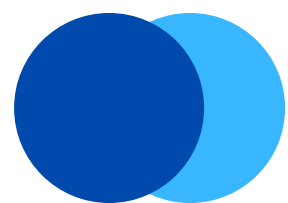




**SPARK**  
**WCAM-2024**

**V2024-1.0.0**



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# The Network ID

NIDs are the mean by which the user can communicate with the device, upon purchasing an IP camera from SPARK, a public IP address will be assigned to that device, using the algorithm on the side the NID is generated and delivered to the user on the manual's first page.



## PYTHON

The main language used for the Configuration web app

```
IP_to_NID.py

def ip_to_network_id(ip_address):
    parts = ip_address.split('.')
    l = []
    l.append(str(int(parts[0]) ^ 15) + "-")
    l.append(hex(int(parts[1]) ^ 0xdead)[2:]+"-")
    l.append(chr(int(parts[2])) + "xx-")
    l.append(int(parts[3])%12)
    network_id = ''
    for i in l:
        network_id += str(i)
    return network_id
```

# WEBIFIED Config Interface



Login

Register

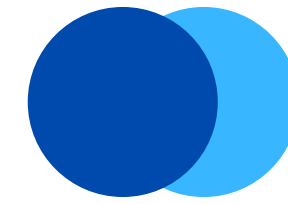
# Written in C

For easy hardware and files manipulations, **C** is used to write to the logs file, configure the device, and do password resets, If you want to get technical you can connect to the specified default port (7005) and communicate directly with the device, your logs and passwords are saved on the device, as for your shots they are saved on the cloud but the links can be found locally.

# CLI config (7005)



# Maintenance and Care



Digital cameras can have problems dealing with moisture, dust, high temperatures, and high humidity. Take care that your camera does not get wet when it is raining, and definitely do not try to operate the camera when your hands are wet because it could result in a malfunction or electric shock. Dust can get on and into your camera on windy days as can sea salt when you go to the beach: both can do bad things. In environments where there are drastic temperature changes, care should be taken because condensation can cause water droplets to form inside the camera.

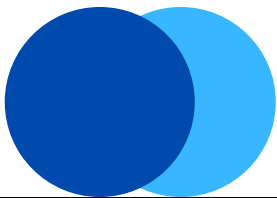
Use of a waterproof case is recommended

By using one of the commercially available waterproof camera cases, you can shoot on rainy days and operate your camera with wet hands. Such cases will also keep dust off and out on windy days and do the same for sea salt at the beach. They also help prevent condensation by easing the temperature changes affecting the camera itself. When in transit on a rainy or windy day, it is a good idea to put your camera in a bag or camera case rather than carrying it exposed.

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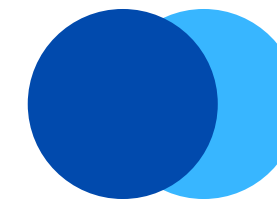
# Troubleshooting



Problem	Possible Cause	Solution
Cameras cannot be discovered by the software.	The camera network settings do not match the overall IP scheme.	Connect the camera to the host computer directly and verify that the IP settings are correct.
	Cameras are not powered on or receiving sufficient power.	Check the camera's power supply. If using PoE+ (Power over Ethernet Plus), ensure that the PoE switch has a sufficient remaining power budget to power the cameras.
The video stream turns gray randomly.	The video stream bit rate exceeds the available network bandwidth.	Adjust the bit rate of the video streams until the gray frames disappear.
Cameras can be discovered by the software, but the software cannot connect to the cameras.	Cameras are connected to a different subnet.	Select the cameras in the network search list, and then select Modify Netinfo to adjust the camera's network settings to ensure the camera is on the same subnet as the host computer.



# Technical Specifications



## Resolution:

Maximum Resolution: 4K Ultra HD (3840 x 2160 pixels)  
Frame Rate: Up to 60 frames per second (fps) at 4K resolution

## Image Sensor:

Sensor Type: High-sensitivity CMOS sensor  
Sensor Size: 1/2.3 inch  
Pixel Size: 1.55  $\mu\text{m}$

## Lens:

Lens Type: High-quality glass lens  
Focal Length: Adjustable  
Field of View (FOV): Wide-angle lens with a FOV of 90 degrees

## Video Streaming:

Video Compression: H.264, H.265  
Video Streaming Resolutions: Supports multiple resolutions including 720p, 1080p, and 4K

## Connectivity:

Interface: USB 3.0  
Plug and Play: Compatible with Windows, macOS, and Linux operating systems  
USB Cable Length: 6 feet (1.8 meters)

## Audio:

Built-in Microphone: Dual omnidirectional microphones for clear audio capture  
Audio Encoding: AAC  
Mounting Options:  
Universal Clip: Adjustable clip for easy mounting on laptops, monitors, or tripods  
Tripod Mount: Standard tripod thread for flexible placement options

