

“We Automate Your Production”



PROGRAMMING



PROJECTING



ENGINEERING SOLUTIONS



ROBOTIC APPLICATIONS



CONVEYOR SYSTEMS



SIMULATION



“We Automate Your Production”

ROBOTIC INDUSTRIAL SOLUTIONS

For more information
Visit Our Website!





OUR PRODUCTS AND SERVICES



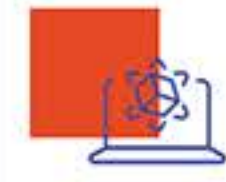
Engineering Solutions



Robotic Applications



Programming



Simulation



Project planning



Conveyor Systems



Machinery and Fixture Manufacturing



Automated Guided Vehicle (AGV)



Automated Storage and Retrieval (ASRS) Systems

About Us

- With 10 years of industry experience, we have been working in the field of robotic automation since 2013.
- We carry out activities in the automotive, automotive sub-industry, defense industry and white goods sectors.
- We actively provide services in all production workshops of the sectors such as manufacturing, pressing, painting and assembly.
- We provide services end-to-end turnkey line installation solutions with our design, simulation, project planning, electrical & mechanical manufacturing, assembly, robot & PLC programming and commissioning.

OUR STRATEGY



Doing your needs analysis...



Examining your industry...



Projecting your work...



Delivering your project...

OUR ROBOTIC APPLICATIONS

Welding Applications



Packaging & Palletizing



Sealing Applications



Loading and unloading



Part Handling & Assembly



Laser Welding, Cutting, Marking



Rivet Applications



Camera Apps



- ❑ Creating the process flow
Production capacity study
- ❑ Robot selection
- ❑ One or more axes in the system
(positioner, rotary table, slide, etc.)
designing products
- ❑ Selecting standard equipment for the
application
- ❑ Determining the layout plan

Project planning

We provide support in creating the most suitable Robotic production line according to the product and production quantity determined by the customer.



- ❑ Maximum care should be taken to ensure that the program/hardware building blocks used are common and standard.
- ❑ Regardless of the hardware you prefer, you should always rely on standard engineering solutions that can work with other hardware.
- ❑ Our main duty is to provide complete and trouble-free service to our customers with our trained and competent workforce for the preparation, maintenance and system design of Robot and Automation programs.

Software

The features of the programs used in Robot and Automation systems are convenient for people who use them frequently. Solutions that are non-standard or will not work on products other than the hardware used; There will be possible causes of problems, if not now, then in the future.



Simulation

By showing how the designed systems will actually work, the simulation conveys the necessary information and allows the necessary arrangements to be made before establishing the physical system.

- ❑ Robot Selection and Access
Adequacy study
- ❑ Robot payload analysis
- ❑ Simulation of main manufacturing
equipment
- ❑ Optimization the simulation process
- ❑ Trajectory optimization to
reduce cycle time
- ❑ Offline programming



Production

With the preparation of the production project, project management units transfer the activities to the production units. All productions are supplied to international standards and from reliable domestic and foreign suppliers. Special productions such as fixtures and apparatus are manufactured and assembled in the NOVI production area meticulously and with an understanding of quality control.

- ❑ Laser/Plasma cutting,
- ❑ Cutting and painting of profile and pipe
groups
- ❑ grading operations
- ❑ Welded manufacturing processes with robots
- ❑ CNC vertical machining and turning
operations
- ❑ Sandblasting and painting processes





