



DEPLOYABLE FLYING FOX™ KIT

Quick Start Guide



+1.847.598.0218

| epiqsolutions.com



CONSIDERATIONS BEFORE YOU START

SENSOR PLACEMENT

Flying Fox sensors locate emissions **INSIDE** the perimeter of a monitored area. For optimal sensing, Flying Fox sensors should be placed near the four corners **OUTSIDE** the perimeter of the area to be monitored (but see diagrams below). Maximum recommended spacing is 40 feet apart for optimum geolocation; minimum spacing is five (5) feet apart. Placing sensors closer together increases geolocation accuracy, but spacing must not be closer than five feet.

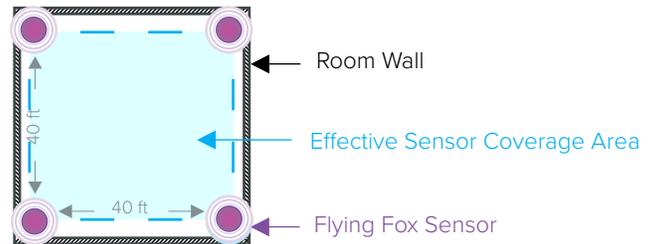
It is recommended that you recon the physical location, or review blueprints of the room, to be monitored to obtain an approximation of the room's square footage. Based on the square footage, you will know how many sensors are needed to monitor that space. See below coverage approximations for various sensor location scenarios. **Note: Three or more sensors should NOT be placed to form a colinear (on a single line) pattern.**

4 Sensors - Coverage = up to 1,600 ft²

Sensor Placement: At corners of room.*

Cable Requirements: Four (4) 50 ft** long CAT6 cables come with your kit.

CORRECT PLACEMENT OF 4 SENSORS

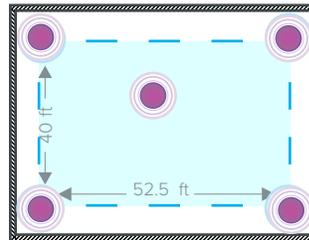


5 Sensors - Coverage = up to 2,100 ft²

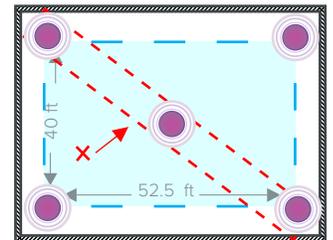
Sensor Placement: Four (4) at corners of room and one (1) off-center in the middle of the space.*

Cable Requirements: Five (5) 50 ft** long CAT6 cables come with your kit.

CORRECT PLACEMENT OF 5 SENSORS



INCORRECT PLACEMENT OF 5 SENSORS

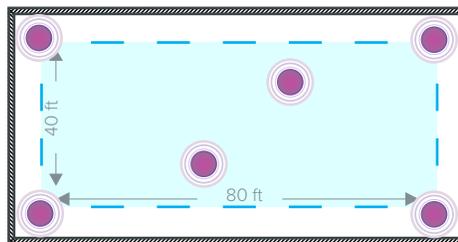


6 Sensors - Coverage = up to 3,200 ft²

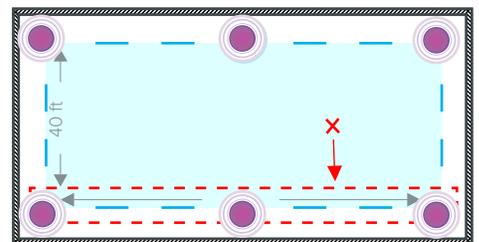
Sensor Placement: Four (4) at corners of room and two (2) off-center in the middle of the space.*

Cable Requirements: Six (6) 50 ft** long CAT6 cables come with your kit.

CORRECT PLACEMENT OF 6 SENSORS



INCORRECT PLACEMENT OF 6 SENSORS



NOTE: No scale.

* Some room layouts, especially those with an irregular shape, may require non-standard sensor placement. Please consult with the Flying Fox Team at Epiq Solutions to assist with sensor placement in your particular space.

** Some rooms and/or layouts may require longer cable lengths. Please consult with the Flying Fox Team at Epiq Solutions to determine your particular cable requirements.

