

**WELCOME TO MPLEX**

Year 2024

**Mplex**

*Your satisfaction always our pride*



# We Are...



- **Today 22 years** since established in 2002
- Started as general supplies trader, to designing, fabricating & commissioning **Specialised Mixing- Automation System**
- Supplied to the Semicon, Pharmaceutical, Chemical, Energy, E&E and Media industries
- Awarded **patent** for Chemical Mixing System (2017)
- Obtained **Pioneer Status** since 2021
- ISO 9001 certified
- A LMW licensed company



# Vision, Mission, and Values

Your satisfaction always our pride

**Vision:** To be the globally trusted leader in cutting-edge automation for our customers

**Mission:** Empowering customers with innovative, reliable, and cost-effective automation solutions that enhance efficiency, unleash creativity, and accelerate growth

**Values: BOLEH!**

- **Breakthrough** – Believe in the power of innovation and the courage to challenge the status quo
- **Operational Excellence** – Continuously drive improvement, deliver exceptional quality, and set high standards in everything we do
- **Leadership** – Foster an environment where optimism, collaboration, and a constructive mindset are the driving forces behind our leadership
- **Enchanting customers** – Build lasting relationships, earn trust, and be the brand that consistently delights the customers we serve
- **Have fun** - Cultivate a dynamic and engaging workplace that encourages a healthy work-life balance

# The Leadership Team

Effective and interdisciplinary teamwork



**Dr. Vincent Ang**  
Managing Director

Founder of the company  
Doctorate Degree in Business Administration  
More than 20 years of experience in chemical engineering industry

**Loh Lin Lin**  
Finance Manager

More than 20 years of experience with extensive knowledge of auditing, accounting and payroll processes.  
She holds a degree in Business IT and is well-equipped to handle all aspects of financial management.

**Alan Lim**  
Sr. General Manager

More than 25 years of global experience.  
He holds a Master's degree in Electrical Engineering and has authored 11 technical publications in control engineering, automation solutions, and factory continuous improvement & optimization.

**Andrew Ang**  
Ops General Manager

More than 15 years of experience in the business world.  
He has a Master of Business Administration and is knowledgeable in business applications, sales development, documentation as well as operation management.

**MK Ung**  
Eng. & R&D Director

More than 20 years of experience in the engineering design and manufacturing field.  
He is knowledgeable in variety of instrumental, control system, programming, circuit design and simulation.

**KB Ong**  
Engineering Manager

More than 20 years of experience in the Automation field.  
Expert in mechanical design and production processes.  
He has been a driving force in developing new and innovative ways to streamline manufacturing.

**Mohd. Azwani**  
Asst. Eng. Manager

Excels in mechatronics with specializations in PLC programming and circuit design. His proficiency in automation processes, robotics, and system integration amplifies his capacity to effectively lead a team of engineers under his guidance.

**Norliza**  
Branch Manager

With over 10 years of professional experience in engineering design, production processes, and the manufacturing field, she holds a degree in mechanical design.

# Strategic Partners



*Channel Partner*



*Authorised Partner*



*Asia Pacific Authorized Dealer*



*AI Partner*



*Software Partner*



*Cloud Computing Partner*



*System Integrator & Certified Excellence*

# Members of Alliances



*Value Industry Partner*



# Our Core Products & Services



# MPLEX Roles in Chemical Automation

Your one stop shop for chemical automation solutions

1

## FLUID & CHEMICAL HANDLING EXPERT

Niche problem solver, we're here to help you succeed

2

## WE UNDERSTAND CONTAMINATION

Clean room application and high purity

3

## TAILOR-MADE SOLUTIONS

Ultimately serving specific needs

4

## HOLISTIC SOLUTIONS

Complete systems that address all aspects of your needs



- Mixing
- Dispensing
- Spraying
- Cleaning
- Distribution



# Niche Application Provider

We specialize in designing, manufacturing, and installing industrial fluid control systems

