

# Photron

PFV Mobile

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# Photron



PFV Mobile

## **What is it?**

- Photron FASTCAM Viewer Mobile is a web browser application

## **What is it for?**

To support initial setup of Photron cameras using portable tablet devices (like a keypad remote control) -

- Where the main control PC is not easily accessible (located in adjacent control room)
- In large camera installations where technicians require access to cameras in parallel for position and focus adjustment etc.

## **Which devices are supported?**

Devices running Microsoft Windows, Android or iOS such as Android tablet or iPad

## **How does PFV Mobile connect to the camera?**

- Over WiFi using a Wireless Access Point connected to the main control PC
- Directly over ethernet via ethernet switch / hub to a second PC (faster communication)

## **How many devices can be connected simultaneously?**

- Multiple devices may be connected simultaneously
- Each device is refreshed/ synchronised automatically
- Supports FASTCAM MH6 with multiple heads



## How is it enabled?

- PFV Mobile is installed automatically as part of PFV ver. 4.03.1.0 or later
- PFV Mobile is activated via the “Add-on” menu on the host PC by reading a licence installed on a USB hardware key
- One USB licence will support unlimited devices connected to a single PC

## What does it cost?

Part no:	Description	End user price (EUR)
106204	Dongle key for PFV Add-on option	*€240.00
107518	Licence for PFV mobile	€1,000.00

\*2020 price increase due to hardware cost

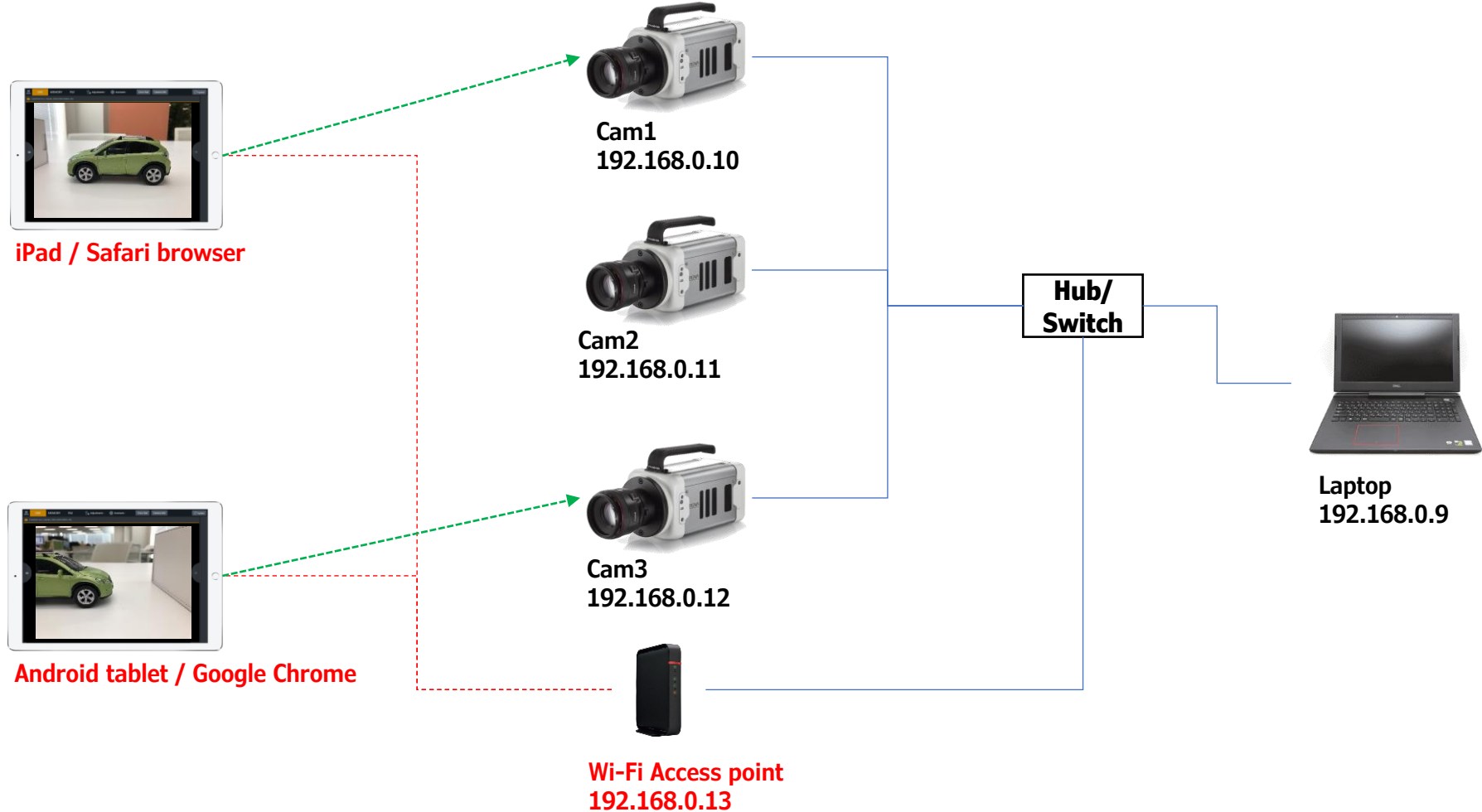
### NOTE:

Existing customers with PFV4 DAQ licence installed on USB hardware key will be able to add the licence for PFV Mobile to their existing hardware – they will not need to purchase another hardware key just the licence.

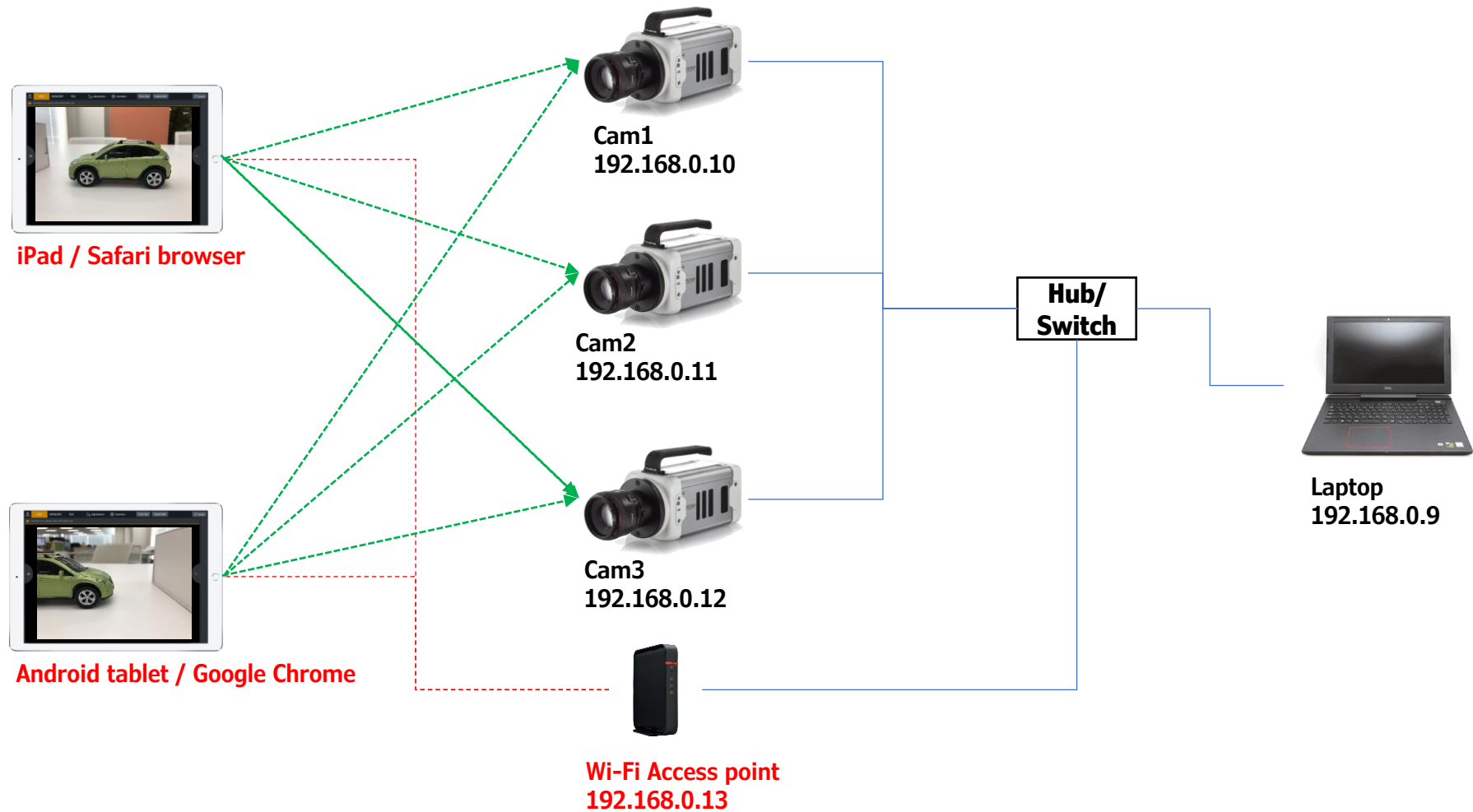
The key will need to be returned to Photron (Europe) to have the licence added.