CONSIDERATIONS BEFORE YOU START (Continued)

SOFTWARE

Your Deployable Flying Fox RF Sensor Kit comes with a laptop. You can log in to the laptop for the first time using the Username: flyingfox, and Password: flyingfox. The laptop comes pre-loaded with Naval Research Laboratory (NRL)'s Orb-weaver™ software (<https://confluence.di2e.net/display/FS/Orb-weaver+Releases>). Orb-weaver provides 24/7 passive monitoring, detection, identification, and location estimation of transmitting cellular, Bluetooth®, and Wi-Fi® devices within a fixed site. The software will allow you to configure and monitor your sensors, as well as collect and export monitoring data. Please consult with the Flying Fox Team at Epiq Solutions for training, documentation and support by calling (847) 598-0218.

LET'S GET STARTED

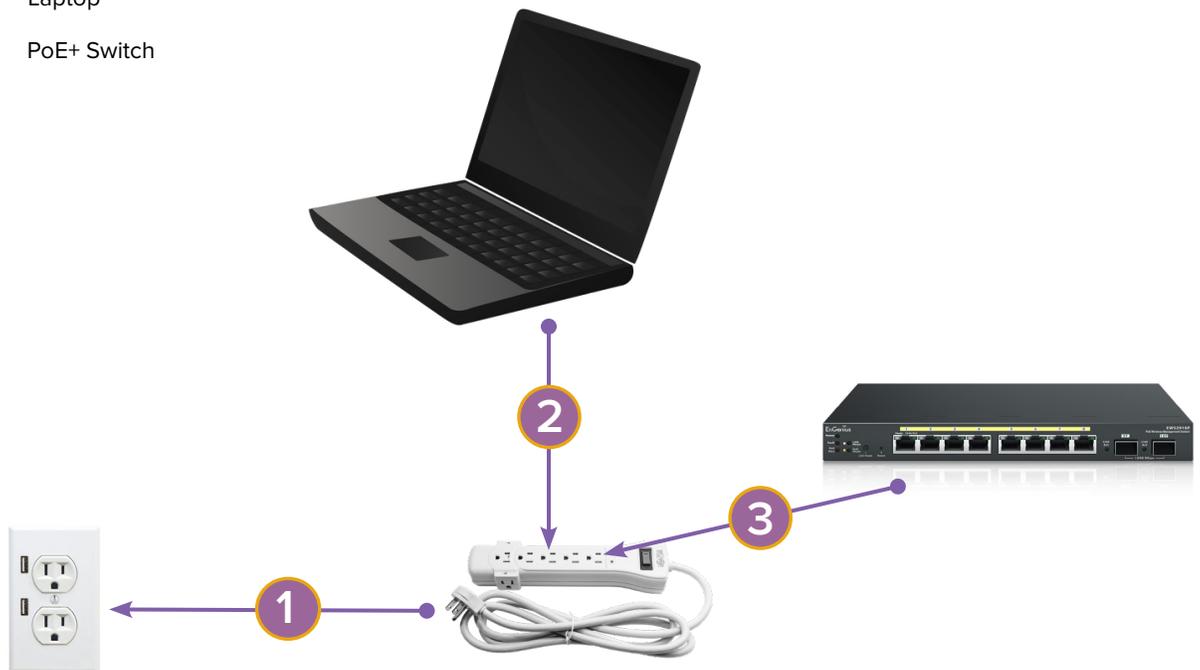


POWER UP (BUT NOT FLYING FOX JUST YET...)

1. Plug in Surge Protector to 110 volt power outlet.

Plug the following into the Surge Protector:

