

### SENSITIVE AND COMPREHENSIVE

# Kindergartens, schools and universities - special safety requirements

Due to their important function in society, schools and universities have repeatedly been the target of attacks. The primary goal is safety, by keeping uninvited guests away from the school grounds and to allow only authorized visitors. Unfortunately, this is not always enough as vandalism, bullying and violence by or among the students, can also be an everyday part of school life. Of course, early smoke and fire detection are also important components for a safe learning and living environment. Recent events have brought new health protection requirements into focus in which video technology can also provide reliable support in all these areas.

The education sector in particular, with its many young people, sets the bar high for the duty of care. At the same time, these intensive efforts are usually related to the usually limited budgets. The budgets of educational institutions and funding agencies play a decisive role in the implementation of security measures. In public institutions, it is important to handle taxpayers' money responsibly. In private institutions, parents appreciate a careful handling of school fees. For this reason, it is important that funds go into modern technical systems that are particularly sustainable, durable and reliable.



#### MOBOTIX Video Systems are Made in Germany

With an above-average "Mean Time Between Failure" (MTBF) of more than 80,000 hours, the total cost of ownership (TCO) of a MOBOTIX system is reduced to a minimum. Resources for technology support can be saved. Due to their durability and robustness, they are optimized for education and science.



# **SAFETY IN ALL AREAS**

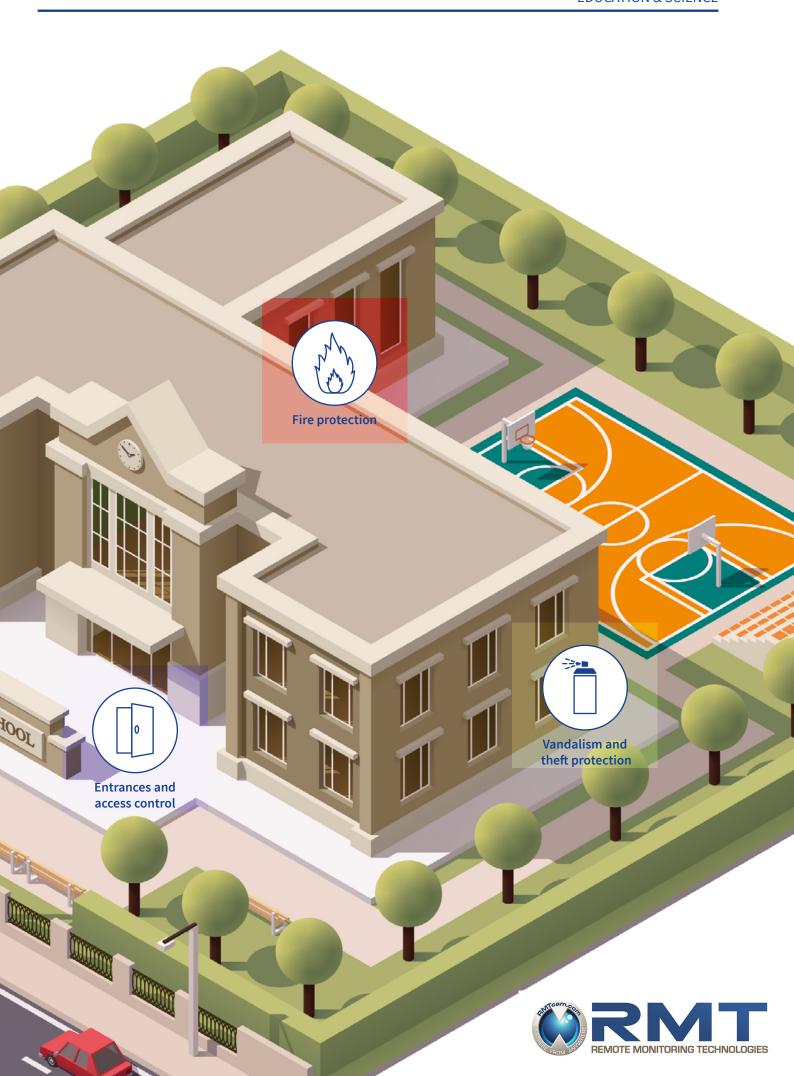
### MOBOTIX technology where it matters

With modern video surveillance technology from MOBOTIX, the aforementioned protection requirements can be fully met.

Cameras with integrated analysis function, additional apps of the MOBOTIX 7 platform and explicit solutions from our MOBOTIX partners ensure that every facility is completely protected in all relevant areas.