2021
2022

Ford Otosan Yeniköy V710 DCV Prototype Vehicle Production Line Project

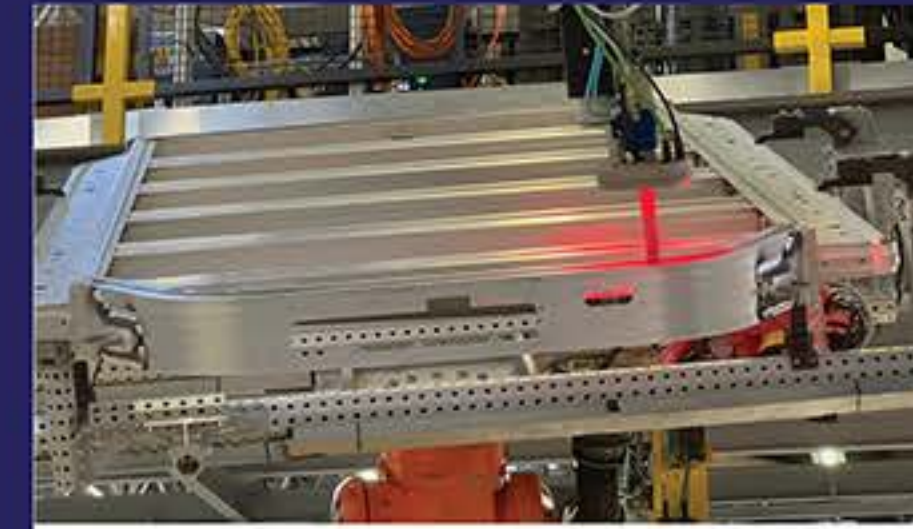
- 85 prototype fixture designs, manufacturing, measurement, commissioning
- Manual welding gun designs and installations
- Manual production line superstructure and gun line installations
- Hemming station with 2 robots robots and automation programming, commissioning receiving
- 11 hemming dies designs, manufacture, clinch fixture manufacturing and commissioning
- Metal finish and CMM measurement station design, manufacturing, installation, commissioning



2021

BSH Çerkezköy Collaborative Robot Gas Leak Control Cells

- Gas leak detection with collaborative robot test app
- Robotic cell design, simulation, manufacturing and commissioning



2021

Ford Otosan Gölcük V363 Battery Line Capacity increase Project

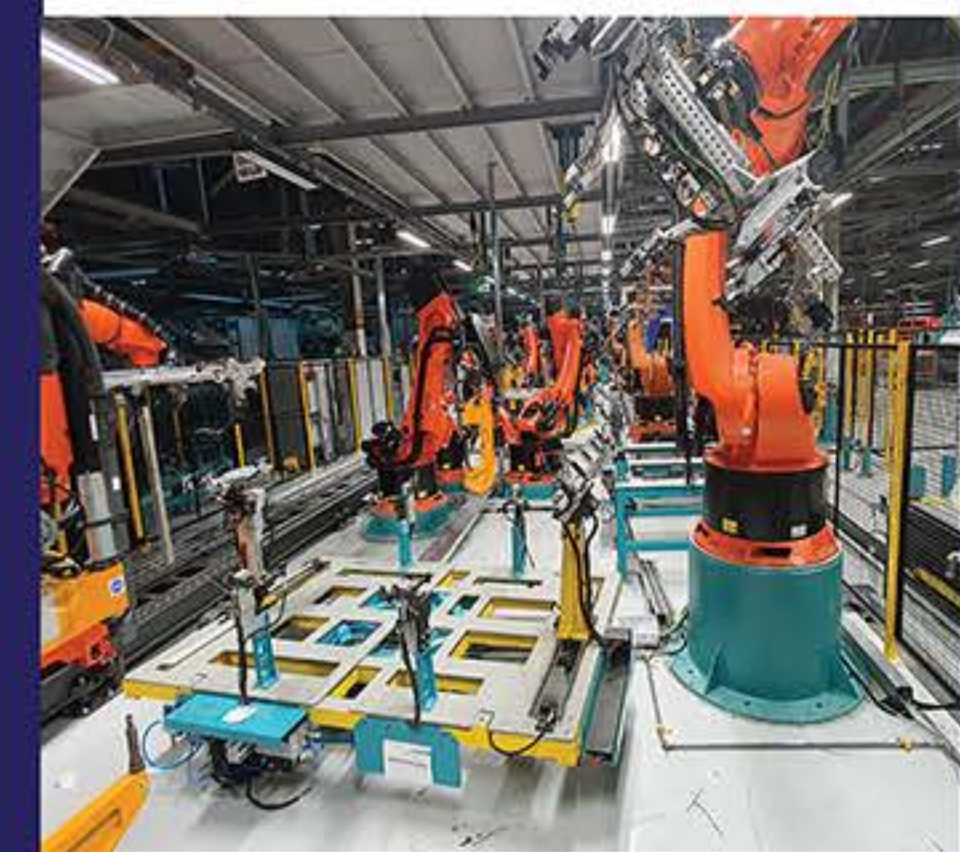
- Current battery case manufacturing with the addition of 2 robots of the line mechanical, electrical, robotic and revising as automation
- Milling, laser camera measurement and handling robot making programming
- Production with 7 robots in total robot and automation of the line programming, commissioning