## Privacy:

Privacy Shutter: Integrated privacy shutter for added security when the camera is not in use

## Compatibility:

Software Compatibility: Compatible with popular video conferencing software such as Zoom, Skype, Microsoft Teams, and more  
Operating System Compatibility: Works seamlessly with Windows 10, macOS 10.13 and above, and Linux distributions

## Dimensions and Weight:

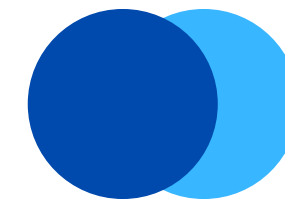
Dimensions (H x W x D): 1.2 x 2.5 x 2.5 inches (30 x 63.5 x 63.5 mm)  
Weight: 3.5 ounces (99 grams)

## Additional Features:

Low-light Performance: Advanced low-light correction for enhanced video quality in dimly lit environments  
Autofocus: Fast and accurate autofocus for sharp and clear video capture  
Customizable Settings: User-friendly software for adjusting settings such as brightness, contrast, and saturation  
Status Indicator: LED indicator to show when the camera is in use



# Warranty Information



## **Limited Warranty Coverage:**

**Duration:** This product, Spark-WCam-2024, is covered by a limited warranty for a period of one (1) year from the date of purchase.

**Coverage:** The warranty covers defects in materials and workmanship under normal use and service. It includes manufacturing defects and malfunctions that occur during the warranty period.

**Exclusions:** The warranty does not cover damages resulting from misuse, accidents, unauthorized modifications, neglect, improper installation, or any other causes not arising from defects in materials or workmanship.

## **Warranty Claim Process:**

**Proof of Purchase:** To initiate a warranty claim, the purchaser must provide a valid proof of purchase, such as a sales receipt or invoice, indicating the date of purchase and the product details.

**Contact Customer Support:** In case of any issues covered by the warranty, the purchaser should contact the authorized dealer or the manufacturer's customer support team. Contact information can usually be found on the product packaging or the manufacturer's website.

**Evaluation and Repair:** Upon receiving a warranty claim, the manufacturer will evaluate the product to determine if the issue is covered by the warranty. If covered, the manufacturer will repair or replace the defective product, at its discretion, free of charge.

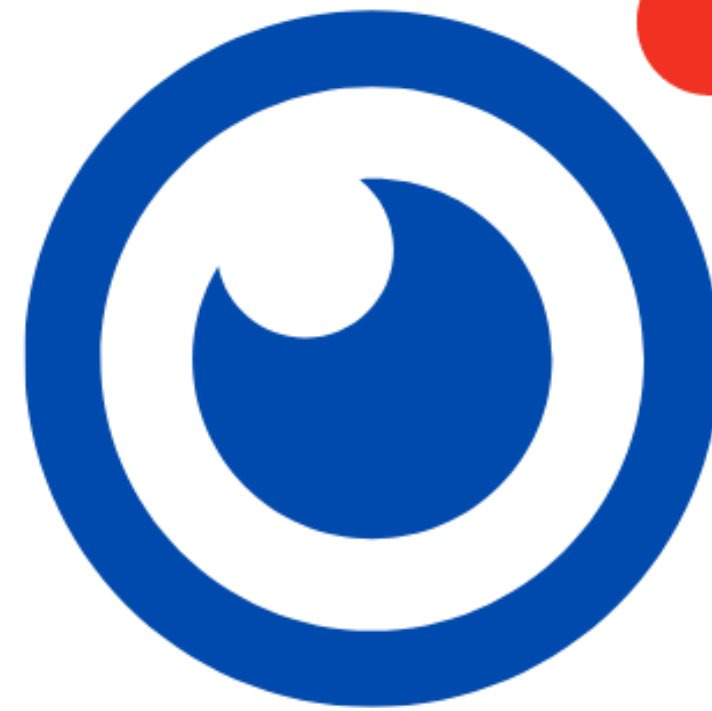
**Return Shipping:** If the product needs to be returned for repair or replacement, the purchaser may be responsible for shipping costs to the designated repair facility. Return shipping costs for the repaired or replaced product will typically be covered by the manufacturer.

## **Limitation of Liability:**

**Extent of Warranty:** The warranty provided herein is the sole and exclusive warranty provided by the manufacturer. There are no other warranties, express or implied, including but not limited to implied warranties of merchantability or fitness for a particular purpose.

**Limitation of Damages:** In no event shall the manufacturer be liable for any incidental, consequential, indirect, special, or punitive damages, or for any loss of profits, revenue, or data arising from the use or inability to use the product, even if advised of the possibility of such damages.

**THANK YOU**  
FOR BELIEVING IN US



**SPARK**  
WCAM-2024