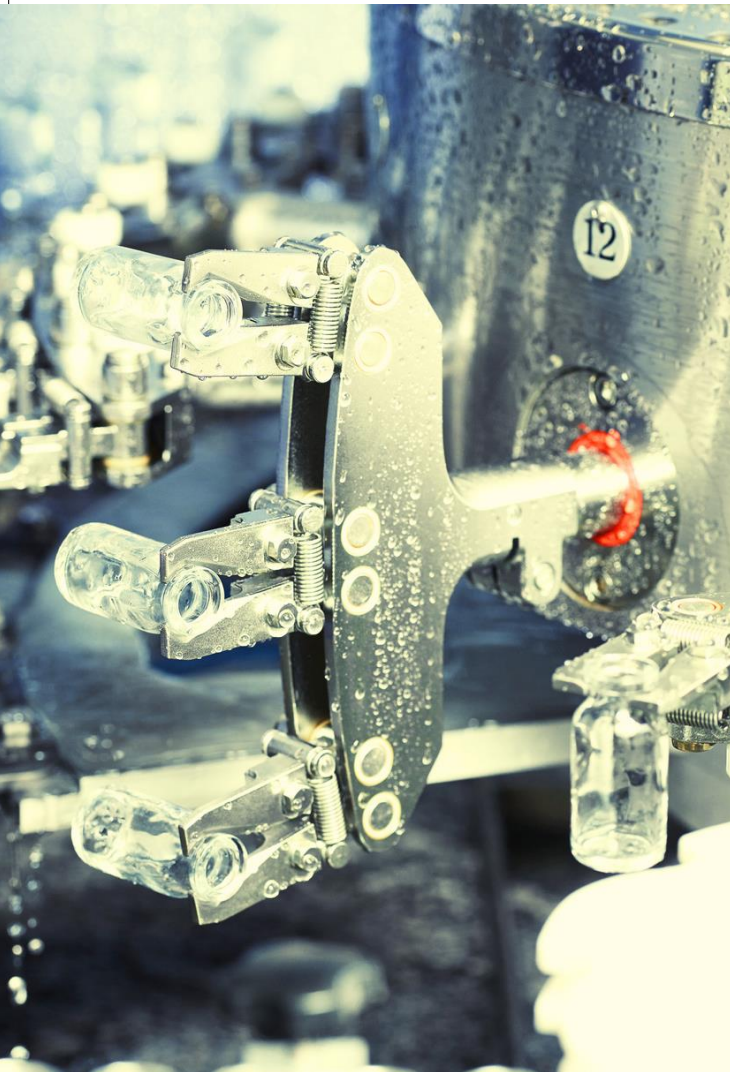
1

MIXING



2

CLEANING



3

SPRAYING



4

DISPENSING



5

DISTRIBUTION



# Products – iMIX Series (2007 – 2023)

Proven solutions for chemical processes



E&E Industry – Solar Mfg



Medical Industry














E&E Industry – Memory Mfg



E&E Industry – Wafer Mfg

# iMIX Series – Pioneering Solutions for a Global Market



-  United States
-  China
-  Germany
-  South Korea
-  India
-  Japan
-  Philippines
-  Malaysia
-  Thailand
-  Singapore
-  Australia

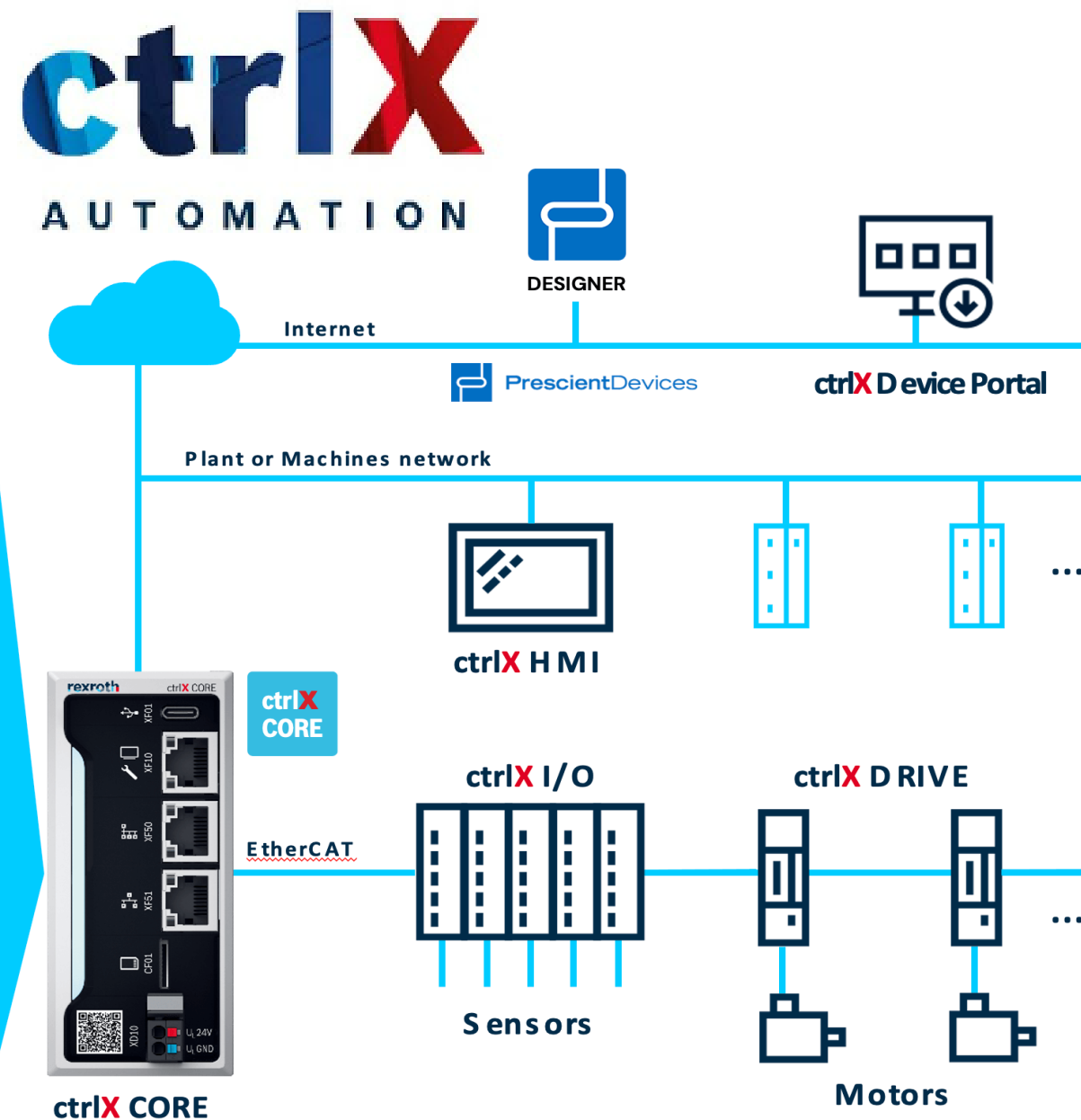
# SMART MANUFACTURING LINE (SML)