2022

Ford Otosan Gölcük V363 28K Battery Tray Manufacturing Line Installation Project

- Automatic production line project with 21 robots, 2 CMT welding cabins, automatic magazine and maintenance platform, leaktest stations
- Installation of the robotic manufacturing line from scratch; Design, simulation, cycle time studies, PLC and robot offline programming, mechanical and electrical manufacturing, field installation, robot and automation commissioning, line delivery including CE certification.
- Applied processes; rivet, milling, arc welding, sealing, 3D quality control measurement, handling, camera measurement, flushness measurement, laser camera measurement, toolchange, QR code printing and scanning, leaktest, buffer transfer system





Ford Otosan Gölcük V710 - V363 Transit Battery Station Leak Test Cell Project

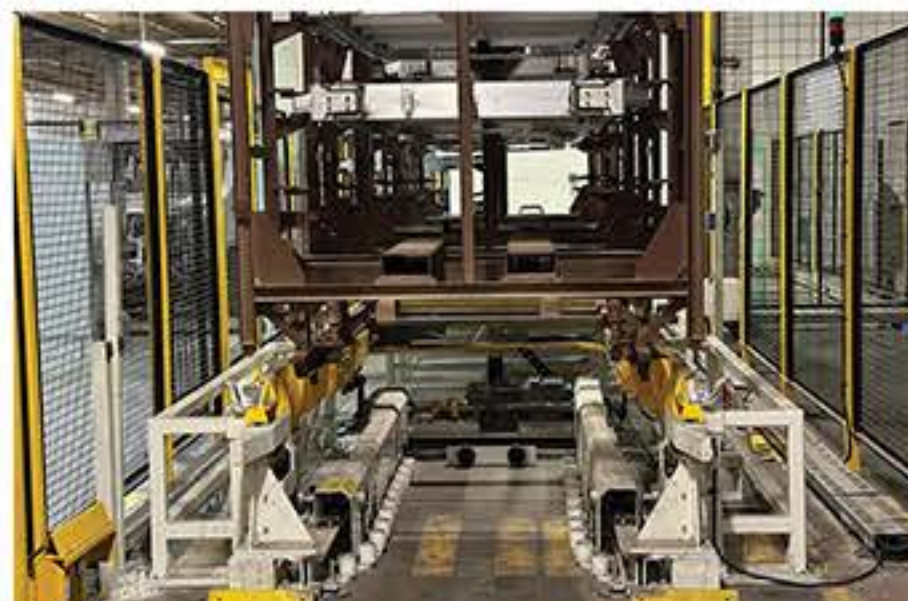
- Single robot line installation including leakage test line and stock conveyor system
- Dismantling of the existing line, new line design, simulation, stock conveyor system design, manufacturing, assembly and field commissioning works
- Leak test process robot programming and commissioning studies with 3D camera
- PLC programming and commissioning works of the battery case stands stock pickup and drop process conveyor system



2022

Ford Otosan Gölcük CCAB Automatic Battery Tray Stand Transfer Line

- Design, simulation, manufacturing, assembly and commissioning of stocked conveyor lines suitable for 3B and 4B battery stand types
- Integrating the option of loading with AGV and forklift into the stock conveyor system
- PLC programming and commissioning works for the process of taking the stands with a fork lift over the conveyor system and loading them into the CCAB vehicle chassis.



