COMPANY PROFILE

2022

DEVELOPING & MANUFACTURING
INTELLIGENT VIDEO MONITORING SOLUTIONS

SAFE AND SMART CITY
STADIUM
AIRPORT
BORDER
TRAFFIC
CRITICAL INFRASTRUCTURE
Logipix Technical Development Ltd. is a privately held company established in 1996 in Budapest, Hungary. Since then, Logipix has grown into an international company that it is today. We are among the most innovative technological companies in the world, developing and manufacturing intelligent video monitoring solutions specifically for large-scale projects and wide areas. Logipix believes, serving the needs of customers efficiently can only be successful if they receive complete solutions. In order to achieve this, we design and create all the critical components to our systems, including hardware, software and embedded computer vision. Our entire product range is developed and manufactured in Hungary in accordance with the highest quality requirements.

We are proud that we stand among the leading pioneers in this ever-evolving market. Our company is deeply engaged with the constant research and development to provide complete, intelligent solutions using the latest microelectronic and computer technology available, while considering the various characteristics of different application areas.

ENGINEERING COMPETENCIES

- Mechanical and Thermal Design
- Artificial Intelligence and Video Content Analysis Development
- Embedded Software Development
- Application Software Development
- Electronics Design
- Optical Design
- Chip Design

WELCOME TO OUR BUSINESS

KEY FIGURES

50+ engineers 3 branch offices: United States New-Delhi, Dubai 12X revenue growth over the past 5 years
### Our Story

**1996**
- Developing and Manufacturing Access Control Systems until 2007
  - Company was established
  - IP-based Access Controller
  - Time and Attendance software
  - Walk-DVR Mobile Video Recorder

**2007**
- Developing and Manufacturing IP Camera Systems
  - 9.1 MP box IP camera
  - First high-resolution IP cameras at the price of analog cameras
  - 1st generation Network Video Recorder
  - Control Center VMS

**2012**
- Logipix Stadium Video Surveillance Solution
  - 15 MP box IP camera
  - 150 MP Panorama Camera
  - Full HD PTZ
  - Enterprise Network Video Recorder
  - Control Center with stadium extension

**2015**
- Logipix Traffic Violation Detection Solution
  - 14 MP, 20 fps 1" sensor Logipix ONE camera family
  - Logipix IR Flash
  - 2nd generation Network Video Recorder, rack mounted

**2016**
- Logipix Safe & Smart City Solution
  - 20 MP, 20 fps 1" sensor Logipix ONE camera family
  - 200 MP Panorama Camera
  - 6 MP PTZ

**2017**
- Logipix Airport Video Monitoring Solution
  - 200 MP Panorama with self-cleaning system
  - 6 MP Laser PTZ

**2018**
- Logipix Border Surveillance Solution
  - 320 MP Panorama Camera
  - 3rd generation Network Video Recorder
  - Long range double-head PTZ
  - VCA features
    - Automatic detection of human objects from 3 km
    - Multiple object tracking

**2019**
- Logipix Critical Infrastructure Solution
  - Multi-level detection
  - Automatic warnings and alarms
  - Perimeter protection

- Logipix Airside Augmented Reality Solution
  - 4th generation Network Video Recorder
  - VCA: LND & TOF registration / Object tracking and classification / Geofencing & Virtual fence / Automatic traffic enforcement
  - Real Time Decision Making Support
  - LAARS software package

**2020 - 2021**
- Logipix Airside Augmented Reality Solution
  - VCA: Situational awareness (collision prediction) / FOD detection
  - 300 MP Panorama Camera

**2022**
- Logipix Airside Augmented Reality Solution
  - Turnaround Management

- Logipix Border Surveillance Solution
  - 320 MP + 6 MP Dual Vision Panorama

- Vehicle Solution
  - Vehicle mounted single sensor thermal camera
  - Vehicle mounted 120 MP Panorama Camera
  - Vehicle mounted Dual Vision Panorama
COMPANY PROFILE 2022

TECHNOLOGIES THAT MAKE US UNIQUE

PANORAMA TECHNOLOGY

4K or even higher resolution video technology has become common in video surveillance nowadays. But when it comes to monitoring large scale areas their coverage capabilities are nothing compared to the efficiency of high-end panorama cameras. Logipix developed a leading-edge, multi-sensor panoramic technology, providing 200-320 MP image resolutions with 20 fps video stream and the display technology that makes it possible to seamlessly utilize the full resolution during monitoring.

We developed a unique stitching technology that geometrically merges images at the image borders resulting in a contiguous panoramic image just as if it were taken by a single sensor camera. All the grouped sensors take their images synchronized, which ensures a glitch free display throughout the whole panoramic image. Thanks to the special stitching technology zooming and panning are seamless at the stitching borders as too.

COMPUTER VISION TECHNOLOGIES

Artificial Intelligence is gaining more and more ground in video surveillance these days. Logipix is among the leading pioneers who determine the future if this industry. We create high-end systems that relies on not just extreme high resolutions, but advanced computer vision technologies.

That is how our cameras have evolved further and have become intelligent visual data sensors. We developed embedded Video Content Analysis algorithms which detect, classify and track different types of objects and are also able to automatically perceive complex situations based on motion behavior and motion prediction analyzes.
SENSOR FUSION

Logipix engineered a special technology whereby the information of the image sensor and external sensors can be fused. Sensor Fusion results in a more accurate analysis as algorithms can rely on a broader spectrum of reality. The extreme high-resolution visible-light data can be augmented by thermal sensor data or the data of integrated surveillance radars.