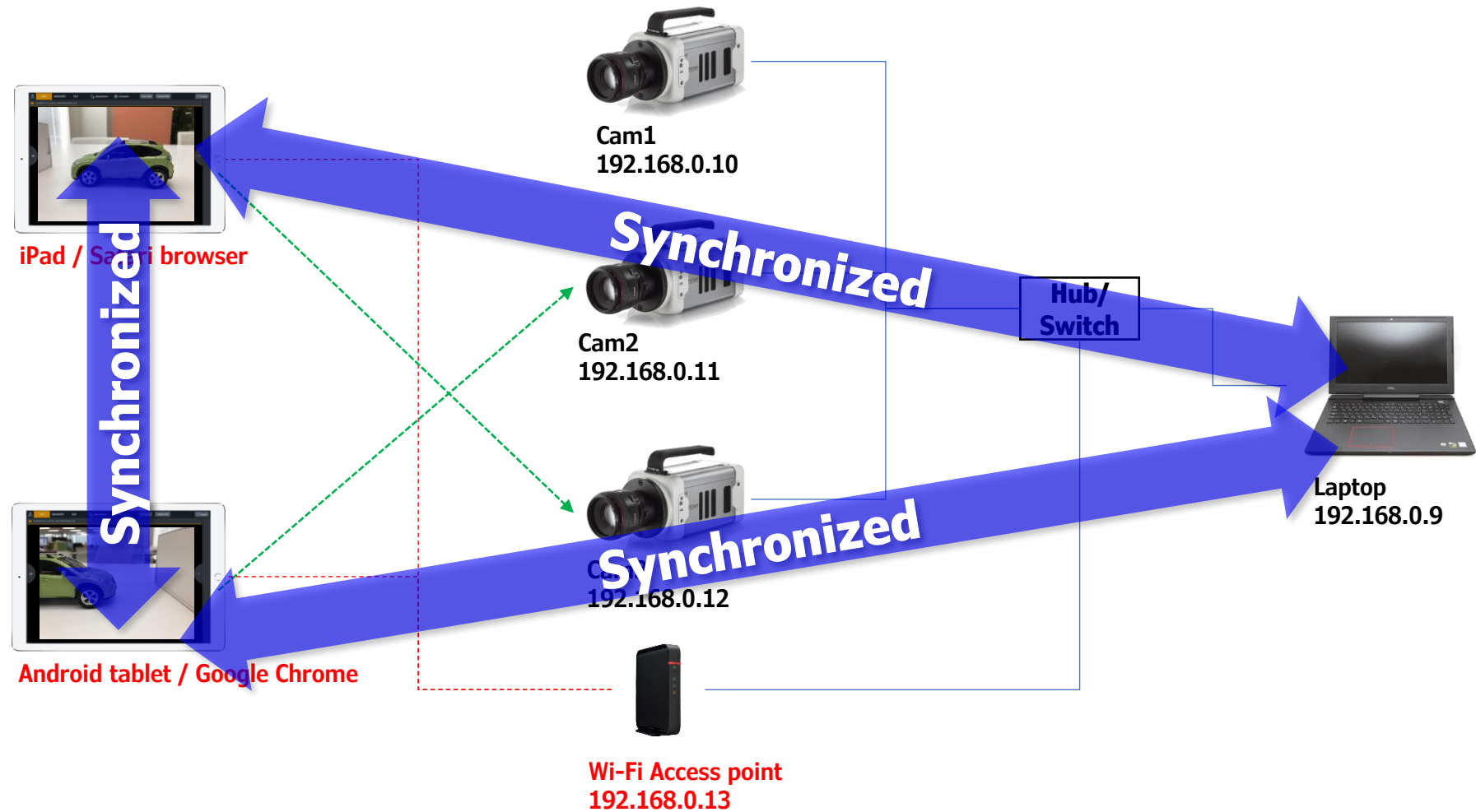
## Multiple operators Multiple cameras



## Switch between camera views

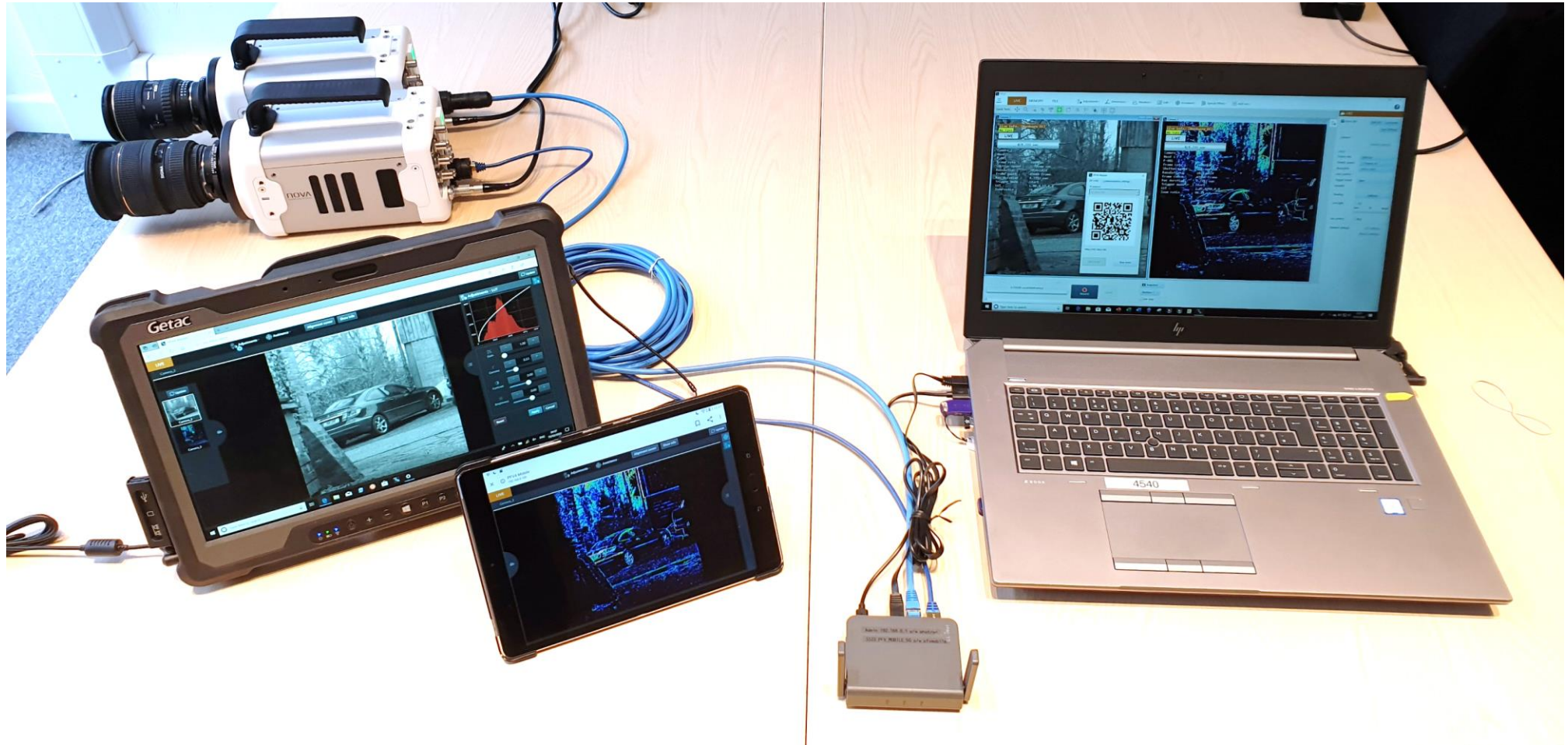


**All views synchronised automatically**

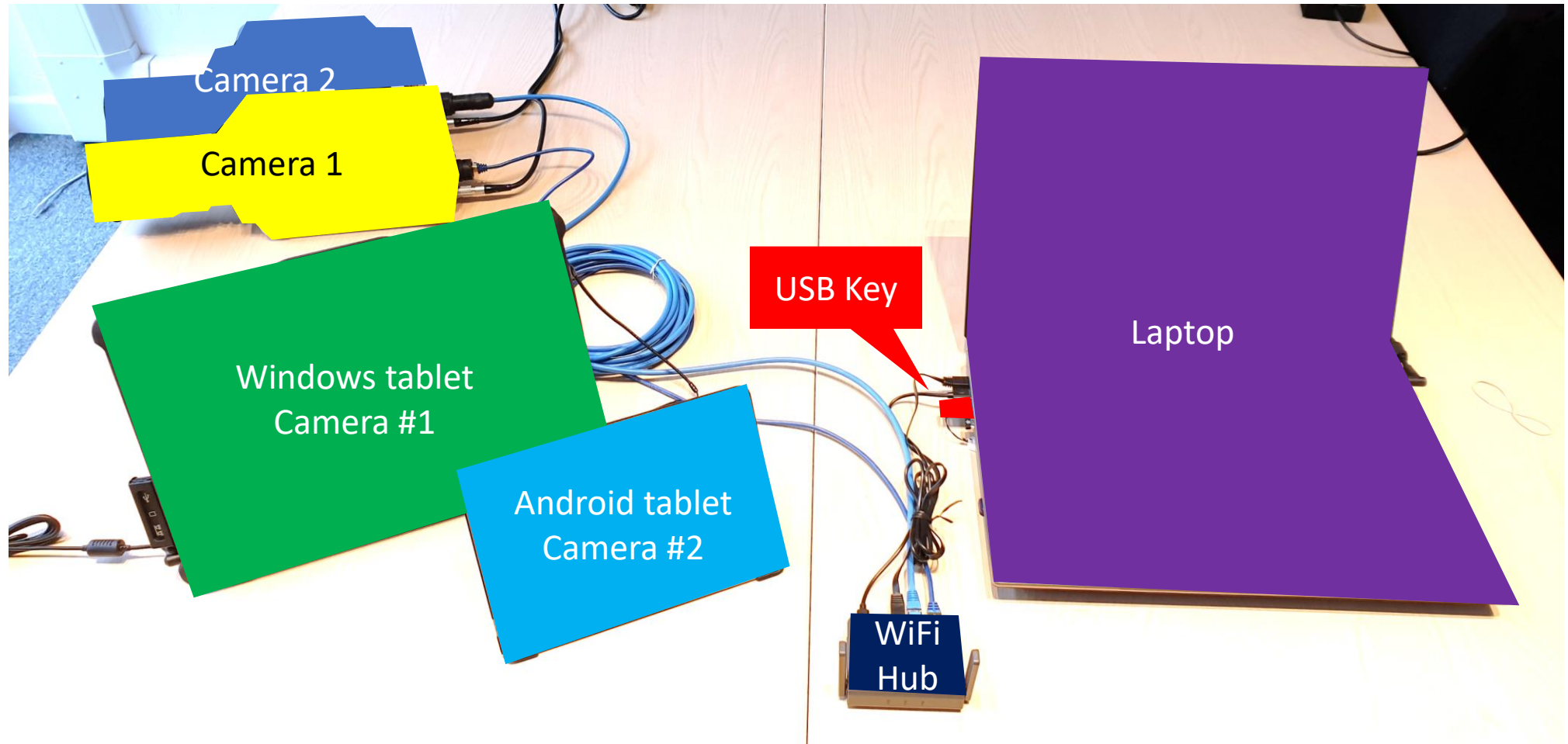




## Hardware



Multiple operators  
Multiple cameras

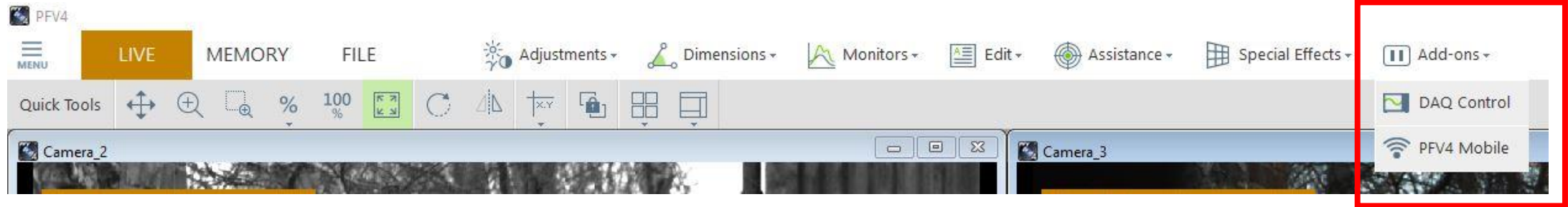


## Hardware Configuration

- Configure the following hardware to be in the same IP range i.e.
  - PC NIC: 192.168.0.1
  - WiFi Access point: 192.168.0.2
  - Camera #1 192.168.0.10
  - Camera #2... 192.168.0.11....
- Plug in the USB Key with the PFV Mobile Licence