Ford Otosan Yeniköy V769 DCV Prototype Production Line Superstructure Project

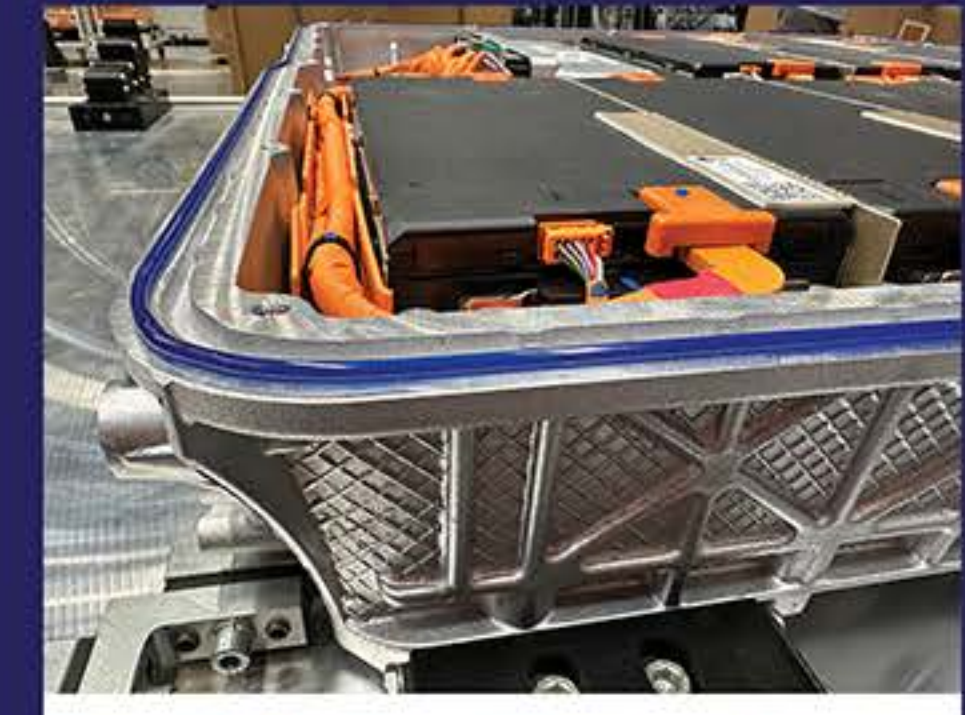
- Prototype production line superstructure design, manufacturing and assembly
- Manual welding gun designs, layout plans and connections



2022

Ford Otosan Gölcük Battery Assembly Line Hylomar Application Process Project

- Process planning, station design, simulation, manufacturing, assembly, commissioning studies with 2 robots
- Applied processes; robotic surface cleaning application with plasma, hylomar sealing process and quality control with 2D surface measurement with laser profile sensor, manual surface analysis measurement process, skid transportation on the conveyor, automatic lifting and locking system
- Analysis of the battery type to be applied with skid tags and process start automation system