2. Laptop
3. PoE+ Switch



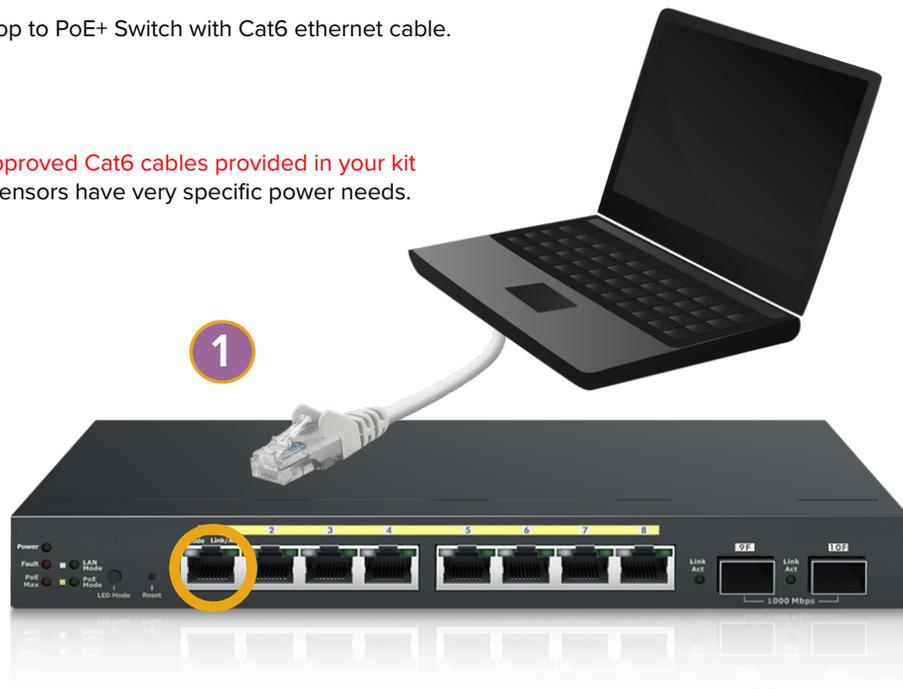
NOTE: DO NOT PLUG IN FLYING FOX SENSORS



CONNECT LAPTOP AND ANTENNAS

1. Connect Laptop to PoE+ Switch with Cat6 ethernet cable.

Use only the approved Cat6 cables provided in your kit as Flying Fox sensors have very specific power needs.



2. Attach the cellular antenna (the "flat" antenna, pictured on the left in the picture below) to the Flying Fox unit by twisting its chrome, grooved casing onto the terminal port labeled "CELLULAR." Do NOT use the antenna paddle itself to rotate the antenna onto the sensor unit. Next, attach the Wi-Fi antenna (the "round" antenna, pictured on the right in the picture below) to the Flying Fox unit by twisting its metal fastener onto the terminal port labeled "BLUETOOTH / WIFI." Use grooved screw covering at joint to secure antenna (see figure below).



CAUTION!

Only use the grooved screw cover part of the knob to secure each antenna to Flying Fox.

Use this grooved casing for securing cellular antenna to the Flying Fox unit

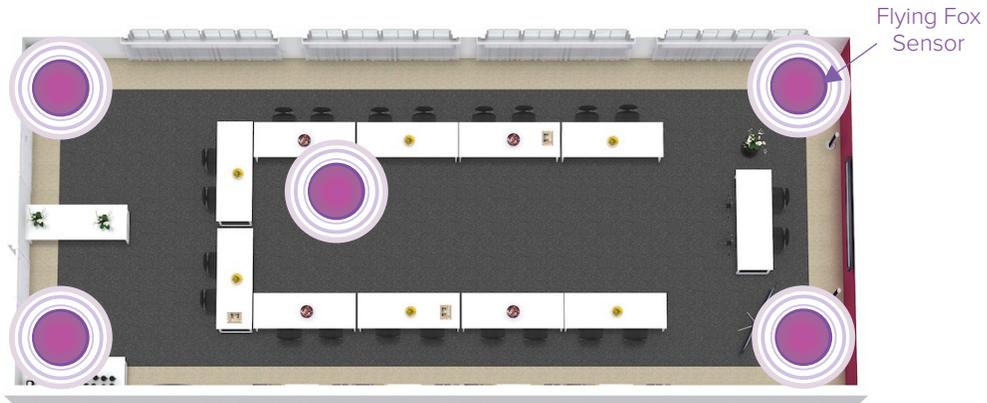
2

Use this metal fastener for securing Bluetooth/Wi-Fi antenna to the Flying Fox unit



PLACE SENSORS

Place Flying Fox sensors in pre-determined locations around the perimeter and inside of the space to be monitored (with 5 or more sensors) using information provided in 'Considerations Before You Get Started.'



CONNECT SENSORS

1. Pull Cat6 ethernet cable (use only the cable provided in your kit) to each of the Flying Fox sensors you have placed, and plug the connector into the sensor.
2. Secure cables with gaffing tape on floor and walls.
3. Plug other connector end of Cat6 ethernet cable into the PoE+ switch for each sensor.
4. This Base Kit contains up to six (6) sensors. However, additional sensors (purchased separately as part of an Expansion Kit) may be added to the network by daisy-chaining one (or more) additional PoE+ switch(es) using the remaining port.



NEXT STEPS

Once you have plugged in the last Cat6 ethernet cable connector into the PoE+ switch, the hardware portion of your set up is complete. The next step is to run the pre-loaded Orb-weaver software application. The Flying Fox Team at Epiq Solutions will provide the resources necessary to help you successfully activate, calibrate, and run the software. You can contact them as follows:

FOR DOCUMENTATION:

epiqsolutions.com/docs

FOR SUPPORT:

Email: support@epiqsolutions.com

Call: (847) 598-0218