## Installation – Software

- Install PFV ver. 4.0.3.1.0 or later on main control PC
- Verify all cameras are live
- Confirm Add-ons menu is available and PFV Mobile is listed

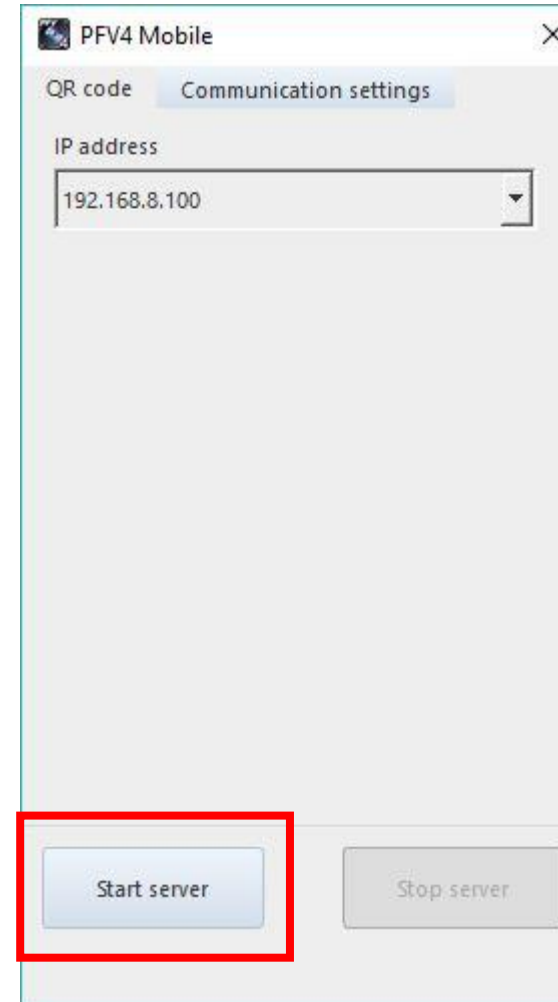


## WiFi Configuration

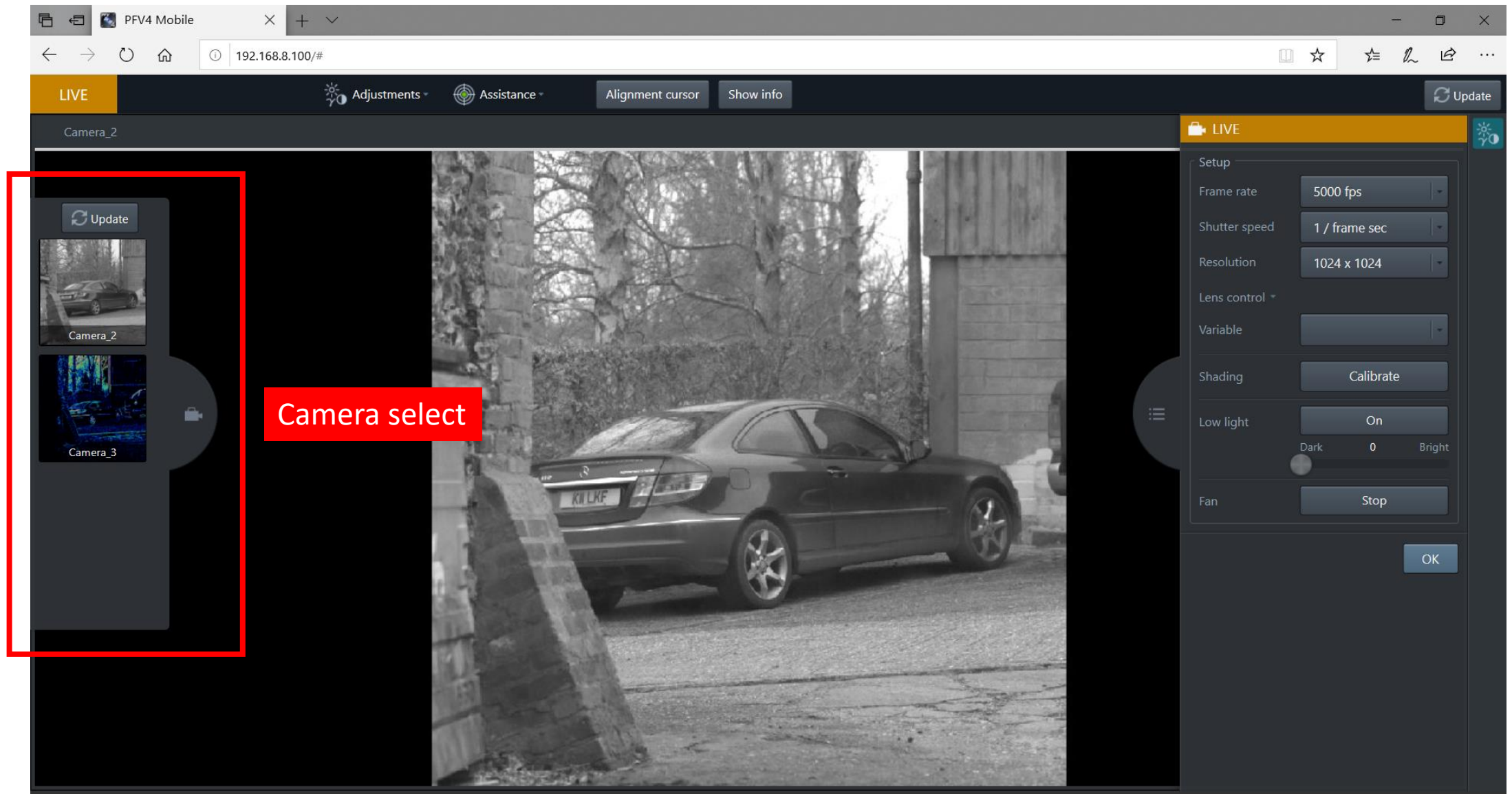
- Confirm and note the SSID and password for the WiFi access point
- On each mobile device that you wish to use, confirm you can logon to the WiFi access point

