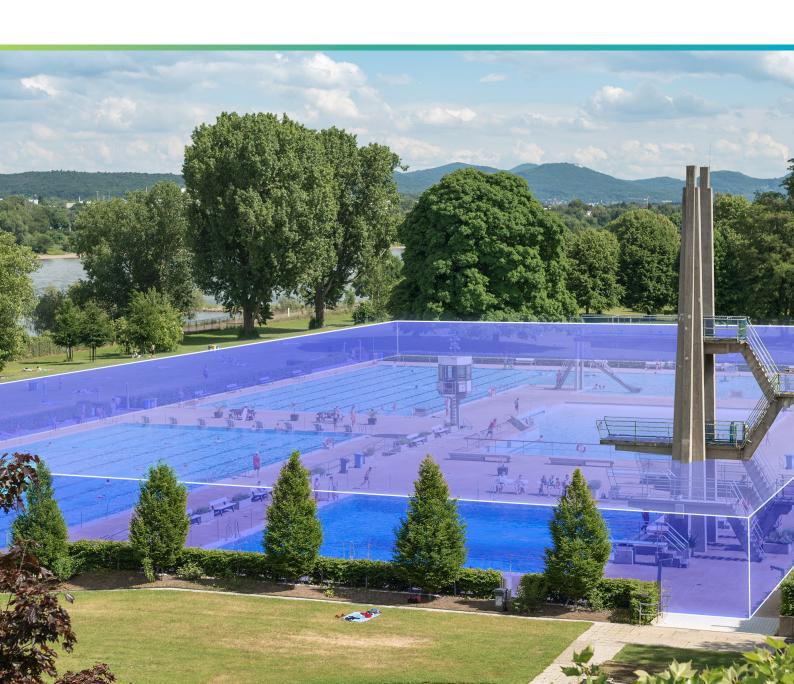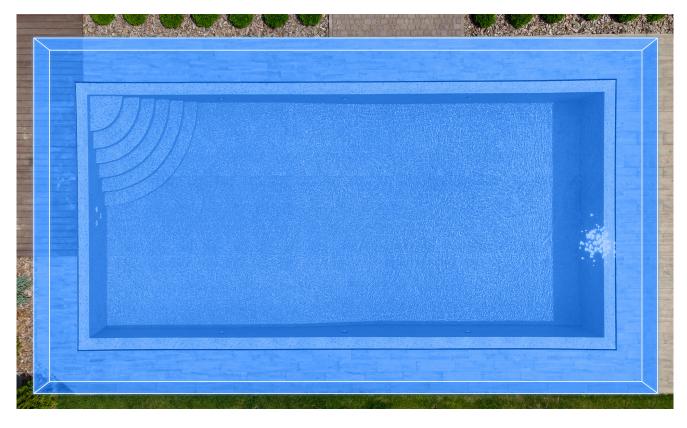# Protecting public swimming pools with Hexagon's 3D Surveillance solutions

Accur8vision as the ideal monitoring solution

The intelligent security system Accur8vision provides perfect protection for monitoring public swimming pools. By designing individual protection zones, specific areas such as swimming pools and entrance areas can be monitored. Using LiDAR, the application of conventional security cameras is not necessary, which brings certain advantages.

The protection of public swimming pools

To protect public facilities such as public swimming pools, Hexagon's intelligent and innovative 3D Surveillance solutions are perfectly suited to provide reliable protection around the clock.

Not only should a public swimming pool have reliable surveillance during the day when it is open, but also outside of regular opening hours given that break-ins mainly take place at night-time. Perimetric fences can easily be broken through, which leaves it open for vandalism to take place. Such incidents could be fatal as well, as people could fall into the pool and qualified security personnel would not have enough time to react.
Accordingly, there is a need for a suitable security solution that can provide a reliable all-round protection and trigger the alarm immediately.

Another aspect regarding the monitoring of public swimming pools is the issue of data protection. Not everyone agrees to having their personal data recorded and in some countries the recording of such data is even prohibited. Conventional surveillance cameras collect biometric data from people and can process it. Therefore, a different method of surveillance must be applied.

The solution is a security system that immediately detects intruders and triggers an alarm without the use of cameras. Accur8vision is an intelligent and innovative surveillance system that utilizes lidars for perimetric and volumetric detection. Lidars are able to capture intruders with a point cloud visualization without biometric data being stored.

Why are 3D Surveillance's security solutions particularly suitable for monitoring public swimming pools?

- No collection of biometric data:
  While conventional surveillance systems monitor and record the environment with cameras, Accur8vision can exclusively utilize LiDARS without the addition of a camera. The protected area is guarded by LiDARS, and the detected individuals are displayed as point cloud data in the system. By using LiDARS, no biometric data can be captured – which in turn is in line with possible national data protection regulations.

- Volumetric security system:
  Accur8vision surveillance software is a volumetric security system that uses LiDAR sensors to detect intruders. Unlike conventional systems that usually only monitor perimeters, Accur8vision protects the entire area of a controlled space. Thus, it can be precisely specified that in a public swimming pool, not only the entrance of the pool, but the entire entrance area up to the pool can be volumetrically protected.

- Design of virtual zones:
  To precisely determine which area is to be protected, Accur8vision uses different types of zones to fit the needs of the client. Thus, one or more 3-dimensional zones can be designed in Accur8vision, which take over the function of a virtual protective fence. These zones can be adjusted to the respective needs with centimetre precision. Also, a special feature in the design of zones is that certain areas in the protection zone, such as vegetation, can be omitted.

- Accurate information about the intruder:
  If an intruder enters the guarded area, for example, breaks through the fence of a public swimming pool and moves within the area - Accur8vision will immediately receive information about the exact position, size, and speed of the intruder. The trajectory of the intruder's movement can also be seen.

- Remote control:
  The Accur8vision smart security system can be easily controlled remotely. An alarm is immediately received by the system operator in real time and the alarm signals are simultaneously transmitted to the control panel of the municipal facilities. Consequently, there is no need for operator or additional security personnel on site.

How exactly does 3D Surveillance's Accur8vision security solution work to protect a public swimming pool?

Before using Accur8vision software, it is beneficial to measure and scan the protected area of the public swimming pool in advance. This can be done using handheld Leica scanners or drones, which accurately scan the area to produce a 3D map that can deployed into Accur8vision.

After a 3D map of the environment is created, a virtual LiDAR can be placed in Accur8vision to simulate the capabilities of an actual lidar. This allows the user to virtually select in advance exactly where and to what extent one or more LiDARs should be placed in the pool.

Once the virtual LiDARs are placed, the next step is to manually mount and install them in the swimming pool. The user can then use Accur8vision to define virtual 3D protection zones. These can be customized in height and scope, and alarm events can also be set up.

The protected areas in the swimming pool are thus defined and the swimming pool can now be monitored around the clock.

If an unauthorised person enters a public swimming pool, Hexagon's intelligent surveillance solution can detect the intruder using LiDAR and process data anonymously.

Accur8vision - intelligent monitoring in public swimming pools

Accur8vision can contribute to the safety of public swimming pools by providing perimetric and volumetric protection of the entire pool area.

Predefined areas within the swimming pool can be protected through the delineation of zones and utilizing LiDARs.

In the event of an intrusion, an alarm is immediately triggered, and security personnel will be notified straightway. Compared to cameras, LiDARs do not store any biometric data, which makes them the perfect device for the use in public swimming pools when the recording of personal data is either not wanted or not allowed due to national regualtions .

Learn more about Hexagon 3D Surveillance
3dsurveillance.hexagon.com