2022
2023

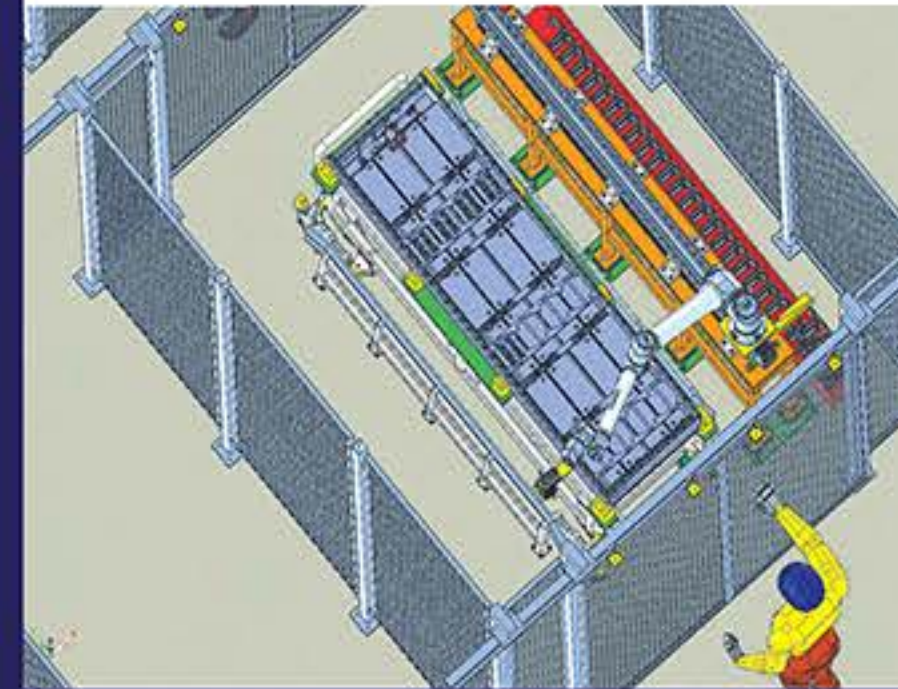
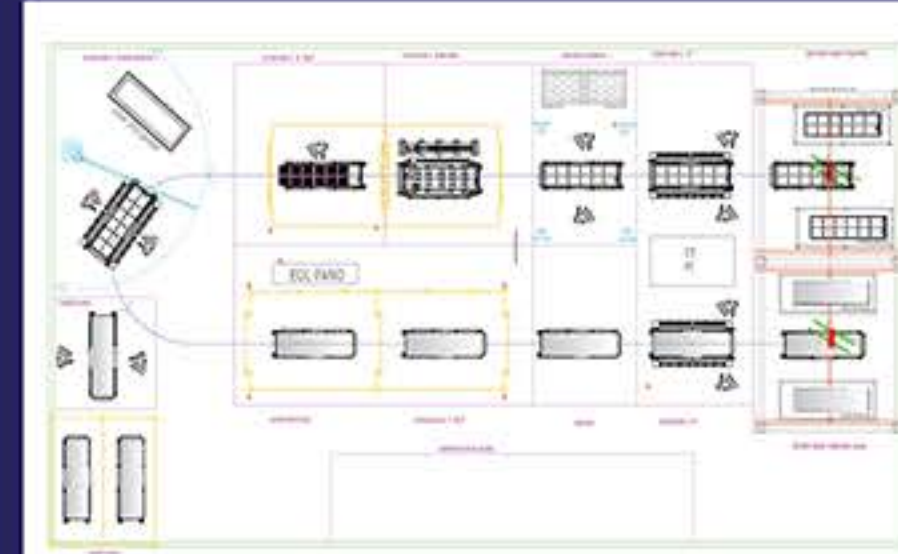
Ford Otosan Yeniköy Front End Production Line Robot Programming Project

- Carrying out and commissioning all robot programming studies, including offline programming and simulations of the front end production line with 53 robots.
- Applied processes; spot welding, handling, sealing, boring, camera sealer quality control measurement, camera quality control and measurement

2023

Ford Otosan Gölcük CAB – VBK PHASE- 3 Line Renewal Project

- 29 robot station renovation and transformation project
- Complete manufacturing, measurement, assembly, electrical revision and manufacturing, PLC and robot programming, commissioning operations of 7MRH and 7MLH stations
- Replacement of all profibus-based equipment in stations connected to 8 PLCs with profinet-supported equipment
- 8 PLC standard conversions
- Electrical revisions of 8 stations and updating of e-plans
- Carrying out offline programming and cycle time improvement studies at 8 stations with 29 robots.



2023

Otokar Sakarya Battery Assembly Production Line Project

- Design, simulation, equipment designs, manufacturing, assembly and field commissioning of the battery assembly line
- End of line electrical tests, finished product leak test, design of cooling channels leak test stations, production and supply of test equipment in accordance with the need.
- Commissioning of the assembled battery quality control process with 3D camera and collaborative robot

2023

Ford Otosan Gölcük 28K Battery Repair Cabinet Project

- Enclosing the existing repair station in a cabinet and controlling it with a separate PLC and HMI panel
- Programming the robot to integrate the pick-up and drop-off parts into the cabin with the automatic door.
- Positioner fixture design, manufacturing and commissioning that allows bi-directional part processing
- Cabin design, manufacturing and installation, installation of the interior ventilation system, installation of the interior fire alarm system and communication with the fire department.





