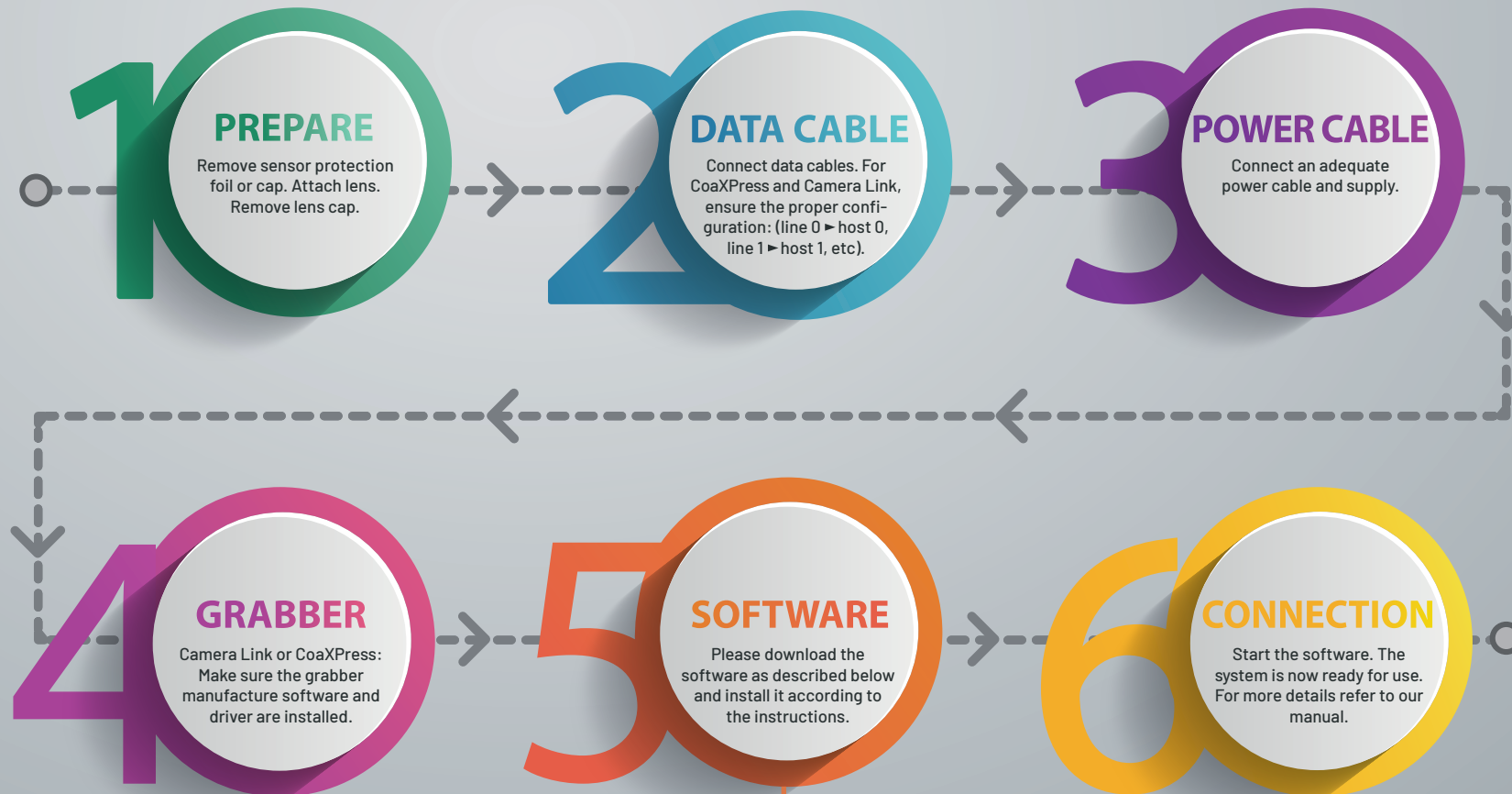


# Step by step to your success.



## DANGER!

### Electric Shock Hazard

Unapproved power supplies can cause an electric shock. Serious injury or death can result. Only use power supplies which meet the Safety Extra Low Voltage (SELV) and Limited Power Source (LPS) requirements. If you use a powered hub or powered switch, they must meet the SELV and LPS requirements.