1) Entrances and access control









# **Entrances and Access Control**

Equipped with a powerful, high-resolution 360° camera, the MOBOTIX T26 can detect almost all movements and incidents at access points. The hemispheric fisheye optics cover the entire surrounding area without any blind spots.; seamlessly from wall to wall, from floor to ceiling.

An emergency button can be used to establish a direct connection to local law enforcement or emergency personnel and to trigger an announcement. A door station does not necessarily have to be installed at an entrance. It can also effectively detect the surroundings elsewhere (e.g. a corridor) and serve as an emergency call station.

A modular MOBOTIX door station also enables keyless access via RFID transponder. By coupling it to an electronic door control unit, rooms can even be opened even without contact with the door handle.

- Access restriction/access regulation
- Authorization of persons
- Contactless door opening
- Access control (parking management)







## **Rooms and Corridors**

Classrooms and hallways must be reliably monitored both inside and outside of regular operation hours. If suspicious activity is detected, MOBOTIX video systems can contribute directly to resolving the situation by using the integrated microphone and speaker. In addition, events can be triggered, such as closing doors or alarm messages.

MOBOTIX's 360-degree cameras, the c26 Indoor and MOBOTIX Q26 Outdoor provide an optimal overview of a room. The hemispherical coverage is able to capture virtually all areas of a room with only one device. These models are also ideal for live transmission of training and educational events via a password-protected website.



With our broad-based MOBOTIX camera portfolio, you are perfectly equipped for every requirement. In addition to the decentralized IoT camera range, MOBOTIX also offers the classic centrally managed MOBOTIX MOVE camera series. Together with the MOBOTIX MOVE Network Video Recorder (NVR), we offer a plug & play solution that is particularly easy to install and operate. This solution is perfectly suited for local video surveillance systems with up to 24 cameras. Attractive additional benefits include: cost- and license-free MOBOTIX MOVE NVR video management software and the mobile app for iOS and Android, which is also free of charge.







# **Campus and Perimeter Protection**

For outdoor applications, the MOBOTIX M16 and M73 offer several simultaneous sensors in a robust, weatherproof design for visual, day/night, wide-angle or thermal video surveillance applications. The wide range of interchangeable sensor modules can be configured to meet the exact requirements of educational institutions.

Intelligent automation helps to prevent, recognize and prevent dangers: For example, a floodlight could automatically turn on if an unauthorized person enters the campus after business hours. If desired, this can also be combined with an acoustic warning.

#### Integrated analysis functions and apps in the M73 offer further possibilities:



#### **AI-Lost**

Identify the object left behind (e.g. bag)



#### AI-Crowd/Overcrowd

Detection of overcrowding situations



#### **AI-Loitering**

Detection of suspicious persons "loitering" in certain areas



#### **AI-Occupancy/Overoccupancy**

Identifies the occupancy rate in defined areas and detects overcrowded zones.



#### AI-People

Counting people, for example at both entry and exit points



#### **AI-Intrusion PRO**

Perimeter protection, alarm when one or more lines are crossed / burglary protection



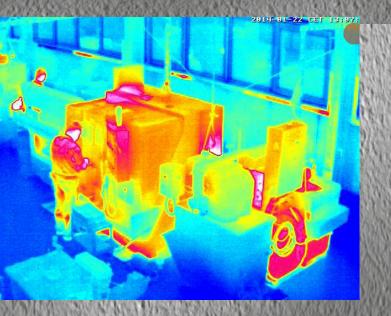
#### **MxActivitySensor Al**

Detect movements of persons and objects with the associated direction of movement. Reliable even with disturbing influences (weather, light, shadow)





S16 Thermal
Unique Dual Thermal Image System. Compact And Flexible.







## **Fire Protection**

No matter the facility, fire and smoke in buildings is a danger to people.

In particularly sensitive areas, the use of MOBOTIX thermal technology can be useful. The video surveillance systems of the Mx6 and MOBOTIX 7 generations can detect temperature irregularities even before flames form. Automatic alarms can also be triggered.

The thermal solutions are particularly interesting for the protection of high-quality equipment or a technical centre. For example, a thermal camera in a server room, a technical room or a laboratory can protect against potential damage. There are several fire-hazardous scenarios where MOBOTIX thermal technology can be utilised, for example problem zones like smoking areas.

