



# Technical Specifications

## MOBOTIX AI-TECH Video Analytics Apps

### Cyber secure and individual applications

The extremely powerful and cyber-secure MOBOTIX 7 IoT system platform is the core of the MOBOTIX high-end camera series - the ultimate plus flexibility! MOBOTIX 7 includes Certified Apps developed on the basis of artificial intelligence and deep learning, which specifically cover numerous current industry requirements and thus open up completely new areas of application for a surveillance camera.

- All apps can be tested free of charge for 30 days
- Configuration and operation of the apps is done directly via the camera firmware
- Triggering of camera events and other actions by an app via MxMessageSystem
- Interfaces for direct integration of A.I. Tech App Events into the systems of Wavestore and Qognify Cayuga & Occularis
- Integrated web links to access A.I. Tech app documentation and training material directly from the app interface
- All apps meet the highest cyber security requirements
- Apps can be purchased and used individually or as App Bundles



BeyondHumanVision

MOBOTIX

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# MOBOTIX AI-CROWD-DEEP

## Technical Specifications

### Avoid overfilling

The app estimates the number of people in a defined area and can also determine queue situations. It triggers a notification when a defined threshold value is exceeded. AI-CROWD-DEEP also recognizes in real time the compliance with individually configurable minimum distances from people (Social Distancing) and can trigger an alarm in case of non-compliance.

- Estimates the current number of people in the monitored area (indoor/outdoor)
- Detects crowded areas based on a defined threshold
- Real-time monitoring of social distancing policies
- Subject to license, single payment for unlimited use
- Any number of areas can be configured by the user
- Accuracy of more than 90%, even in very crowded environments
- Camera in wall mounting (3 to 8 m height), vertical angle to the persons max. 30°.

# Technical Specifications

## Product Information

Product Name	AI-CROWD-DEEP
Order Code	Mx-APP-AI-CRO-D
Supported MOBOTIX Cameras	Mx-M73A, Mx-S74A
Minimum Camera Firmware	V7.0.6.x
MxManagementCenter Integration	min. MxMC v2.4

## Product Features

App Features	<ul style="list-style-type: none"><li>■ Estimation of number of people within a monitored area (indoor / outdoor)</li><li>■ Identification of overcrowded areas based on a defined threshold</li><li>■ Real-time Monitoring of Social Distance</li><li>■ MOBOTIX events via MxMessageSystem</li><li>■ Statistical analysis via embedded Dashboard</li><li>■ Research via MxMC Smart Data Interface</li></ul>
Meta Data / Statistic formats	JSON, CSV
Trial License	30-day trial license pre-installed
MxMessageSystem supported	Yes
Protocols / Interfaces	TCP, UDP, HTTP, FTP, MQTT Modbus/TCP, POS, E-Mail, AI-Dash Pro, Genetec Security Center, Milestone X-Protect, Hanwha Wave / Smart Security Manager, Network Optix NxWitness, Qognify Cayuga / Occularis, Wavestore VMS, Generic third-party VMS through customizable CGI calls, compare supported camera's interfaces
MOBOTIX Events	Yes
ONVIF Events	*

### Scene requirements

Minimum height of a person	30px@VGA (1/10 of the image height)
Recommended camera installation position	wall mounted
Recommended camera installation height	3 - 8m (depending on min. height of a person)
Maximum vertical angle to the object	30°

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### Technical data

Synchronous / asynchronous app	synchronous
Accuracy	90%
Processed number of frames per second	typ. 2 fps

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\* available with updates in future







# MOBOTIX AI-CROWD-PLUS

## Technical Specifications

### AI-CROWD and AI-OVERCROWD as App Bundle

The App-Bundle with the two single apps AI-CROWD and AI-OVERCROWD can be used in areas where large crowding situations occur and where people are standing or moving slowly. Queuing situations are also recognized in this way. The apps identify one or more areas in the image where the number of people is above a user defined threshold.