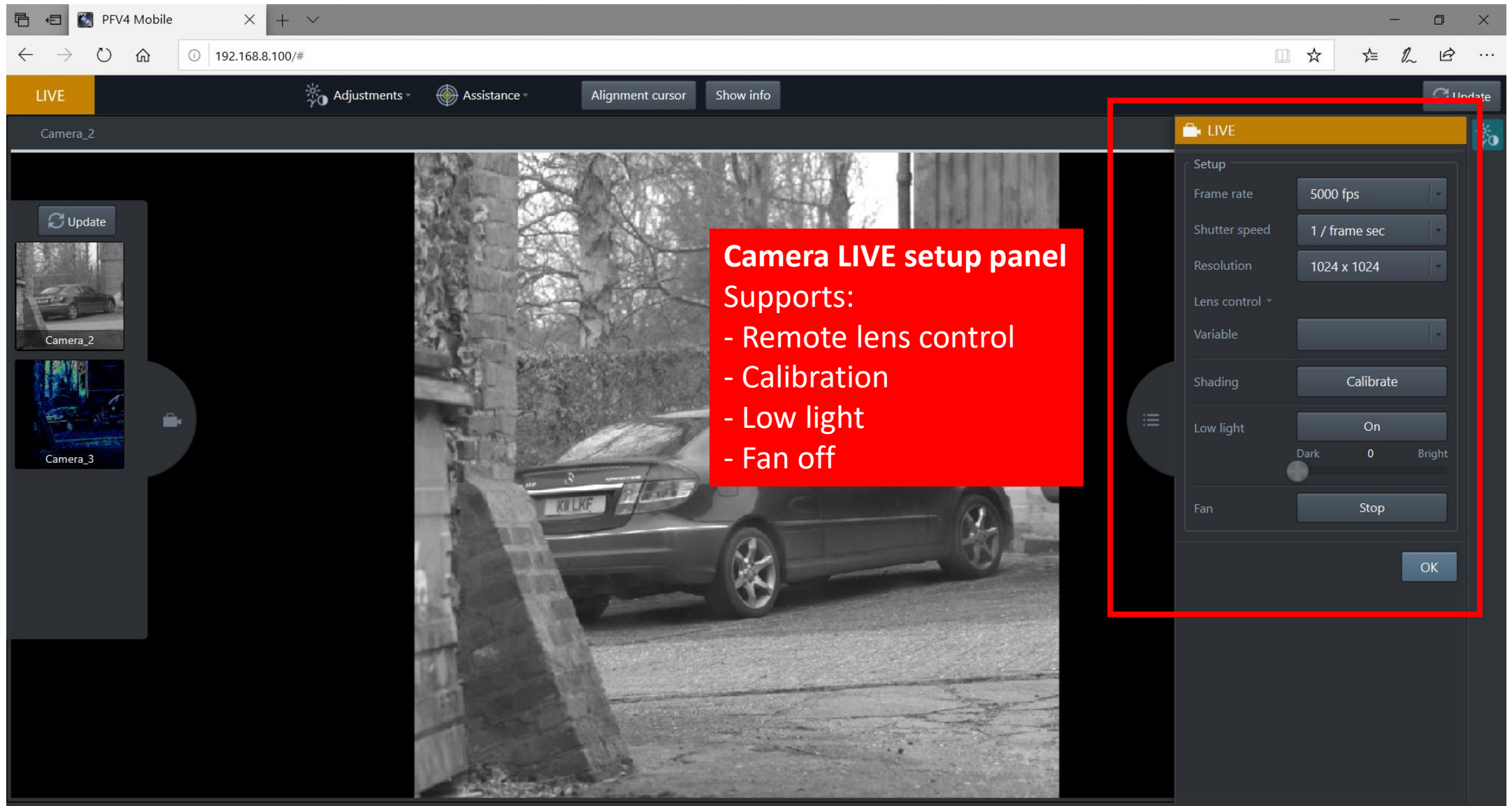
## Opening PFV Mobile

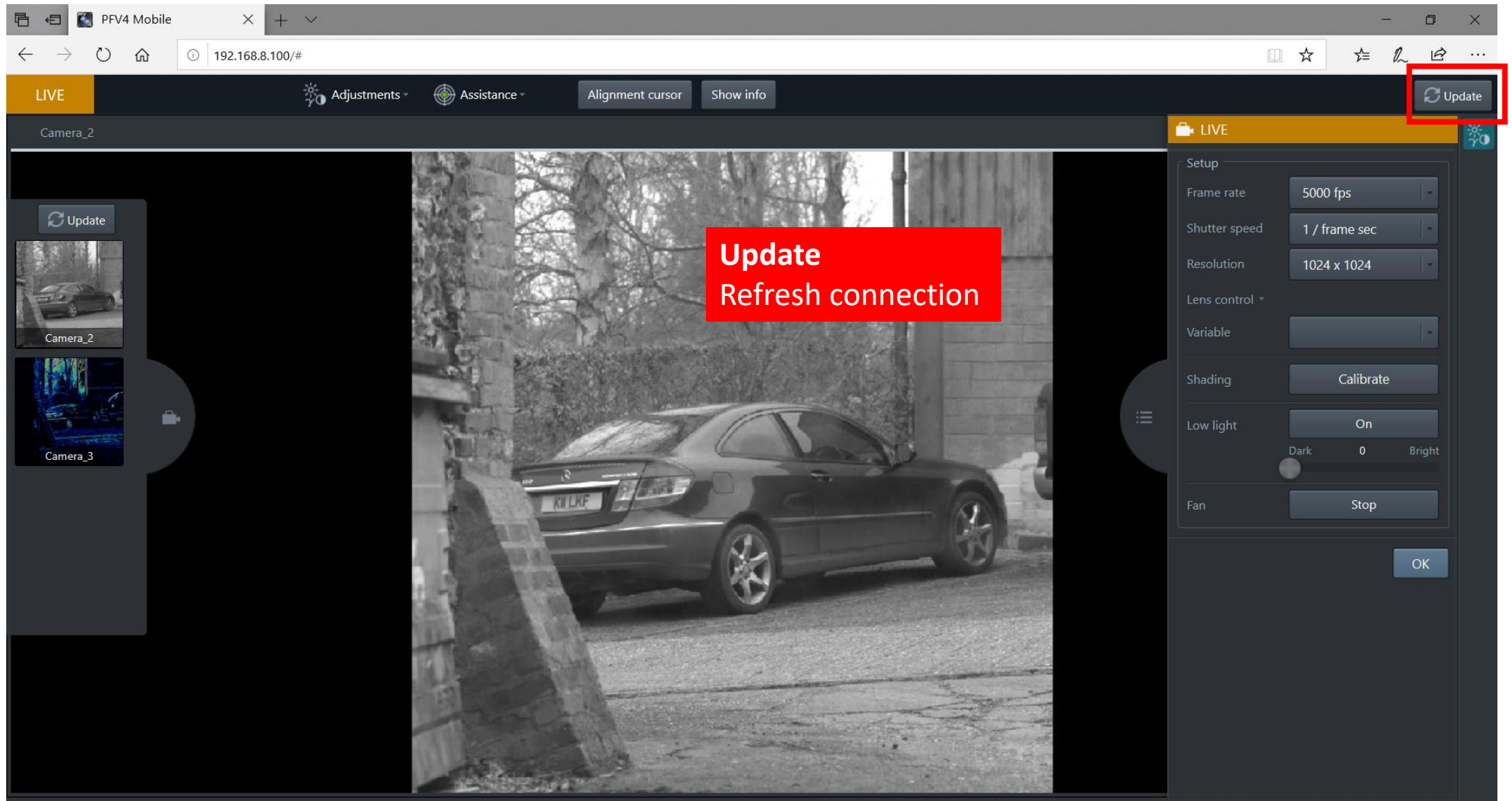
- Select <PFV Mobile> from the <Add-ons> menu
- The IP address of the PC NIC is displayed
- Select <Start Server>
- A QR code embedded with the IP address of the PC NIC is displayed
- Scan this image with a QR code reader on each mobile device or enter manually the IP address in to the device web browser
- PFV Mobile application should open within the web browser