# SML Automation Design Framework

Unlock limitless possibilities with open architecture

- ctrlX CORE Apps**
- ctrlX PLC & COM**
  - PLC
  - Ether CAT
  - OPC UA
- ctrlX HMI**
  - Web HMI
- User APP**
  - Data Layer
  - EDGE
- ctrlX IOT**
  - IoT Gateway
  - VPN
  - Firewall



# SML Automation Design Framework

Unlock limitless possibilities with open architecture



**Kassow Robots**

**Cobots with 7 axes**

Example: SFK-H with Smart Flex Effector (SFE)  
by Rexroth and gripper (Schunk)



**Smart Function Kit**



**Dual End Effector**



**WELDING**



**PACKAGING &  
PALLETIZING**



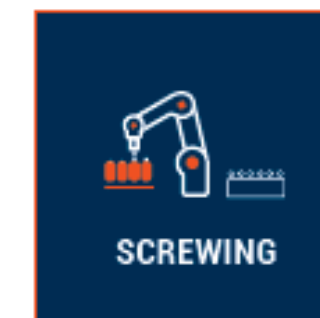
**CNC &  
MACHINE TENDING**



**PICK & PLACE**



**QUALITY  
INSPECTION**



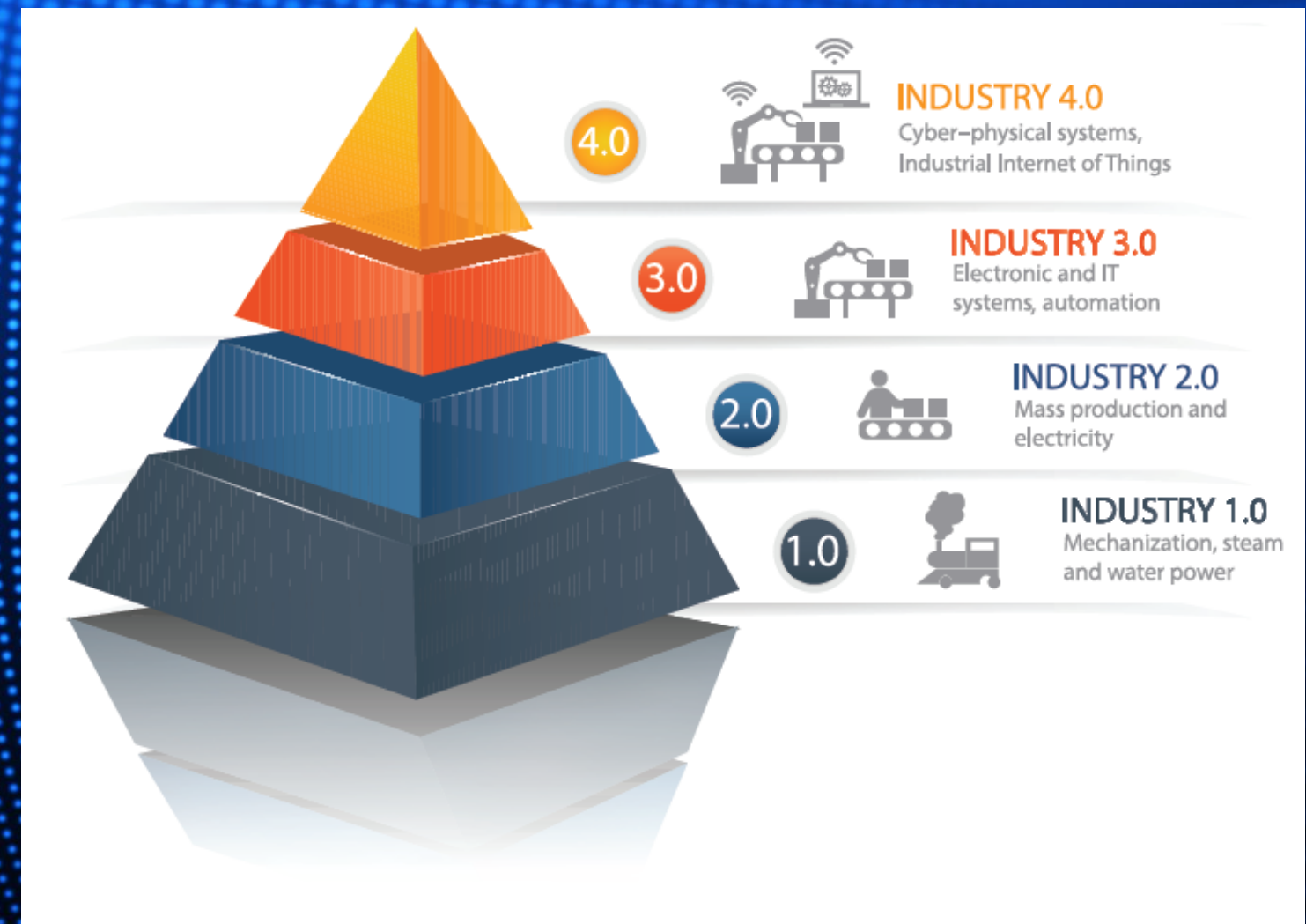
**SCREWING**



**LABELLING**



**DISPENSING**



# INDUSTRY 4.0/ INTERNET OF THINGS (IoT)

# Industry 4.0/ IoT (Internet of Things)

Power workplace of the future: a hub of efficiency, productivity, and innovation



## Current Focus Areas:



Object Location & Movement  
Tracking/ Monitoring



Workplace Safety/Security/  
Environment/ Emergency &  
Health Monitoring



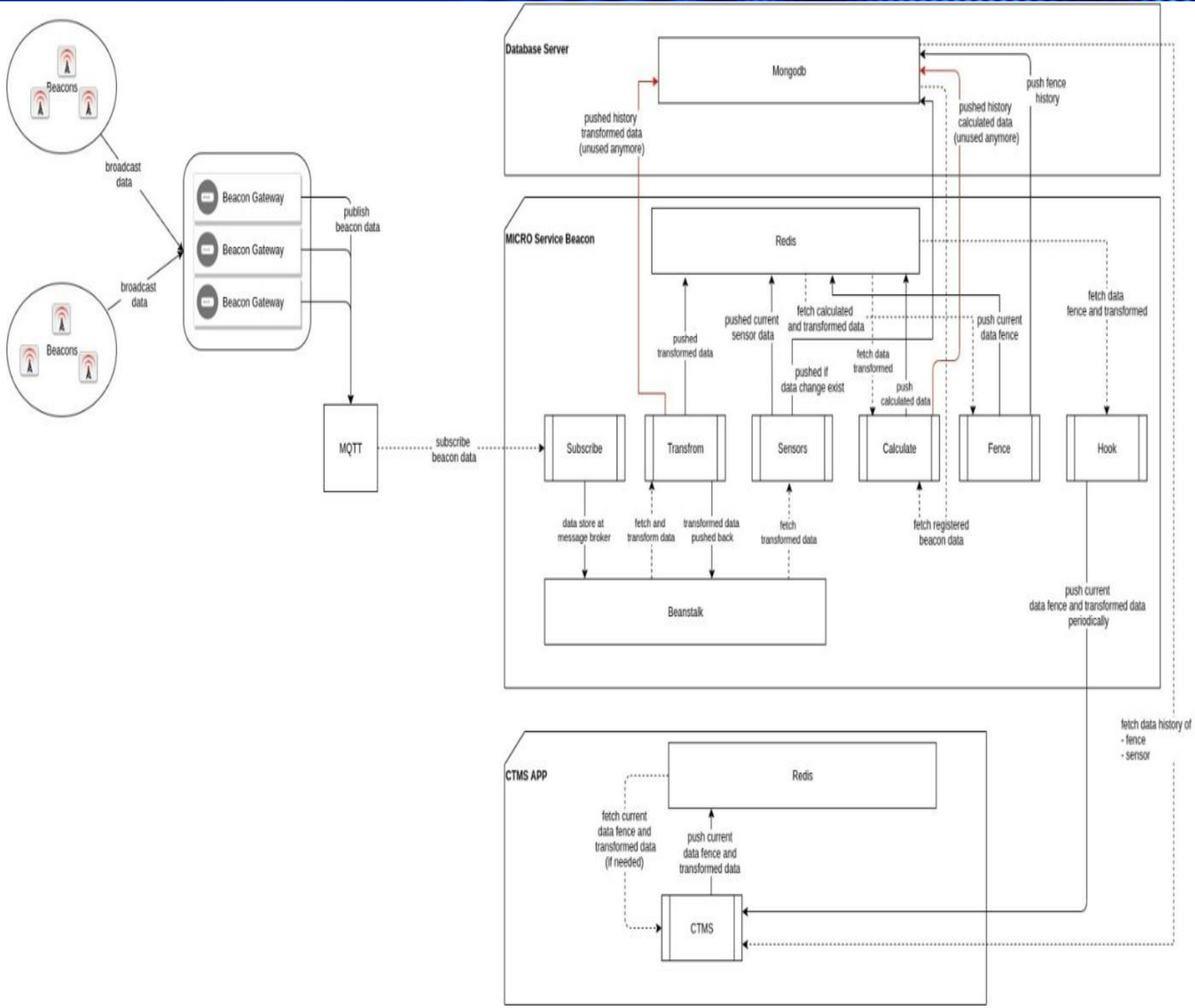
Intelligent Controls (Data &  
Video Analytics/ Automated  
actions)