- Subject to license, single payment for unlimited use
- Any number of monitoring zones can be defined
- The apps can be used both indoors and outdoors
- The apps achieve an accuracy of over 90%, even in very crowded environments
- Camera must be mounted as high as possible and capture the scene in top view

# Technical Specifications

## Product Information

Product Name	AI-CROWD-PLUS
Order Code	Mx-APP-AI-CROP
Supported MOBOTIX Cameras	Mx-M73A, Mx-S74A
Minimum Camera Firmware	V7.0.6.x
MxManagementCenter Integration	min. MxMC v2.4

## Product Features

App Features	<ul style="list-style-type: none"><li>■ Estimation of number of people within a monitored area (indoor / outdoor)</li><li>■ Identification of overcrowded areas based on a defined threshold</li><li>■ MOBOTIX events via MxMessageSystem</li><li>■ Statistical analysis via embedded Dashboard</li><li>■ Research via MxMC Smart Data Interface</li></ul>
Meta Data / Statistic formats	JSON, CSV
Trial License	30-day trial license pre-installed
MxMessageSystem supported	Yes
Protocols / Interfaces	TCP, UDP, HTTP, FTP, MQTT Modbus/TCP, POS, E-Mail, AI-Dash Pro, Genetec Security Center, Milestone X-Protect, Hanwha Wave / Smart Security Manager, Network Optix NxWitness, Qognify Cayuga / Occularis, Wavestore VMS, Generic third-party VMS through customizable CGI calls, compare supported camera's interfaces
MOBOTIX Events	Yes
ONVIF Events	*



### Scene requirements

Minimum object size	area of min. 200 pixels
Recommended camera installation position	ceiling mounted / overhead
Recommended camera installation height	3m - 5m
Maximum vertical angle to the object	+/- 20°
maximum horizontal angle to the object	+/- 20°

### Technical data

Synchronous / asynchronous app	synchronous
Accuracy	90%
Processed number of frames per second	typ. 15 fps

\* available with updates in future





# MOBOTIX AI-FACEDETECT-DEEP

## Technical Specifications

### Checking face masks & counting people

The video analysis application recognizes human faces in a defined area. AI-FACEDETECT-DEEP can detect both masked and unmasked faces. The app generates an event for a follow-up action when a mask is worn or not, depending on the customer's specific requirements.

The app can also be used to determine the number of people within an area based on the faces captured. AI-FACEDETECT-DEEP is based on artificial intelligence and uses deep neural networks for both face recognition and face classification.

- People counting based on face recognition
- Mask recognition (persons wearing / not wearing a mask)
- Subject to license, single payment for unlimited use
- The app can be used both indoors and outdoors

# Technical Specifications

## Product Information

Product Name	AI-FACEDETECT-DEEP
Order Code	Mx-APP-AI-FD-D
Supported MOBOTIX Cameras	Mx-M73A, Mx-S74A
Minimum Camera Firmware	V7.0.6.x
MxManagementCenter Integration	min. MxMC v2.4

## Product Features

App Features	<ul style="list-style-type: none"><li>■ Detection of faces within the live stream</li><li>■ People counting based on face detection</li><li>■ Detection of persons wearing masks / not wearing masks (e.g. mouth-nose-protection)</li><li>■ MOBOTIX events via MxMessageSystem</li><li>■ Statistical analysis via embedded Dashboard</li><li>■ Research via MxMC Smart Data Interface</li></ul>
Meta Data / Statistic formats	JSON, CSV
Trial License	30-day trial license pre-installed
MxMessageSystem supported	Yes
Protocols / Interfaces	TCP, UDP, HTTP, FTP, MQTT Modbus/TCP, POS, E-Mail, AI-Dash Pro, Genetec Security Center, Milestone X-Protect, Hanwha Wave / Smart Security Manager, Network Optix NxWitness, Qognify Cayuga / Occularis, Wavestore VMS, Generic third-party VMS through customizable CGI calls, compare supported camera's interfaces
MOBOTIX Events	Yes
ONVIF Events	*

### Scene requirements

Minimum object size	30x30 px
Recommended camera installation position	wall-mounted, frontally to the face
Recommended camera installation height	1,80 m

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### Technical data

Synchronous / asynchronous app	synchronous
Accuracy	90%
Processed number of frames per second	typ. 5 fps
Detection time	typ. 200 ms

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\* available with updates in future