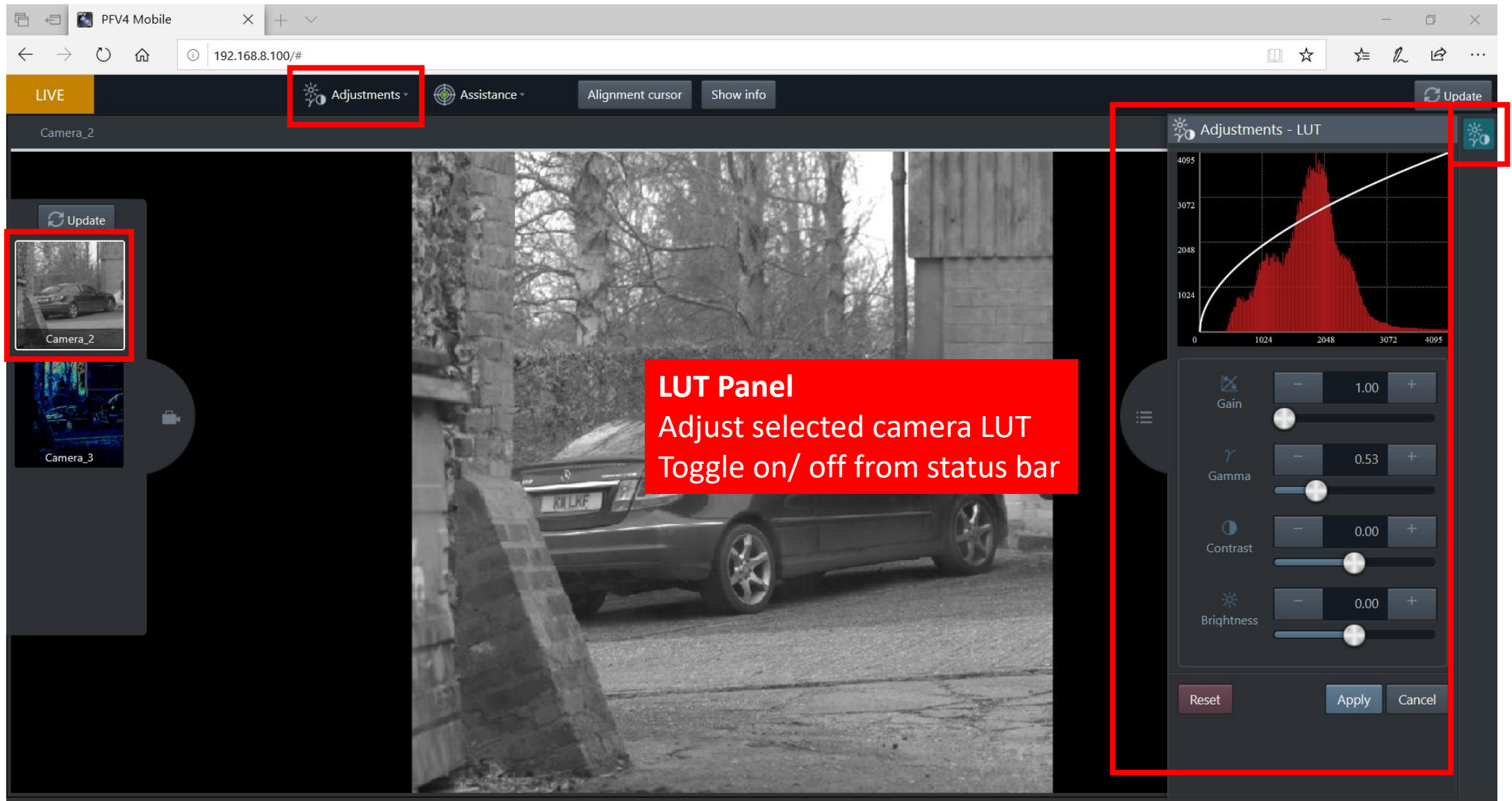




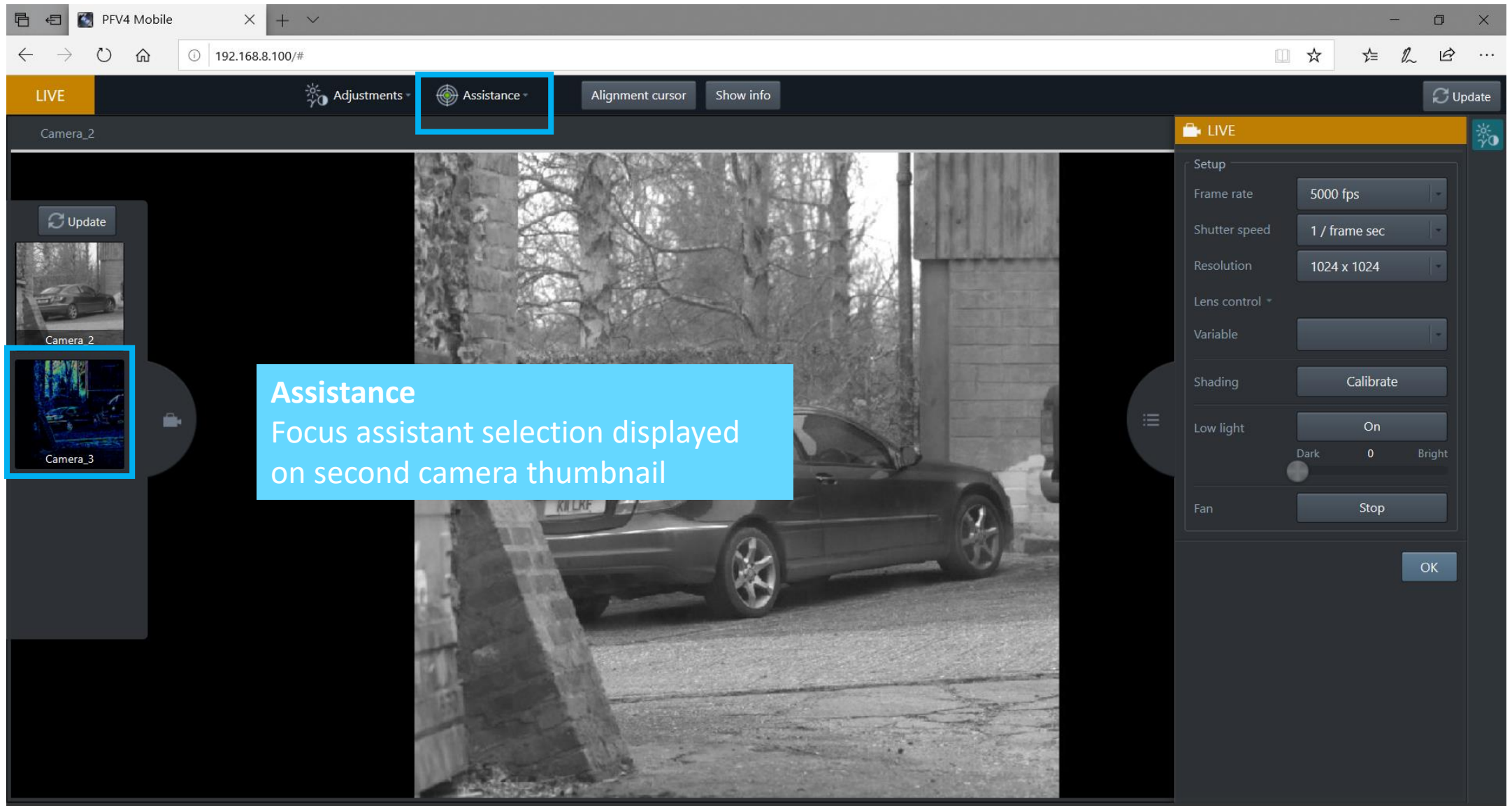


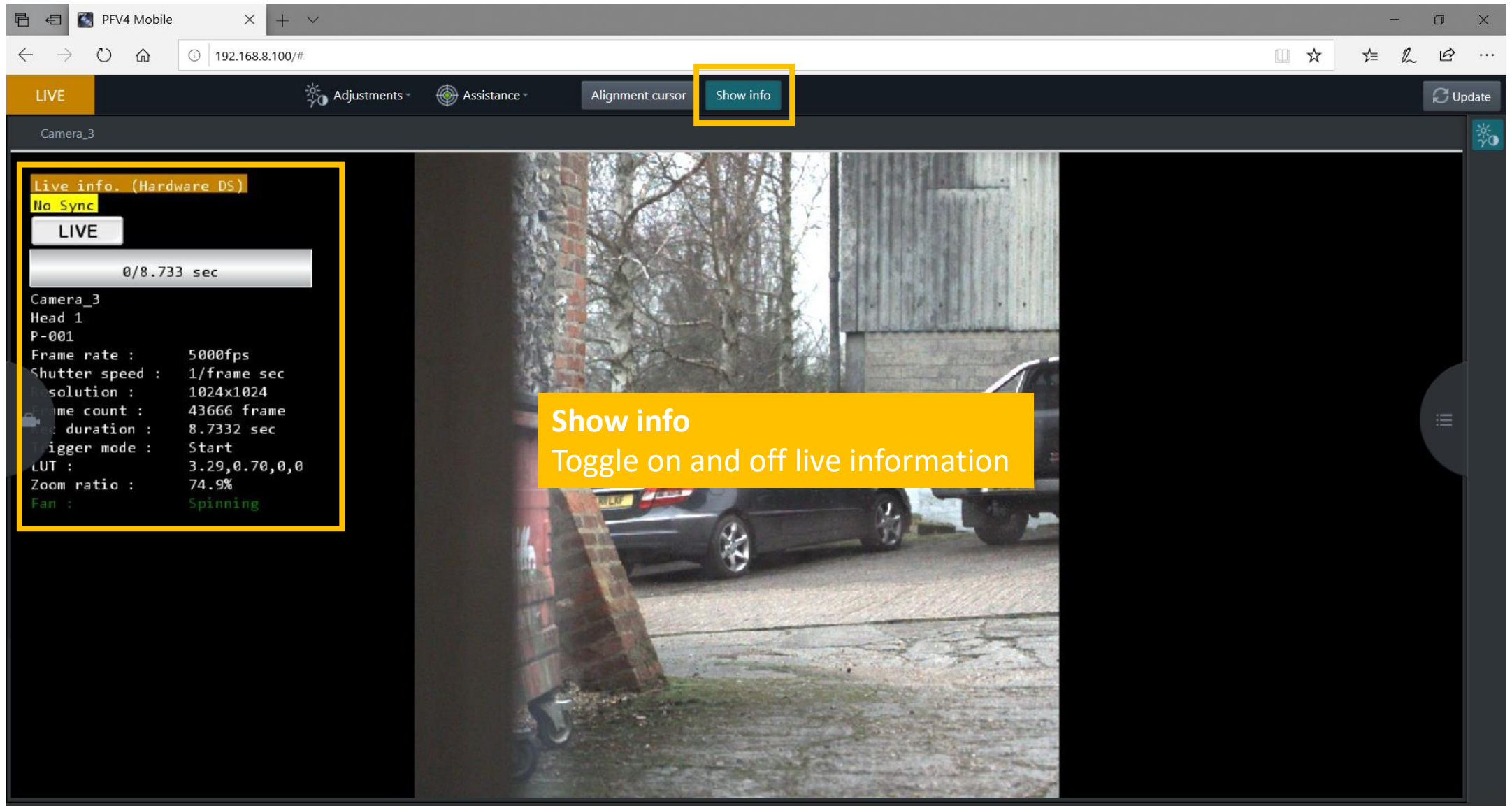


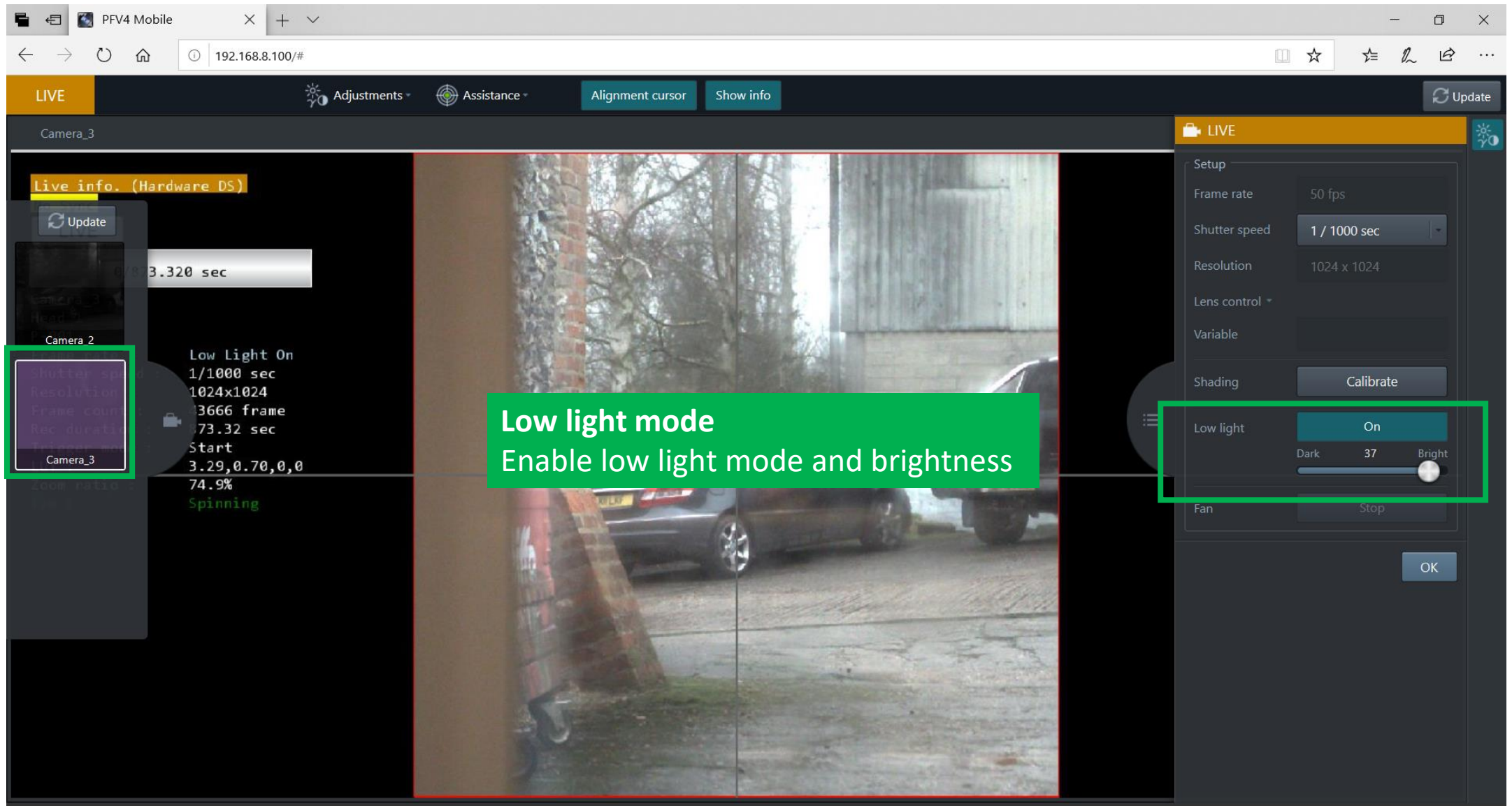




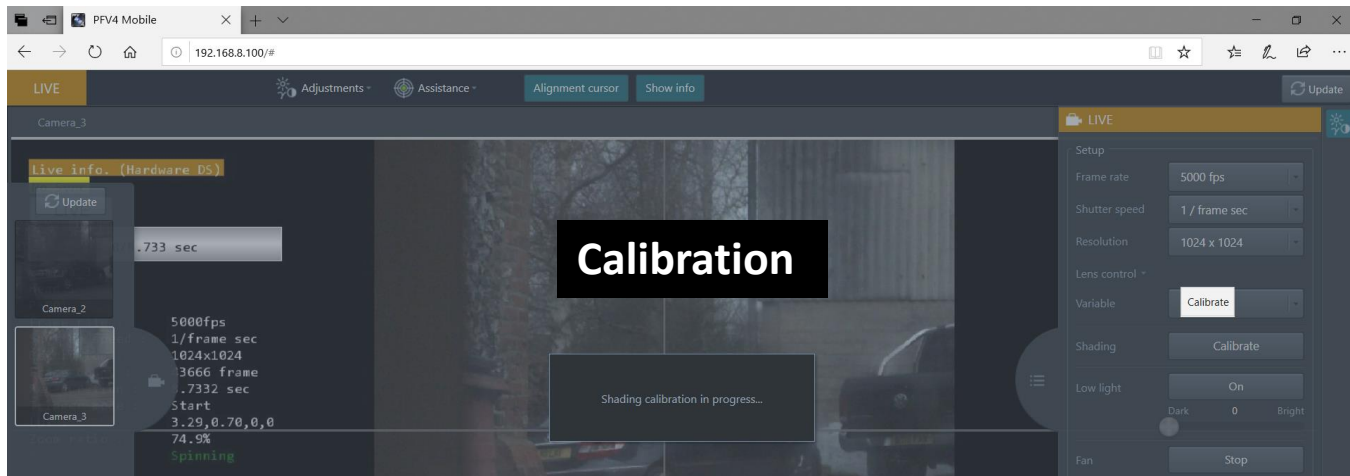




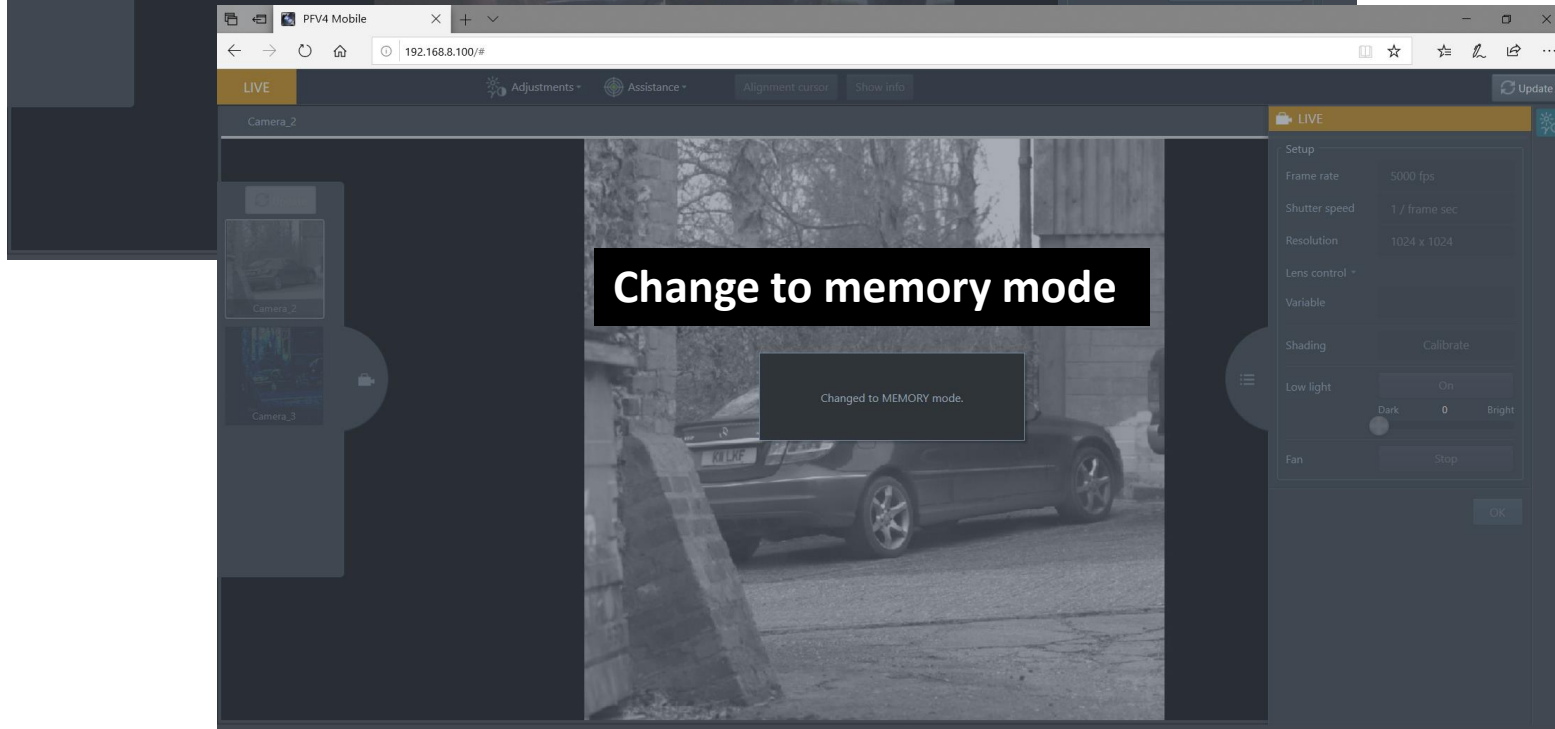


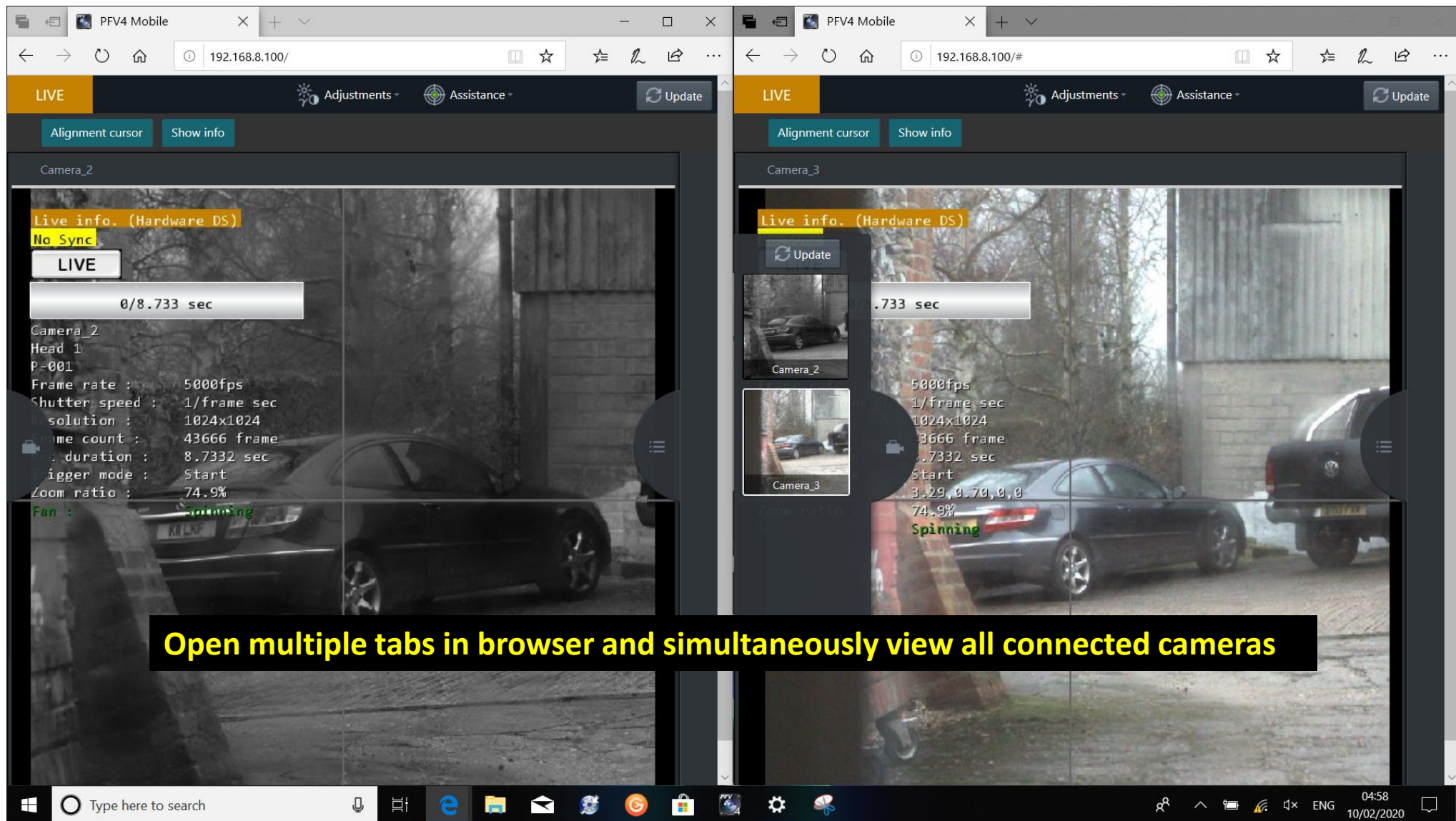






**Live status reflected on connected devices**  
Select message to clear notice  
In memory mode display shows real-time playback of images





## Configuration guide for WiFi access point recommended for demonstration

### GL.iNet Slate (GL-AR750S-EXT)

*NOTE: Setup procedure will be similar for alternative devices*



- Small and light weight
- USB powered
- 5G
- 3 gigabit ethernet ports suitable for operation of up to two cameras or a single camera and a ethernet LAN connected portable device (faster refresh rate)