*\* Bluetooth Low Energy (BLE), a wireless Personal Area Network designed for Low Energy Consumption and short-range communication (up to 100 meters)*



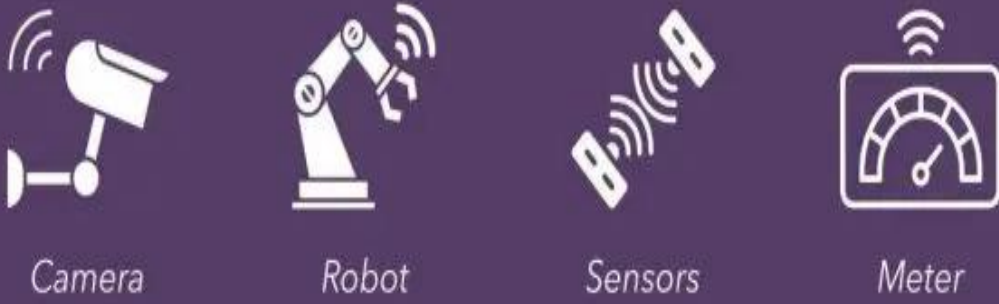
# IoT (Internet of Things) Automation Framework

From edge to cloud, architect the connected IoT



## Perception Layer

*"Devices" layer*



## Transport Layer

*"Data Comm" layer*



## Processing Layer

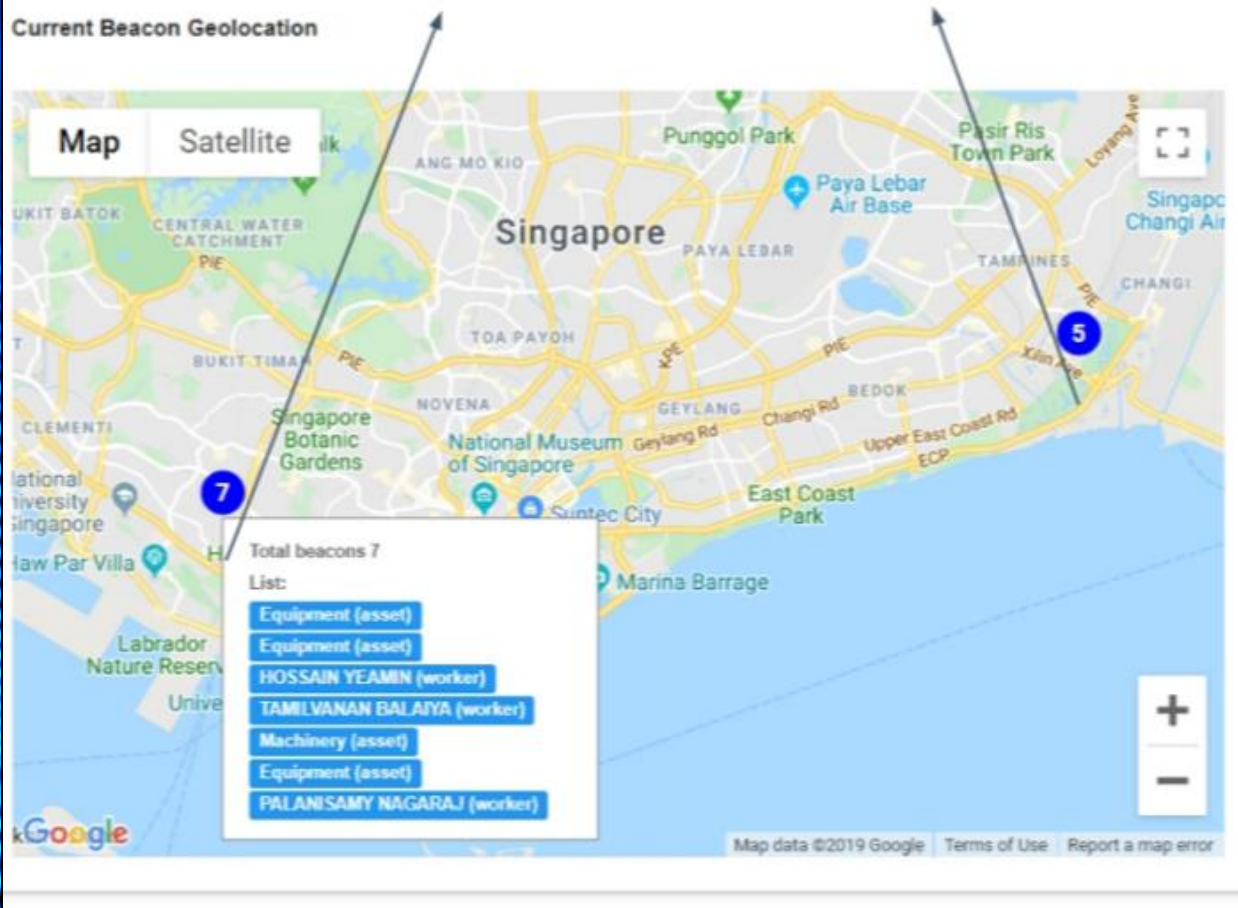


## Application Layer



# IoT Possible Application – Object Tracking & Monitoring

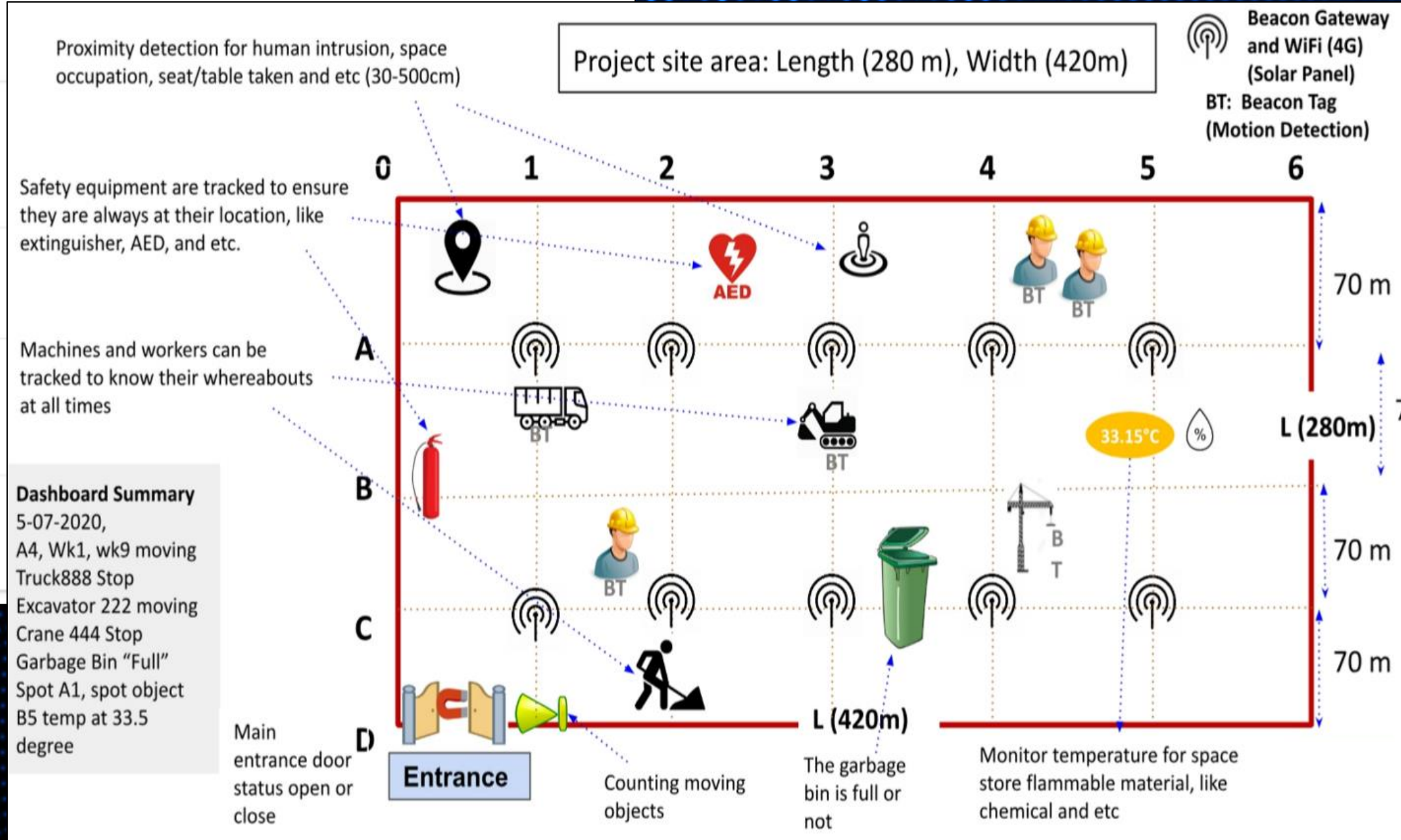
Beacon gateway detect presence of workers and assets at 2 project locations with real time information.



