equipment that are available to aid in the process of remote courier practice. Products listed are examples that have been used with success by ARCS members but other similar items may work well. The handout will be updated regularly. Please contact info@arcs.org if you have any suggestions that you would like to contribute to the list.

Platforms

Name	Price	Link	Notes
BlueJeans	Monthly or yearly subscription	https://www.bluejeans.com/	Web conferencing platform with various pricing plans
Google Meet	Free	https://meet.google.com/	Great for document sharing. Must have a gmail account for video chat features
GoToMeeting	Monthly subscription	https://www.gotomeeting.com/	Online meeting, desktop sharing, and video conferencing software
NextCloud	Yearly membership	https://nextcloud.com/	Cloud storage file management with teleconferencing options
Slack	Monthly subscription	https://slack.com/	Channels are useful for keeping conversations organized
Teams	Free for Microsoft Users	https://www.microsoft.com/en-us/microsoft-teams/group-chat-software	Great integration into other Microsoft products (calendars, doc sharing, etc). Difficult for non-Microsoft users to have access to all features
WebEx	Basic Plan is free. Monthly subscription for Business Plan	https://www.webex.com/	Video conferencing, online meetings, screen share, and webinars

WeChat	Free	https://www.wechat.com/	Easy to use, highly recommended if working with an institution in China. Difficult to sign up if not in China; concerns around security and privacy
WhatsApp	Free	https://www.whatsapp.com/	Good for international calls (popular app is used globally)
Zoom	Free version is limited, subscription available	https://zoom.us/	Widely used, high level of familiarity

Hardware

Microphones

A separate microphone can provide clearer sound quality and can be located close to the action, reducing background noise. Options include omnidirectional microphones frequently used in conference rooms to pick up multiple speakers or unidirectional microphones which will pick up sounds from a single speaker facing the microphone.

<https://mxmlmics.com/products/ac-404/>

Headphones

Noise-canceling headphones can be important during noisy installations.

Examples:

https://www.bose.com/en_us/products/headphones/noise_cancelling_headphones.html

Headsets

Great for hands-free video calls.

Examples:

<https://shop.realwear.com/products/hmt-1>

Webcams

Allows for much more camera manipulation than using a built-in laptop camera.

Examples:

<https://www.logitech.com/en-us/products/webcams/c920s-pro-hd-webcam.960-001257.html>

Tablet//Laptops

Multiple camera views provide the best virtual courier experience. One view can present the overall area and another can be focused on the specific artwork or activity.

Hotspots

A Wi-Fi Hotspot is a wireless device that lets you connect tablets, computers, and other devices to the internet when you're on the go. They're built into most smartphones, but you can also get dedicated, standalone, mobile hotspot devices that deliver faster speeds, connect more devices, and have a longer battery life than your phone. A Wi-Fi Hotspot may be worth considering if your work depends on internet/ Wi-Fi access and you expect unreliable internet service at your work location(s). Hotspots require cell service which they use to create the Wi-Fi signal. You'll need a data plan from a cell phone company or other provider to make the hotspot work.

Factors to consider in choosing a Wi-Fi Hotspot device:

Battery life of the device	Using a smartphone as a hotspot can drain the battery. Standalone devices may have 10 to 20 hours of battery life. The long battery life of most hotspot devices can also allow them to be used as a back up charger to charge your phone or other devices.
Wi-Fi speed	Most Wi-Fi hotspots hit top speeds of around 30–40 Mbps. 5G hotspots can range from 50 Mbps to well past 1,000 Mbps in some urban areas (where millimeter-wave 5G is available).
USB tethering	In an area crowded with hotspots and other Wi-Fi signals, your hotspot's ability to connect via USB cable lets you avoid Wi-Fi congestion.
Cost of device	Cost of a smartphone, or \$90 to \$500 for a dedicated device (with 5G devices costing more).
Cost of data	\$5 to \$100 per month depending on speed, type of service and amount of data.
International access	Some hotspots are designed specifically for traveling internationally, giving you Wi-Fi either through a special data plan or via a SIM card from a local provider. Consider a standalone hotspot device if you plan to use it regularly and don't want to deal with finding SIM cards or working with international cell companies.

Amount of devices connected	Smartphone hotspots usually have a cap of 10 to 15 devices which can connect to it. Standalone hotspots are recommended if a group of people with multiple devices will need to connect to the Wi-Fi service.
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Examples:

<https://www.verizon.com/internet-devices/verizon-jetpack-mifi-8800l/>

<https://www.t-mobile.com/hotspot-iot-connected-devices/inseego-5g-mifi-m2000>

Trackers

Mobile tracking devices sending GPS location and environmental readings at a predetermined schedule. Specific models must be pre-approved by airlines for all cargo. Available as both single and multi-use models.

Tracker	Description	Notes
Tive - Solo	Single-use multi-sensor tracker provides real-time visibility into the location, temperature, humidity, shock, and light.	Small size. Disposable/Single use. Easy to share information link. Affordable. Pre-charged. Power button must be turned on in an area with wi-fi (many packing/crate storage areas have poor wi-fi).
Tive - Flagship	Multi-use, multi-sensor tracker provides real-time visibility into the location, temperature, humidity, shock, light, and pressure.	Rechargeable. Easy to share information link. Can measure pressure and is slightly more sensitive to shock than the Solo model. More expensive than Solo. Must be returned. Power button must be turned on in an area with wi-fi (many packing/crate storage areas have poor wi-fi).
CargoSignal	Most models provide real-time data (location, temperature, humidity, shock, and light), but at least one model only provides notifications when certain points of the transit are reached (origin departure, airport arrival/departure, destination arrival).	Rechargeable. USB charger provided by CargoSignal. Must be returned. Information link very clunky - difficult to access and share.

SenseAware	FedEx product - for use with FedEx shipments and with other carriers. Tracks real time location, temperature, humidity, pressure and light.	Monthly subscription or single journey. SenseAware ID uses Bluetooth Low Energy. SenseAware uses cellular energy.
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Tech Accessories

Workstations

Mobile carts, rolling/standing desks.

Very helpful for keeping laptops/tablets/phones/condition report binders all in one place and mobile during install. Any cart can be useful but one designed as a mobile workstation can be beneficial for multitasking.

Examples:

<https://www.standupdeskstore.com/mobile-standing-computer-workstation-keyboard-tray>

Tablet Stands/Tripods

Essential for long install days.

Examples:

<https://www.dotlinecorp.com/shop/universal-tripod-mount-for-tablets/>

<https://ctadigital.com/product/compact-gooseneck-floor-stand-for-7-13-inch-tablets/>

<https://ctadigital.com/product/heavy-duty-floor-stand-with-vesa-compatible-articulating-arm/>

Gimbal (used for stabilizing cameras/phones for smoother footage)

Can be a cheaper/more versatile option than rolling carts/tripods.

Examples:

<https://store.dji.com/product/dji-om-5?from=event-holiday-2021&vid=106401>

https://www.bhphotovideo.com/c/search?q=gimbals&filters=fct_configured-for_5447%3Asmartphones

Considerations for planning and preparation

- Backup battery packs/charging stations
- Consider ways of reducing background noise
- Working with the preferred platform of the host yields better results
- Multiple cameras/stations are beneficial
- Smartphone cameras tend to be better than laptop/tablets, but keep in mind you may need to make a call during the video meeting (another reason to have multiple devices ready)
- Discuss accessibility needs with your host in advance (captioning, mute mics when not speaking, use an app that allows chat alongside video)