<https://www.gl-inet.com/products/gl-ar750s/>





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### Recommended for demonstration:

Model:	GL.iNet Slate (GL-AR750S-EXT)
WiFi:	Dual band: 5GHz (433Mbps) /2.4GHz (300Mbps)
Protocol:	802.11 b/g/n/ac
Ethernet ports:	3x Gigabit ports (1x WAN, 2x LAN)*
Support jumbo frames:	Yes (achieved 880Mbps download speed with FASTCAM NOVA)
Power:	5VDC (<6W), USB power (from PC) / AC adapter supplied
Dimensions:	100mm X 68mm X 24mm, 86g

***\*NOTE: Using OpenWrt it is possible to configure WAN port to 3rd LAN port***

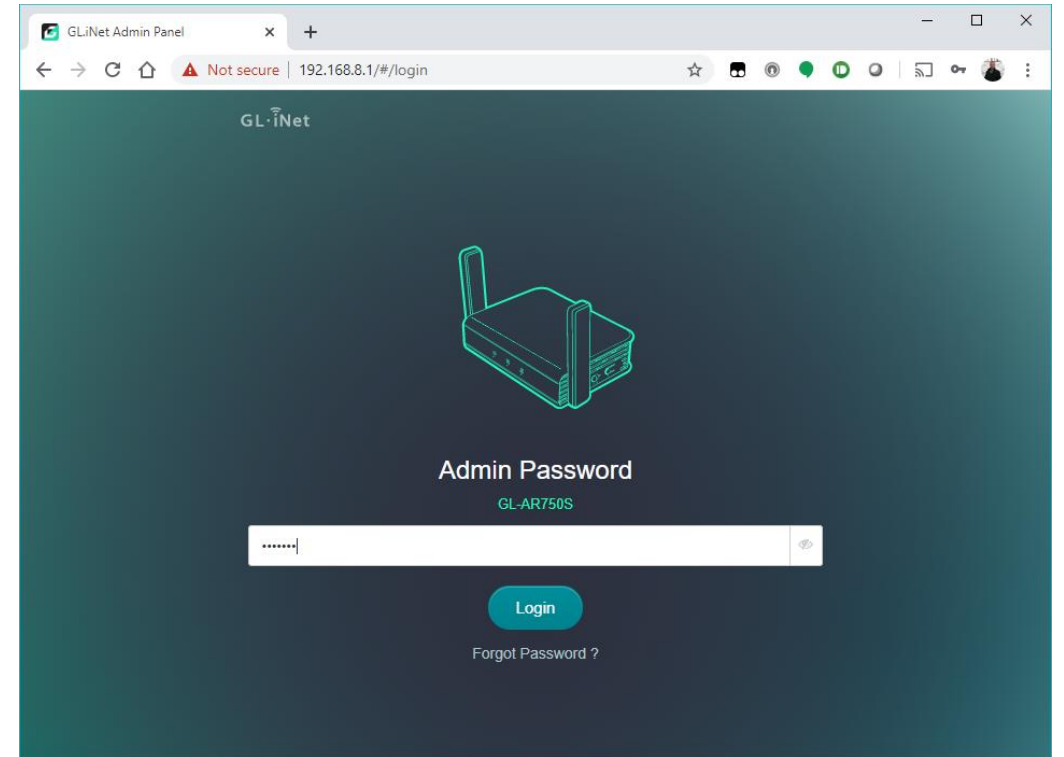




## Set up

- Connect to device over WiFi
- Default SSID: GL-AR750S-82a-5G
- Default Password: goodlife
- From browser enter ip 192.168.8.1 to access router settings (default IP)