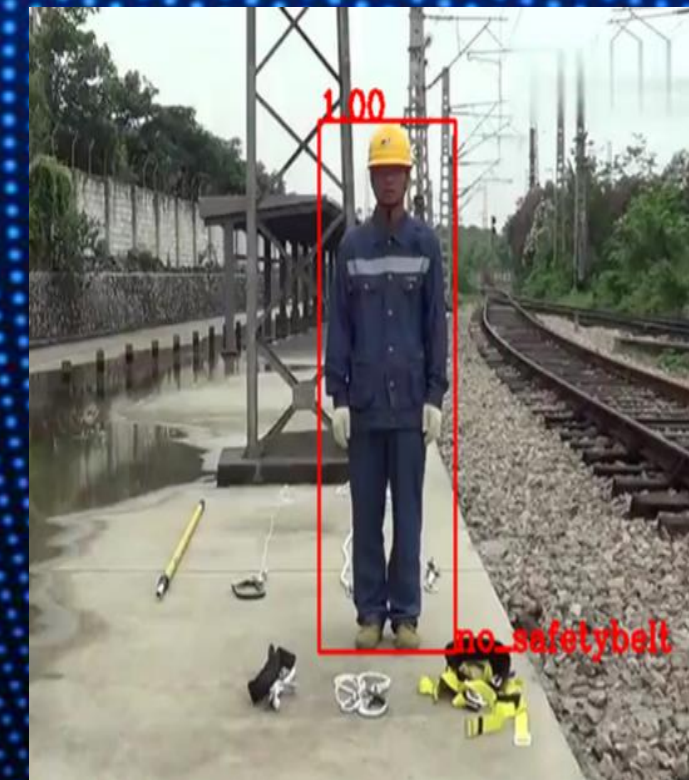
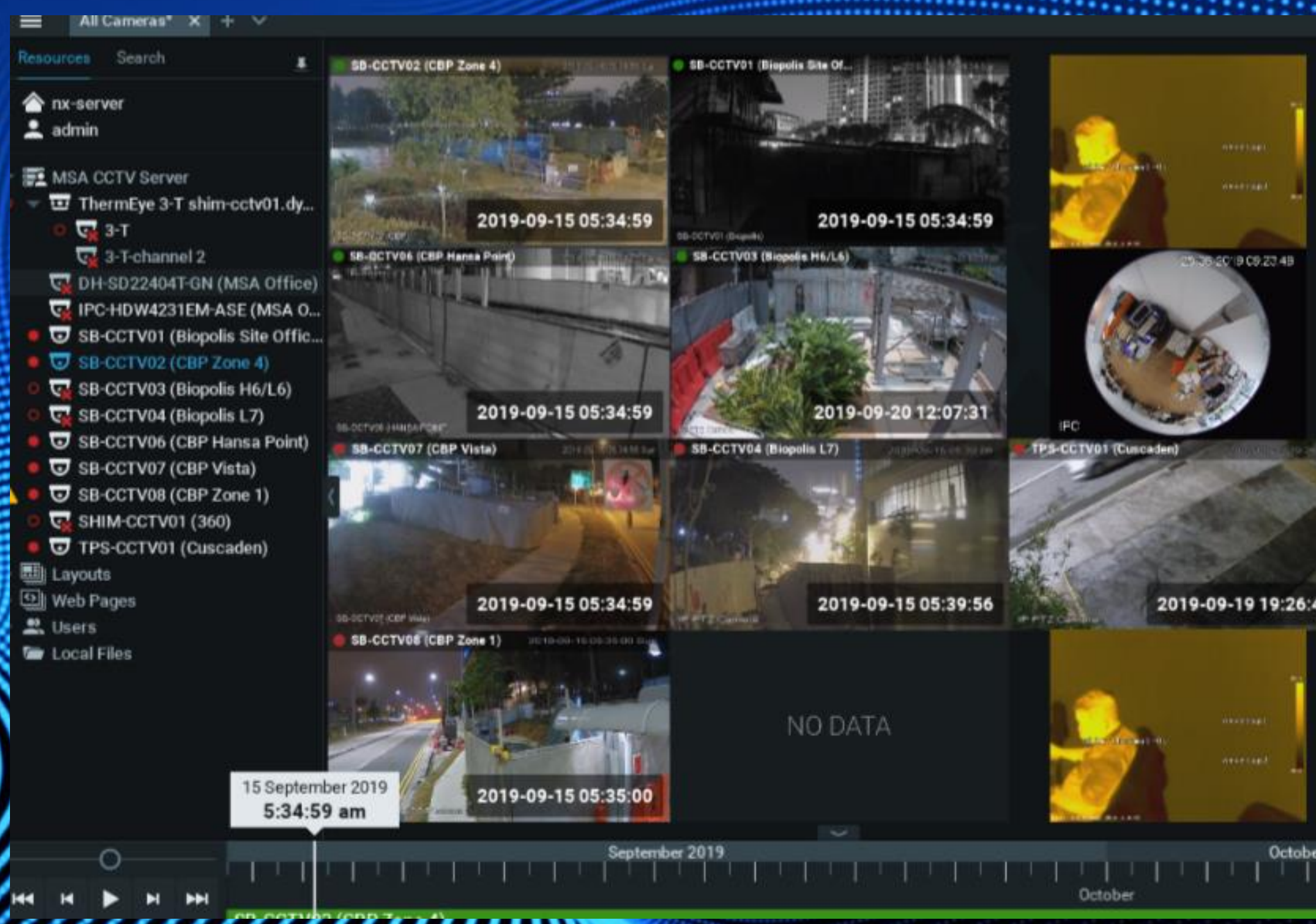
**Beacon History**

Search Subject ...