The MOBOTIX M73 with the apps of the MOBOTIX 7 platform can reliably support the successful fight against fire and smoke:

#### Al-Fire



Al-Fire detects visible flames indoors and outdoors without thermal imaging. As a "clear image application", the cause of the fire can also be traced if necessary.



#### AI-Smoke

The application detects visible smoke in indoor and outdoor areas without thermal imaging technology







# Vandalism and Theft Protection

In addition to equipment such as whiteboards or PCs, laboratories and specialist departments contain valuable technical devices and equipment that must be protected against theft and destruction.

Faculty and students also bring their personal belongings to the school facilities every day. Large crowds and a constant flow of people makes it impossible for educators, teachers and lecturers alone to supervise them. Professional video surveillance systems can do this much more effectively.

Wherever cameras are mounted visibly and within reach, there is always the danger that these systems may be vandalized. No matter whether damage happens accidentally, purposely, or for the alleged cover-up of a crime, with our antivandalism cameras, assets can be effectively protected and monitored.



The MOBOTIX D26, with its manually adjustable lens, is securely protected against most vandalism under a shock-resistant 1.5 mm polycarbonate dome (IK10). However, even the destruction of a MOBOTIX camera does not automatically destroy its last recordings. The video data can be stored on a network storage device (e.g. MOBOTIX NAS) and accessed via our free MxManagementCenter (MxMC) Software or alternatively your recordings can be stored directly in the MOBOTIX Cloud and reviewed on the web or using our free CLOUD app.



# MOBOTIX CLOUD

Simply Secure. Easy for Sure.





## **MOBOTIX CLOUD**

It's rare for educational and scientific institutions to have a central security centre (Security Desk). Therefore, it's important that access, operation and administration of the systems is simple and flexible.

#### **MOBOTIX CLOUD**

The MOBOTIX CLOUD allows you to access your video systems anytime and anywhere, directly from your desired device, such as a smartphone, tablet or PC. By assigning individual user rights, individual cameras can also be unlocked - e.g. for external security services.

The CLOUD provides easy and flexible access to your video security system. A local server or extensive IT knowledge is not required. The handling is simple. The system can be configured flexibly and is highly scalable.

#### Cyber security with top marks!

MOBOTIX systems are model students in cyber security. This is also a very sensitive topic in schools and universities. MOBOTIX cameras have received many awards for excellent cyber security. The MOBOTIX Cactus Concept sets standards in the video surveillance industry that you can rely on from recognized providers such as SySS, Certified CNPP and Secure By Default and more.

















# Frequently Asked Questions - FAQ

#### How do you effectively monitor larger areas?

Hemispheric cameras with fisheye lenses can overlook entire rooms thanks to the 360 degree field-of-view. With their high resolution (> 5 megapixels) and "dewarping" everything becomes clearly visible. Dewarping is the process of equalizing and converting the image so that the 360 degree view resembles a normal picture.

#### How can we intervene quickly at an "event"?

The integrated bidirectional audio function allows for local announcements and centralized messages. The cameras can also be linked to remote control doors, so that certain events cause them to open or close. Alarms can also be triggered automatically (e.g., fire alarm).

#### Do we need a control room for video surveillance?

The MxManagementCenter video system is a license-free video management software and can be used on any computer via Windows and macOS. The MOBOTIX CLOUD can also be used to access the system easily and from anywhere. This access is scalable and easy to use via a low-cost subscription model.

#### Can we cover outdoor areas safely and effectively?

MOBOTIX cameras comply with protection class IP65, which means they are extremely weatherproof and temperature-resistant. Furthermore, the cameras consume only 5 W (M73: 15 W) of power. They are prepared for wireless connection and have internal storage.

#### The network is already busy. Can we still use high-resolution video surveillance?

With the integrated memory and the efficient MxPEG encoding, the amount of data traffic is drastically reduced. In addition, recordings are only made for individually definable events, which is easy in the network.

# How can we use video surveillance for IT and maintenance despite a lack of resources and know-how? Moreover, our budgets are limited.

MOBOTIX systems are Made in Germany. They are highly reliable. With a "Mean Time Between Failures" (MTBF) of more than 80,000 hours, maintenance and repairs are virtually unnecessary. Due to their durability and robustness, they are predestined for your use in education and science. Setup and installation is carried out by your MOBOTIX partner. Operation via the MxManagemenCenter or the CLOUD is simple and intuitive.