## WARNING!

### Radio Interference

In a residential environment this equipment may cause radio interference.



## WARNING!

### Fire Hazard

Unapproved power supplies can cause fire and burns. Only use power supplies that meet the Limited Power Source (LPS) requirements. If you use a powered hub or powered switch, they must meet the LPS requirements.



## WARNING!

### Power Supply

Make sure the power supply meets the required specifications. An incorrect power supply will damage the camera.



## CAUTION!

### Allergy Warning

The nickel coating on the camera can cause allergies or allergic reactions. If you already have a nickel allergy, avoid contact. Avoid prolonged skin contact to avoid developing an allergy. Adhere to the applicable health and safety measures.



## NOTICE

### Dust can impair the camera's performance

The camera is supplied with a protective film on the lens mount/holder. To avoid dust accumulation, always put a protective cap on when no lens is attached to the camera. Never apply compressed air to the camera. A lens change is recommended when the camera bracket is facing down.



## NOTICE

### Mount lens with care

When using a screw-on lens, make sure that the back of the lens does not touch the optical components of the camera. Note that there are lenses with non-standard thread depths on the market. This could damage the camera. Avoid over exertion when inserting the lens.



This device complies with part 15 of the FCC Rules and is compliant with Class A digital device of CISPR 32. See manual for terms and conditions.



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**TKH** A TKH TECHNOLOGY COMPANY <

## Contact our Support



## Software Download



For all SVS-Vistek cameras and Mikrotron Machine Vision cameras please use our **Software Download Center**.

<https://svs-vistek.com/en/support/svs-support-download-center.php>

For all Mikrotron Recording cameras, as well as EoSens®1.3CL and EoSens®3.0CL, please contact our support team directly at [support@svs-vistek.com](mailto:support@svs-vistek.com).

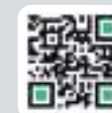
## Visit our Knowledge Base



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SVS-Vistek



Mikrotron

# Quick Start Guide

## 1. Introduction

Find your camera datasheet and specifications at:  
<https://svs-vistek.com/en> or <https://mikrotron.de/en>

## Get the SVS-Vistek and Mikrotron camera software

For all SVS-Vistek cameras and Mikrotron Machine Vision cameras we recommend to download and install the SVS-Vistek SDK software from our website: [www.svs-vistek.com](http://www.svs-vistek.com) (see QR-Code). The SVCam Kit contains all necessary (GenTL-)drivers. The development SDK is included. For all Mikrotron Recording cameras (Quad GigE, Mini GigE, Cube GigE) including EoSens\*1.3CL and EoSens\*3.0CL, please contact our support.

## 2. Precautions

- Please note the following points:
- Warranty is void if the camera housing is opened or the product label removed.
  - Keep the camera housing free of liquid and particles. Operation with inserted foreign objects may cause camera failure or fire.
  - Do not operate the camera near strong electromagnetic fields. Avoid electrostatic charging.
  - Transport the camera in the original packaging only. Do not dispose of the packaging.
  - Start the camera in a clean and dry environment only.

## 3. Operation Environment

Consult the data sheet for temperature specifications of your camera model. Make sure that the operation temperature does not exceed the specifications and ensure proper cooling if needed.

## 4. Connect to Power

The Hirose connector is the preferred method of providing power to the camera. Make sure the power supply meets the specifications according to the Hirose pinout. Additionally, this connector provides access to your I/O lines. If you want to use the integrated strobe control unit, a power supply via the Hirose connector is required.

Some camera models with PoE/PoCXP provide power supply via data cables. Please consult the manual for more information. Always make sure to connect to a power source only after the data cables have been attached properly.



## 5. Camera Interfaces: Camera Link

Camera Link does not support hotplugging. Make sure the camera is not connected to a power source while attaching to a host computer. In case your model has two Camera Link Mini connectors, port A is the master and has to be connected to the master port of your frame grabber. Connect to the power source using the Hirose connector only after the Camera Link connectors have been fixed properly. The SVCam Camera Link cameras comply with the Camera Link® specifications.