SPECIAL IPU TECHNOLOGY

We can take advantage of full control over image processing as we design our own Image Processing Unit. By logically distributing the available computing capacity of the IPU we can maximize the efficiency of image enhancement and embedded Video Content Analysis algorithms.
LOGIPIX AIRSIDE AUGMENTED REALITY SOLUTION

- Intelligent airside video monitoring and ground handling management support using advanced computer vision technologies
- Monitoring with 200-320 MP Panorama Cameras
- VCA-based detection, classification and tracking of both cooperative and non-cooperative objects
- Increased situational awareness
- Geofencing and Virtual fence functions with applied airside rules
- Automatic ground traffic enforcement
- Automatic LND & TOF registration
- Augmented reality layers on the Graphic User Interface
- Informational object labels, detailed object list and interactive map
- Object status based archive search
- Monitoring turnaround processes aided by automatic VCA functions and interactive timeline
- Multi-department access
- Remote maintenance, built-in self-cleaning and de-icing systems for hardware components

Learn more about the Logipix Airside Augmented Reality Solution:
LOGIPIX BORDER SURVEILLANCE SOLUTION

- Virtual wall built of thousands of megapixels and advanced computer vision technologies
- 200-960 MP panoramic video streams with 20 fps
- Dual Vision Panorama Camera with thermal camera module for clear vision during night and in challenging environmental conditions like smoke, dust, haze and fog
- VCA-based object detection, classification and tracking
- Automatic detection of human targets from 3 kilometers away
- Automatic zoom functions and tracking zoom windows
- Accurate geopositioning of the detected objects
- Interactive map and detailed object list
- Interoperating with third-party surveillance systems
- Full functionality over low-bandwidth network
- Hardware components are available made by marine grade materials
- Remote maintenance, built-in self-cleaning and de-icing systems for hardware components

Learn more about the Logipix Border Surveillance Solution:
Keep stadium crowds under surveillance before, after and during events

Providing a resolution level that is high enough to identify all spectators in and around the venue

High-resolution coverage of the entire seating area with only a few 120-300 MP Virtual Panorama Cameras

PTZ and Panorama camera cross-mapping that makes it possible to control PTZ cameras selecting the area of interest on the panoramic image

Advanced zoom functions to seamlessly track individuals

High structural flexibility in order to best adapt to any stadium environment, and easy rearrangement of the Virtual Panorama in case of future stadium expansion.

Specially developed features to overcome challenging environmental factors like hazy weather or disturbing lens flares caused by stadium reflectors

Stadium Event Management with dual system configuration

Aging storage technology, which prolongs storage periods by periodically reducing the frame rate of the stored footage
LOGIPIX TRAFFIC VIOLATION DETECTION SOLUTION

- Automatic, Video Content Analysis based detection of various types of traffic violations
- Image-based traffic counting
- Custom scale system from a few intersections to city-wide projects
- Complete, automated workflow from violation detection to compiling detailed violation packages, wherein only violation verification requires human resources
- Processing even hundred thousands of violations daily
- Accurate violation detection 24/7
- High-end 20 MP traffic cameras for multi-lane coverage
- On-site operation with outdoor NVR, capability for standalone operation
- Integrated ANPR and connected vehicle databases
- Operator activity and violation processing status monitoring

Learn more about the Logipix Traffic Violation Detection Solution:
High-end video surveillance solution to protect critical infrastructure facilities from external and internal threats

- Monitoring with 200-320 MP Panorama Cameras
- VCA-based object detection, classification and tracking
- VCA-based intrusion detection for perimeter protection

- Accurate geopositioning of the detected objects
- Geofencing and Virtual fence functions with applied airside rules
- Automatic internal traffic enforcement
- Increased situational awareness
- Interactive map and detailed object list

- Interoperating with third-party surveillance systems
- Possibility for PIDS integration, which can trigger automatic zoom functions
- Remote maintenance, built-in self-cleaning and de-icing systems for hardware components

Learn more about the Logipix Critical Infrastructure Video Surveillance Solution
Multi-purpose solution to simultaneously fulfill traffic violation detection and city video surveillance tasks
Flexible system structure that quickly adapts to future city developments
Automatic, Video Content Analysis based detection of various types of traffic violations
Image-based traffic counting
Complete, automated workflow from violation detection to compiling detailed violation packages, wherein only violation verification requires human resources

- Accurate violation detection 24/7
- High-end 20 MP traffic cameras, which cover not only the traffic lanes but their broader surrounding area too
- 200 MP Panorama Cameras to effectively monitor parks and squares
- Recognizable faces in all lighting conditions
- VCA-based detection of abandoned objects and vandalism
The Logipix solutions were created to meet the special requirements of individual application areas.

- We design panorama cameras with hundreds of megapixels resolution and high fps to provide the best quality video.

- Logipix Computer Vision Technologies, which include Artificial Intelligence, Video Content Analysis and Augmented Reality features make video monitoring and surveillance more efficient and automatic.

- Our devices are developed and manufactured to operate with high MTBF in even extreme outdoor environments and conditions.

- The Logipix end-to-end solutions can do more with less resources. The Logipix Panorama Cameras can replace dozens of 4K CCTV cameras, ensure transparent monitor profiles and increase spatial orientation for operators within the monitored area.

- Logipix engineers develop leading-edge technologies that ensure our systems avoid both physical and technological obsolescence for a long time.

- All of our components are developed and manufactured in Hungary with the highest quality standards.

- The whole Logipix system installation procedure is fast and uncomplicated.

- Logipix developed a complete remote maintenance system that helps both preventive and corrective maintenance. Physical maintenance is also effortless as the high-end Logipix components have a self-cleaning system. Cleaning procedures can be scheduled and started automatically.

Learn more at www.logipix.com