### **Proven in Practice**

#### Global success in education and science

#### Le Collège Épiscopal Saint André de Colmar, FR

The school in Colmar has about 1,500 students and 150 teachers and staff. The aim of using video technology was to reduce vandalism and violence among the students. The entire installation was carried out on site by MOBOTIX partner MILEX. By using 180° panoramic cameras alone, each MOBOTIX system was able to replace two to four former standard surveillance cameras, which made the system much simpler.

The systems are mainly used on the main routes (doors, corridors, staircases, classrooms). In addition, the T25 door station was installed on various doors. Equipped with a digital code and linked to external loudspeakers and an alarm system. A total of 90 cameras were installed, which immediately led to a strong decrease in vandalism.

#### Edmund Rice College, Wollongong AUS

Edmund Rice College is a high school in southwestern Sydney. M15 and D15 cameras were installed in the outside area, while MOBOTIX i25 cameras were used inside. The audio system is used to communicate from the security center with the teachers and students on site.

Thanks to reliable video recordings, the number of cases of bullying and beatings has fallen sharply. In addition, a first case of vandalism could be clarified on the basis of the video recordings. Offenders who destroyed PC keyboards could be identified and held liable. The durability and scalability of the system was important. In addition, the low bandwidth requirements are very much appreciated. The students' work on the computers was at no time slowed down or influenced. Thanks to the Hemispheric technology, it was also possible to achieve greater coverage with fewer cameras.







#### Francis Parker Privatschule, USA

The private school in the USA is attended by more than 1,200 students. On the large 9-hectare campus, the old system frequently triggered false alarms. In view of the many violent events in the USA, the school management therefore decided to use the modern video security system from MOBOTIX. Mainly T25 outstations were installed on the entire campus. Entrances and other areas of the campus were equipped with 44 systems with video intercom function and integrated emergency call button.

In addition, the modules were linked to the school's telephone and PA system, allowing public announcements to be made throughout the campus. It was important for the school to combine the comprehensive monitoring via the hemispheric cameras with a reliable access system and emergency and communication facilities. The MOBOTIX system provided all this in one solution, which had an extremely positive effect on the budget.

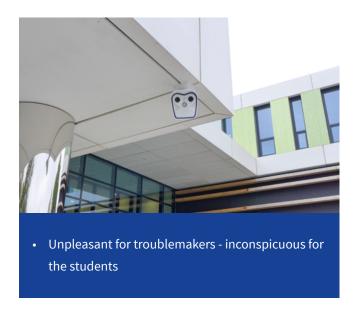
#### Da Vinci College, Roosendaal, NL

The educational institution for pre-vocational training has 3,900 students. In 2017, new buildings with a surface area of 13,500 m² were erected and equipped with very high-quality furnishings. Burglaries and vandalism were to be prevented as well as theft or violent crimes among the students. At the same time, the pleasant learning environment, modelled on a small town, with squares, terraces and a sports hall, was not to be disturbed.

The most important criteria for the systems were quality, durability, low maintenance, service and price. MOBOTIX also presented a small number of cameras that met all requirements. This is ensured by MOBOTIX M15 cameras with day and night sensors outdoors and i25/p25 at central indoor locations. The intuitive operation of the system via the license-free MxManagementCenter was also very easy, which was a great help considering the limited resources in terms of personnel and know-how.



 Multitasking front-door stations as door openers for budget savings







# The Way to Your Customized MOBOTIX Solution

### Discuss, Plan and Ensure Sustainable Benefits

MOBOTIX solutions are sold by qualified distributors, dealers and partners around the world.

Professional MOBOTIX installers and service providers for video surveillance and sector applications have proven expertise. Our partners will work with you to design and implement your intelligent MOBOTIX solution to meet your specific requirements.

#### MOBOTIX – there for you every step of the way... that includes online too!

Of course, we will be happy to help you directly with any questions you may have about your requirements.

- Specific video system solutions for education & science
- Complete overview of the powerful MOBOTIX portfolio
- Free download of brochures and documentation
- Practical examples of MOBOTIX solutions



# Intelligent Video Security Solutions Made in Germany

MOBOTIX offers a comprehensive range of solutions for all aspects of video-based security systems. We develop high-quality, decentralized, energy-efficient systems that mean our customers save money on every MOBOTIX system installed.

Our motto Beyond **Human Vision** is also our mission: MOBOTIX is fully committed to making itself the most reliable company it can be, one that protects people and property by using intelligent, cyber-secure video technology to go beyond human vision.