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Timestamp	11/13/2019 08:37:38
Beacon ID	0C61CFC14BB8
Timestamp	11/13/2019 08:37:33
Beacon ID	0C61CFC14A04
Timestamp	11/13/2019 08:37:33
Beacon ID	0081F9862701
Timestamp	



# IoT Possible Application – Data & Video Analytics for Pattern Recognition & Automated Actions



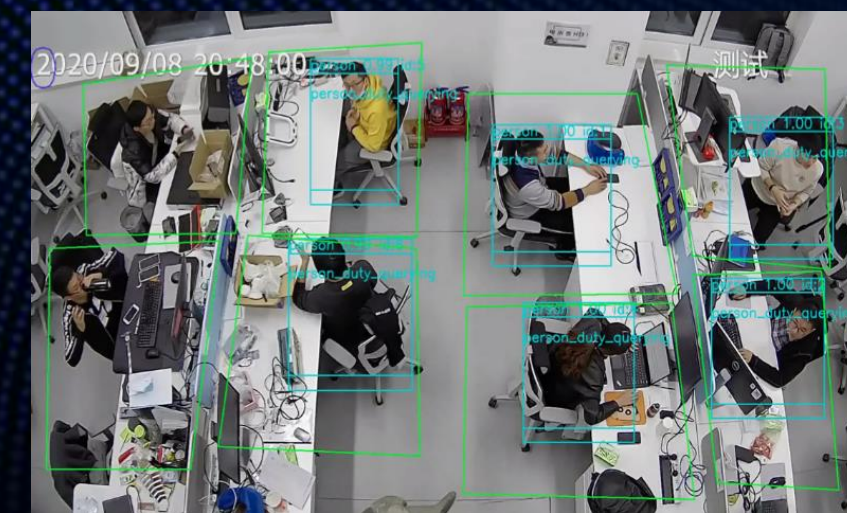
No vest



Smoking



Fire



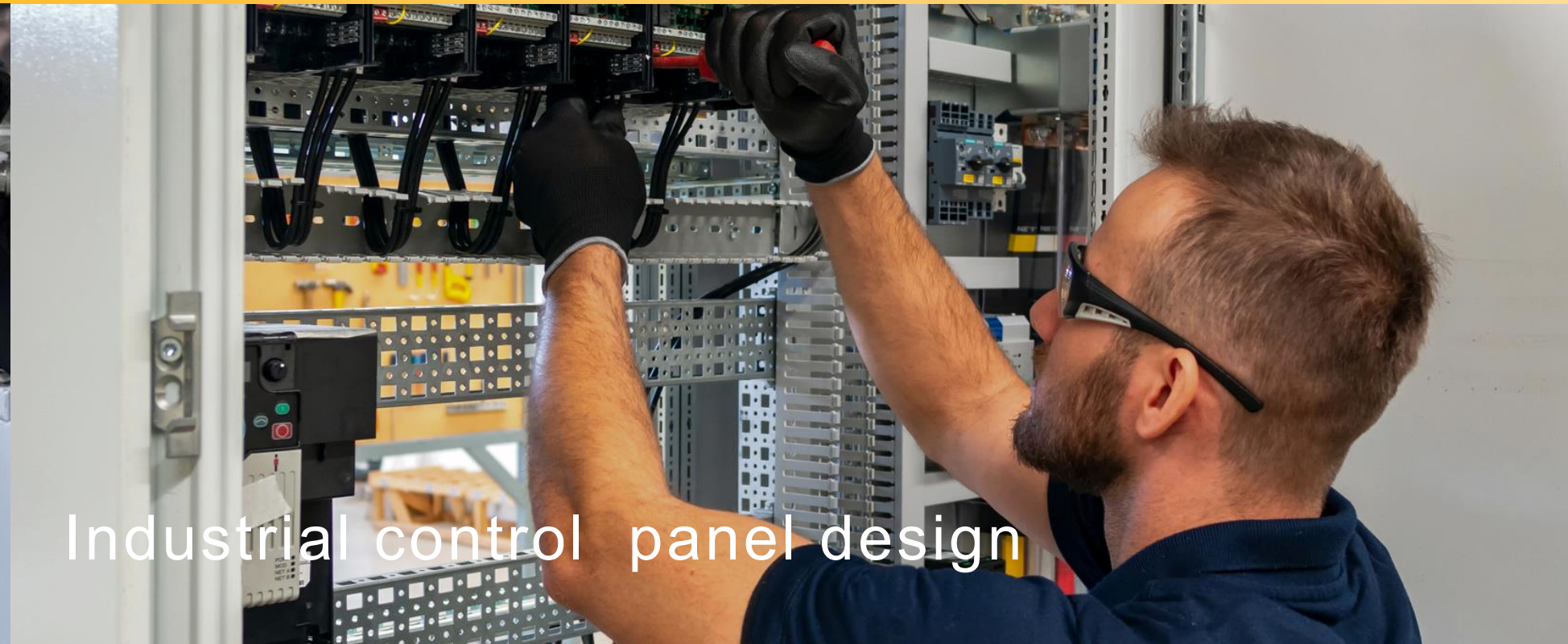
On-duty personnels

# Services

We only do what we are best at



High purity process piping system



Industrial control panel design



Sustainable plastics & metal fabrication



Fluid process instrument calibration

# Expansion Plan – Y2025 onward

We're excited to announce the acquisition of a 2-acre plot at Penang Science Park North, marking a new chapter in our expansion journey.

This development will pave the way for a state-of-the-art factory, enhancing our production capabilities.

Phase 1 totaling 30,000 sqft.

Production : 13,000 sqft

Warehouse : 5000 sqft

Clean Room : 2000 sqft

Office Area : 10,000 sqft





# Questions?

Feel free to reach out to us



# Thank You!

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