## 6. Camera Interfaces: GigE and 10GigE Vision

The camera is connected to the host computer via an RJ-45 socket or M12 ethernet connector, providing connections from 100 Mbps to 10Gbps (model dependant). Make sure your network adapter is configured with jumbo packets enabled to 9014 Bytes (9k).



## 7. Camera Interfaces: 25GigE and 100GigE Vision

The camera has to be connected to the host computer with an optical transceiver module. Please use a SFP28 module in 25GigE cameras to support one channel with 25 Gbps. For 100 GigE cameras a QSFP28 module has to be used for enabling 100 Gbps connectivity.



## 8. Camera Interfaces: USB3

Connect the camera to the host computer with a USB 3.0 micro-B cable. Use high-quality cables only. Driving LED strobe control requires power supply via the Hirose adapter. USB3 cameras with CCD sensor need an Hirose power supply.



## 9. Camera Interfaces: CoaXPRESS

In case your camera has more than one CoaXPRESS line, the order of cable attachment is important. Make sure camera line 0 is attached to grabber line 0, etc., (Start the connection with the highest no. e.g. 3, 2, 1, 0). The connection can also be used to power the camera (Power over CoaXPRESS [PoCXP]). Driving LED strobe control requires power supply via the Hirose adapter.

## 10. Installing and operating the camera

For installing and operating the camera, refer to the documents available at the download center of our homepage.

## 11. Information in the Download Center

Further information can also be found in the SVS-Vistek Download Center:



[www.svs-vistek.com/en/support/svs-support-download-center.php](http://www.svs-vistek.com/en/support/svs-support-download-center.php)



## Cube6 | Mini2 | Mini1

LED status code	Indication
	boot failure (switch off camera and restart)
	powering-up in progress (after power ON 3 sec)
	ready for the first recording after power-up
	circular recording in progress, waiting for stop
	circular recording stopped, waiting for next start

## Cube2

LED status code	Indication
	LED off while new firmware is downloaded
	FPGA configuration failed
	FPGA configuration is in progress
	FPGA configuration done, waiting for commands
	circular recording in progress
	circular recording is stopped

## Quad1.1

LED status code	Indication
	LED off - camera in idle mode
	camera transfers data to PC
	system error
	firmware update
	camera busy

## EoSens\*1.3CL | 3CL

LED status code	Indication
	system is booting
	connection detection in progress, PoC active
	device incompatible, PoC active
	device connected
	device connected, waiting for event (e.g. trigger)
	data being transferred
	system error

## EoSens\*3CXP | 4CXP | 1.1CXP | 2.0CXP | 9.5CXP | 10CXP | 21CXP | Creation1.1CXP |

LED status code	Indication
	system is booting
	powered, but nothing connected*
	connection detection in progress, PoC active
	connection detection in progress, PoC not in use*
	device incompatible, PoC active
	device incompatible, PoC not in use*
	device connected, but no data being transferred
	device connected, waiting for event (e.g. trigger)
	device connected, data being transferred
	connection test packets being sent
	error during data transfer
	compliance test mode enable
	system error

\*not applicable for EoSens9.5

## EoSens\*2.0XGE

LED status code	Indication
	system is booting
	system has booted
	camera in acquisition mode



## Camera Connection Status

The Camera's LED blinking patterns determine the status of the camera connection. The different blinking patterns are described in the chart below.



LED status code	Indication
	nothing connected
	assignment of network address
	network address assigned
	system connected
	streaming channel available
	acquisition enabled
	initialization error
	camera overheating
	waiting for trigger
	exposure active
	readout / FVAL



LED status code	PoCXP	Indication
	yes	system booting
	yes / no	nothing connected
	yes	connection detection
	no	connection detection
	yes	device / host incompatible
	no	device / host incompatible
	yes	PoCXP overcurrent
	yes / no	connected, no data
	yes / no	connected, waiting for event
	yes / no	connected, data transfer
	yes / no	data transfer error (e.g. CRC)
	yes / no	connection test packages
	yes / no	compliance test mode enabled
	yes / no	system error



LED status code	Indication
	USB cable attached
	connected to USB driver
	connected to system
	acquisition start
	acquisition stop
	camera overheating



LED status code	Indication
	system booting
	system ready
	system error

Please read the instructions before use!

# Quick Start Guide