2023

Ford Otosan Gölcük G.O.P. Station Transportation, Revision, Commissioning Project

- Current G.O.P. Electrical, mechanical and superstructure dismantling of the station and delivery to the new area
- New G.O.P. design of the station, equipment revisions, installation and commissioning in the field
- Performing station electrical, e-plan revisions and PLC programming studies



2023

Ford Otosan Yeniköy J74 Glazing Robots Robotic Automation Project

- Installation of 4 stations from scratch, including windshield, right-left side windows and panoramic roof glass.
- Station 2D and 3D layout designs, simulation and cycle time studies
- Design, manufacturing, field installation and commissioning of all equipment at the stations
- Programming of 4 stations with 4 separate PLCs, panel manufacturing and e-plan studies
- Commissioning of the sealer quality control process with camera
- Programming of transportation and assembly processes with 4 handling robots



2023

Ford Otosan Yeniköy B460 Spare Parts Line Design and Installation Project

- Designing a new layout and process for the existing production line as a spare parts production line.
- Cycle time target, layout designed in accordance with the process and simulation studies of the spare parts line with new equipment
- Mechanical, electrical, robotic and automation complete line installation and commissioning works
- Applied processes; hemming, handling, toolchange, spot welding, countersink hole, sealing
- Geometry spot quality simulations, mechanical and design geometry settings, manufacturing equipment design



2023

Yıldız Kalıp Hadımköy TOGG Crossbeam Part Supply Sub-Industry Mass Production Project

- Robotic and automation commissioning of 2 welding stations with 3 robots
- Welding parameter settings, cycle and station process automation studies





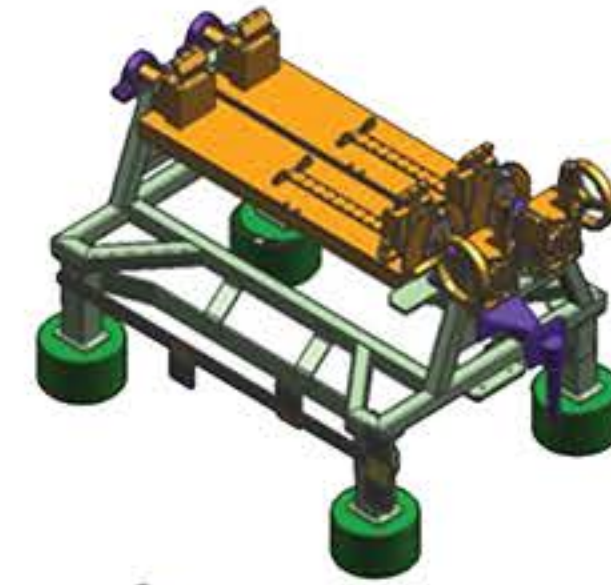
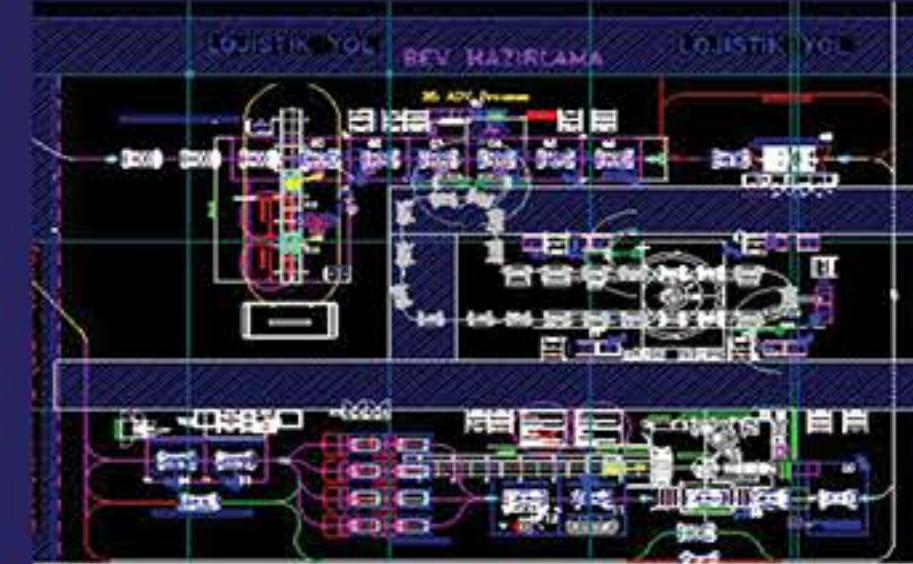
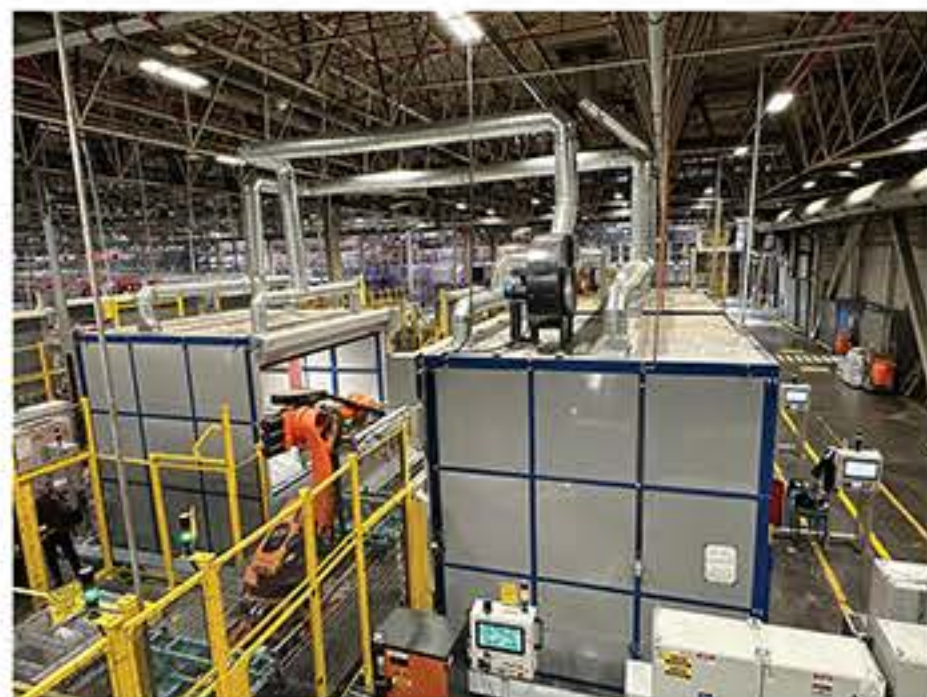
Ford Otosan Gölcük Mezzanine Profibus Profinet Conversion Project