**You will be prompted to change admin password**

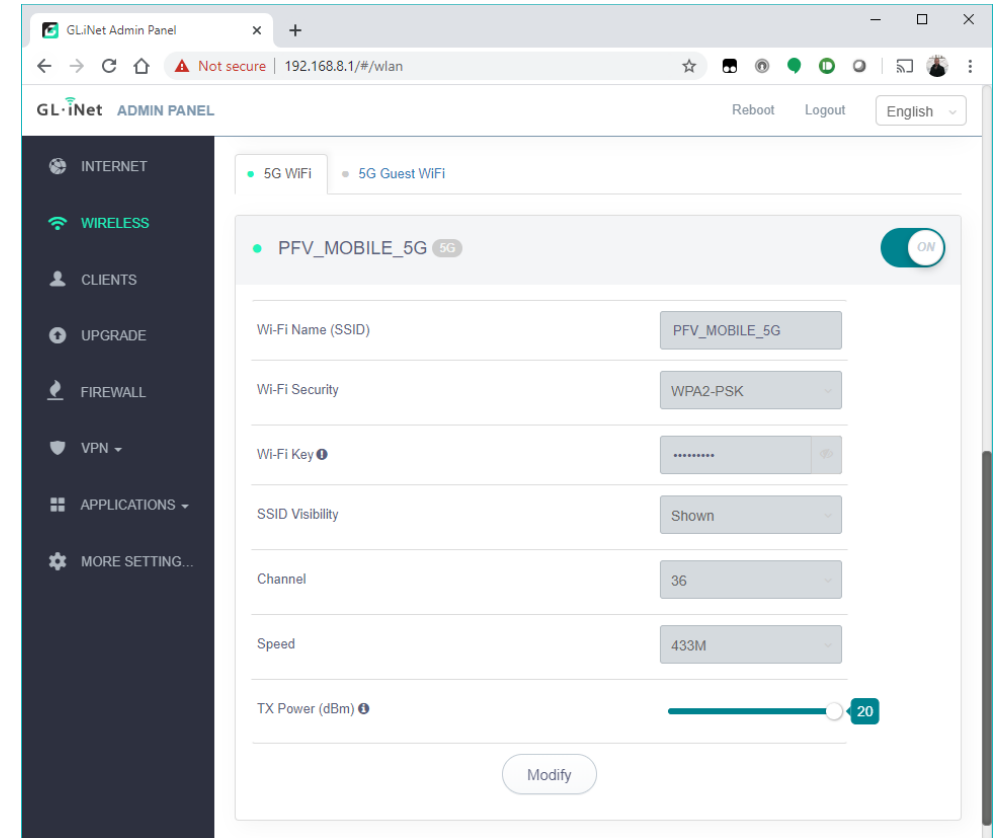




## Set up

- Edit 5G WiFi (and 2.4G WiFi if desired) to have a meaningful SSID and password

i.e. SSID: **PFV\_MOBILE\_5G** password: **pfvmobile**

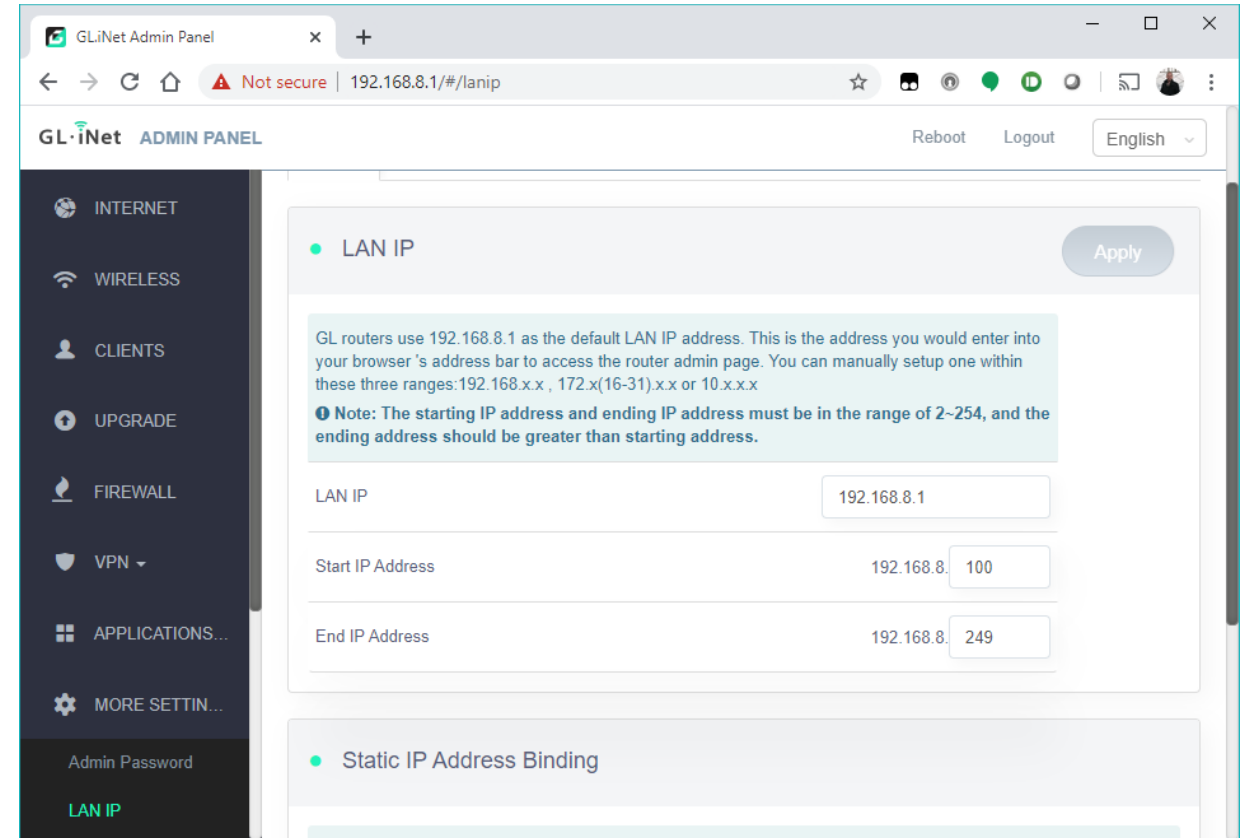


## Set up

- Edit LAN IP to the same range as you high speed camera and PC

i.e. change from default 192.168.8.1 to 192.168.0.2

**Note: 192.168.0.1 is often the default IP address set by PFV for the computer NIC be sure to set WiFi router to a different address to avoid conflict**







Use Open Wrt to configure WAN port to be 3<sup>rd</sup> LAN port

This will allow the device to be used as a switch for up to two cameras

Enter **192.168.8.1/cgi-bin/luci/admin/network/vlan** (default IP) to access advanced configuration menu

VLANs on "switch0"

VLAN ID	CPU (eth0)	LAN 1	LAN 2	WAN	
Port status:	 1000baseT full-duplex	 1000baseT full-duplex	 1000baseT full-duplex	 1000baseT full-duplex	
<input type="text" value="1"/>	<input type="text" value="tagged"/> ▼	<input type="text" value="untagged"/> ▼	<input type="text" value="untagged"/> ▼	<input type="text" value="off"/> ▼	<input type="button" value="Delete"/>
<input type="text" value="2"/>	<input type="text" value="tagged"/> ▼	<input type="text" value="off"/> ▼	<input type="text" value="off"/> ▼	<input type="text" value="untagged"/> ▼	<input type="button" value="Delete"/>



## Switch

The network ports on this device can be combined to several VLANs in which computers can communicate directly with each other. VLANs are often used to separate different network segments. Often there is by default one Uplink port for a connection to the next greater network like the internet and other ports for a local network.

### Switch "switch0"





Enable VLAN functionality ☒

Enable mirroring of incoming packets ☐

Enable mirroring of outgoing packets ☐

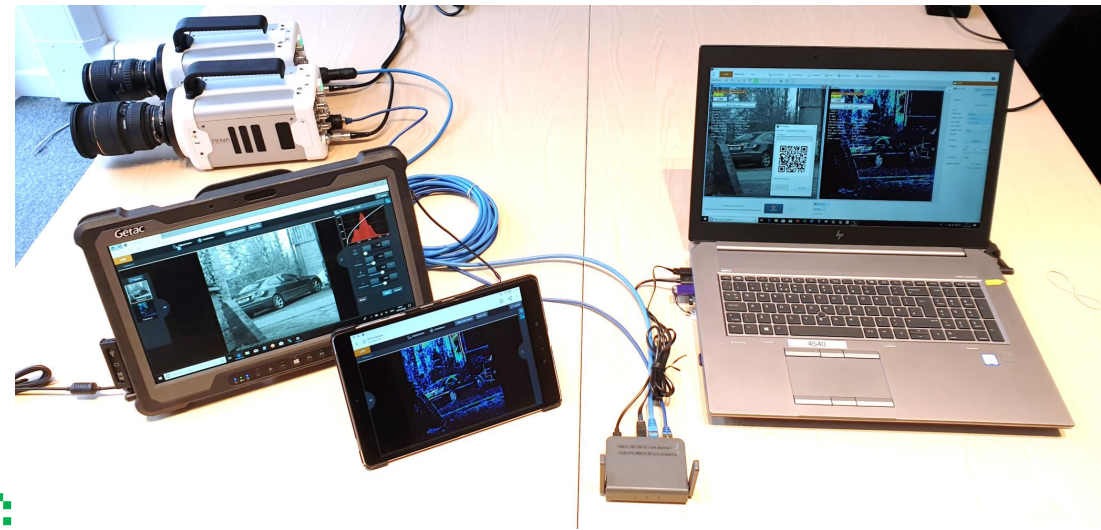
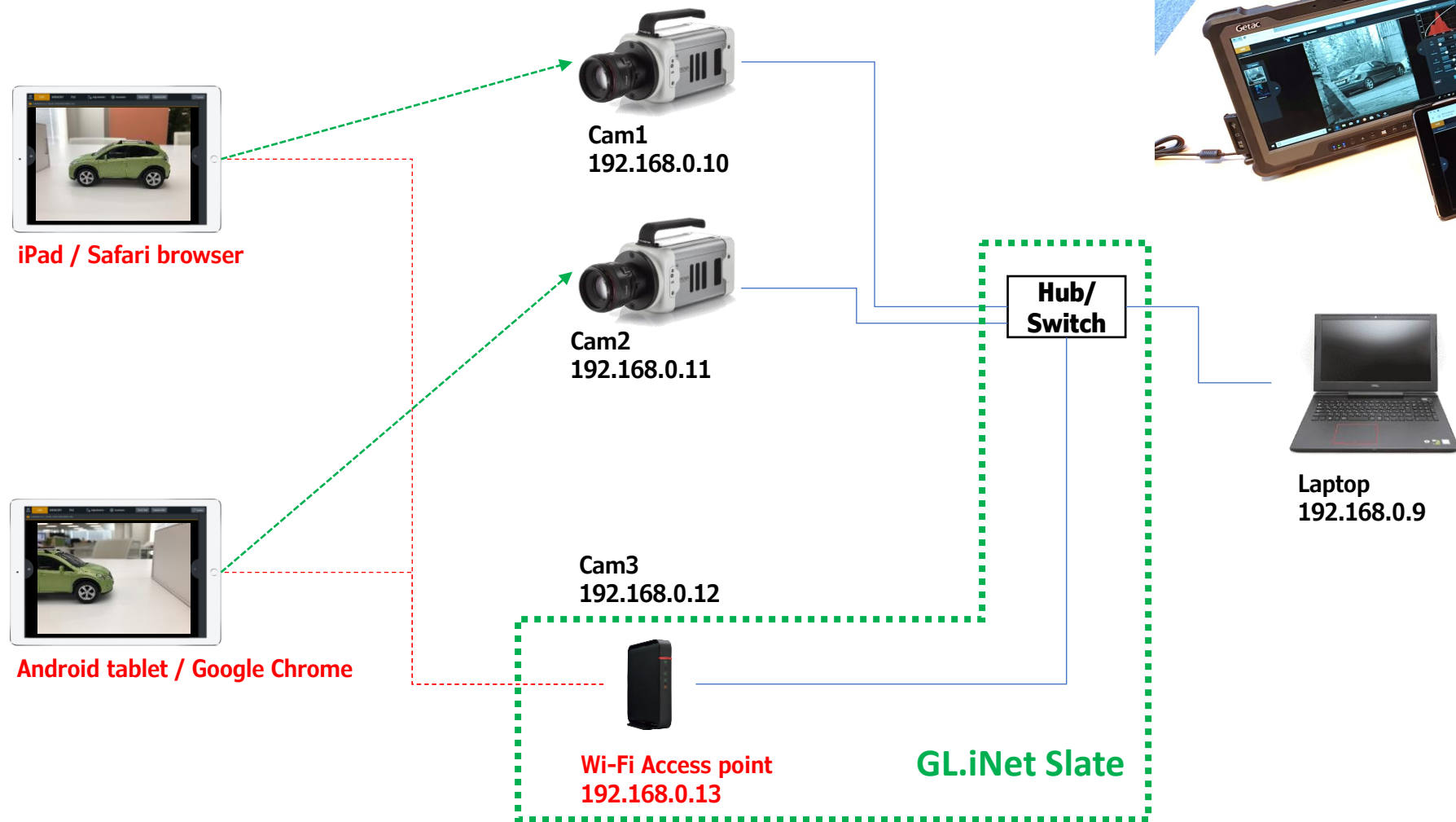
Configuration changed to match LAN 1/LAN 2