- Electrical and automation renewal of the transfer area connecting the welding and painting workshops
- Revision, e-plan update, standard conversion of all panels connected to a total of 7 PLCs
- Replacement and recommissioning of critical equipment such as Motor, Driver, ET module, Safety relay



Ford Otosan Gölcük 120K Battery Line Inline & Manual Welding Repair Cabines Project

- Design, manufacturing and field commissioning of 4 manual and 3 robotic welding cabins
- Robot & automation integration into existing 120k battery line
- Positioner fixture & gripper designs, manufacturing, field installation & commissioning suitable for 2 types of battery tray
- ATEX process zone creation, design & manufacturing & installation



TOFAŞ Bursa Battery Assembly Line Project

- Semi-automatic battery assembly line with 2 robots and 14 stations
- Design, manufacturing, robot & automation programming and commissioning of the entire production line
- Installation and system integration of various test stations such as AGV, Leaktest, End of Line tests
- Camera sealer quality control, profile sensor part position control applications
- Cartesian manipulator designs, manipulator gripper designs and manufacturing
- Design and manufacturing of 2 types of divisible trolleys that can operate in 2 different models.
- All system automation, robot programming, electrical design and manufacturing
- Development of production tracking software and main system communication



Ford Otosan Gölcük 4P Paintshop Tray Production Line Robot & Positioner Project

- Robotic tray testing system design, manufacturing, installation and commissioning
- Positioner fixture and gripper design, manufacturing, commissioning
- Part referencing control with camera for tray pick-up operations
- Whole system automation, turnkey new cell integration