### VLANs on "switch0"

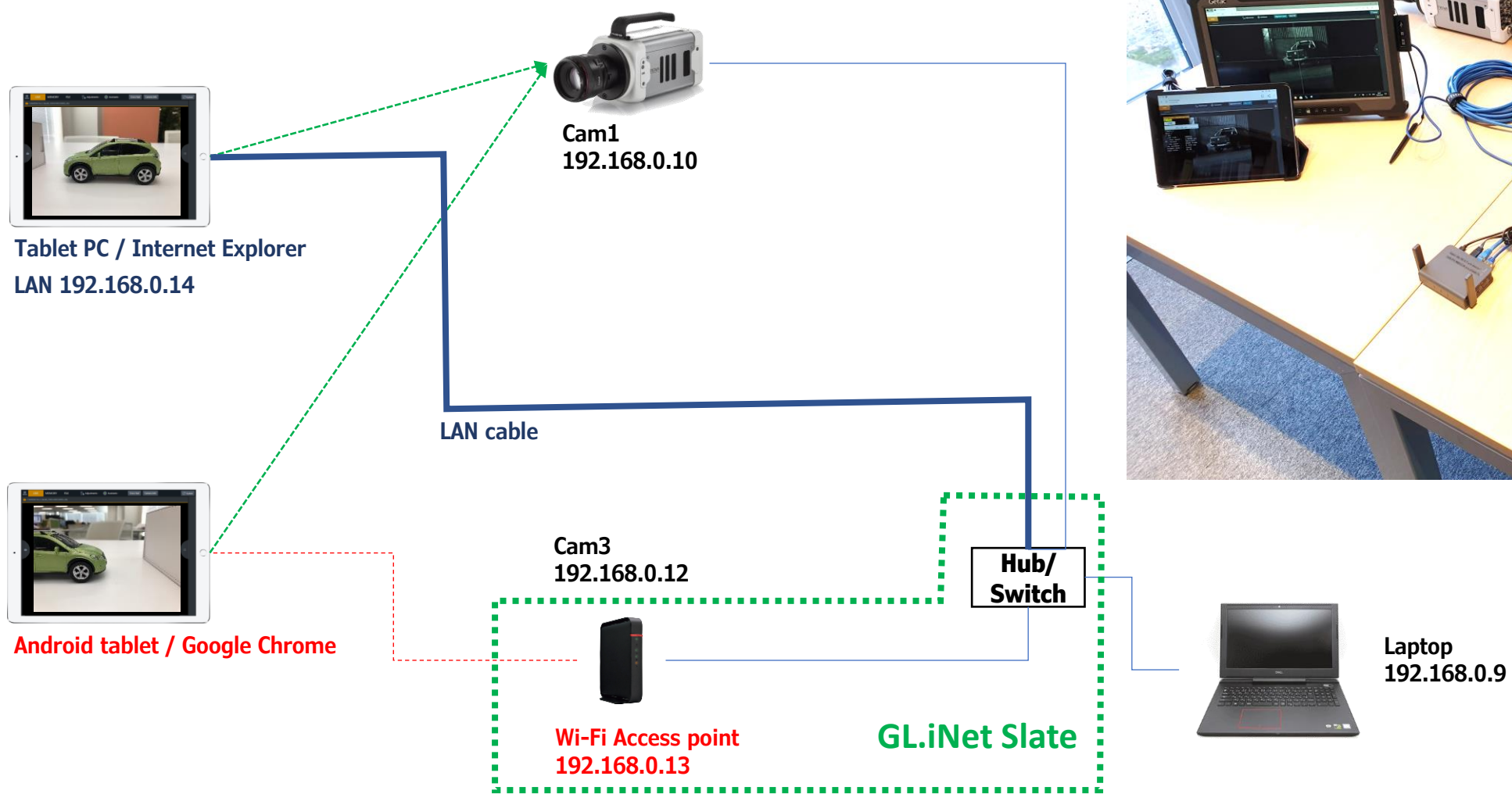
VLAN ID	CPU (eth0)	LAN 1	LAN 2	WAN	
Port status:	 1000baseT full-duplex	 1000baseT full-duplex	 1000baseT full-duplex	 1000baseT full-duplex	
1	tagged ▾	untagged ▾	untagged ▾	untagged ▾	Delete
2	tagged ▾	off ▾	off ▾	off ▾	Delete
<div>Add</div>					
<div>Save &amp; Apply Save Reset</div>					



## Two cameras WiFi connected devices

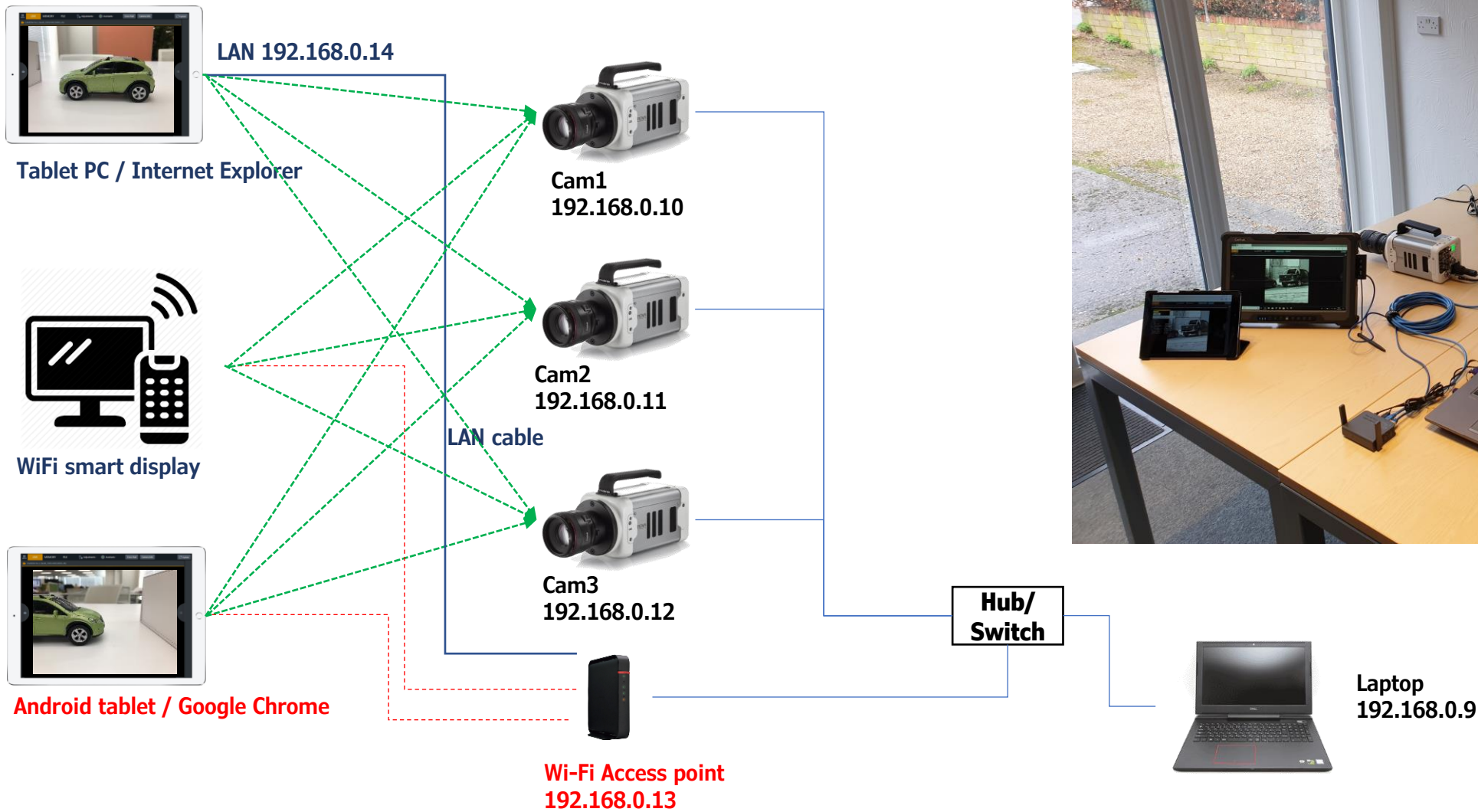


**Combination of WiFi and LAN connected devices**  
LAN provides faster communication and may be used where WiFi is not allowed





Combination of WiFi and LAN connected devices including WiFi enabled smart display located in a control room



**Photron**