

Company & Products



İleri Teknoloji Sistemleri Ltd. Şti.

Murat Merdin,
MBA 2022



We prepare factories
to the **future** with
Robotics, **AI** and
Automation.



About MET



TÜBİTAK



İleri Teknoloji Sistemleri Ltd. Şti.



İleri Teknoloji Sistemleri Ltd. Şti.



İleri Teknoloji Sistemleri Ltd. Şti.

2013

TÜBİTAK BİGG

Founded in
Technopark İzmir
with the support of
TÜBİTAK BİGG
program.

2016

CERNTender

In 2016, MET has
been accepted to
the CERN tender
to provide
engineering
solutions.

2016

METFABRİKA

600 m2 Factory
was opened in
Technopark
İzmir.

2016

METWAVE

METFİKS

CERBERUS

3 new patented
products.



2019

METCELL

METSORT

METSENSE

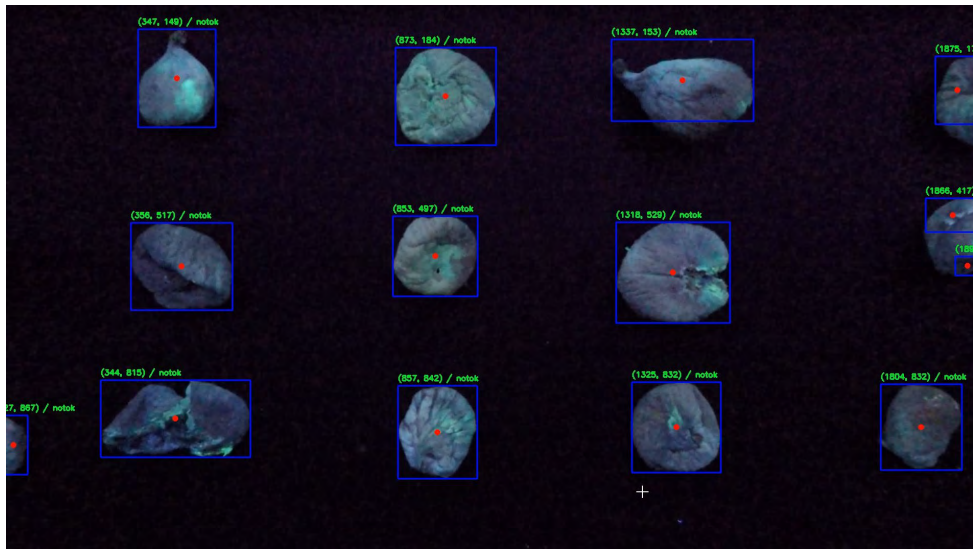
3 new patented
products.



METSORT



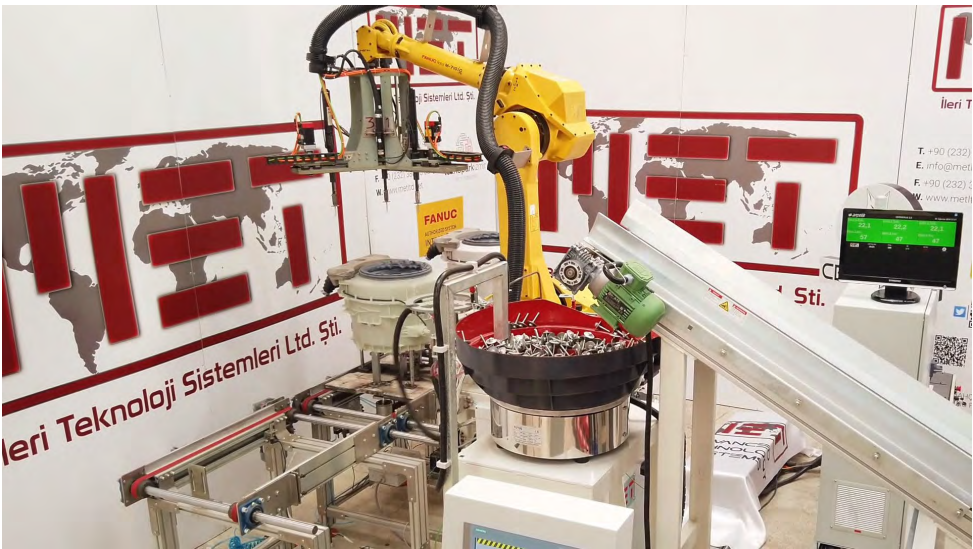
AI Supported Sorting Machine



CERBERUS



Autonomous Assembly Robot



METCELL



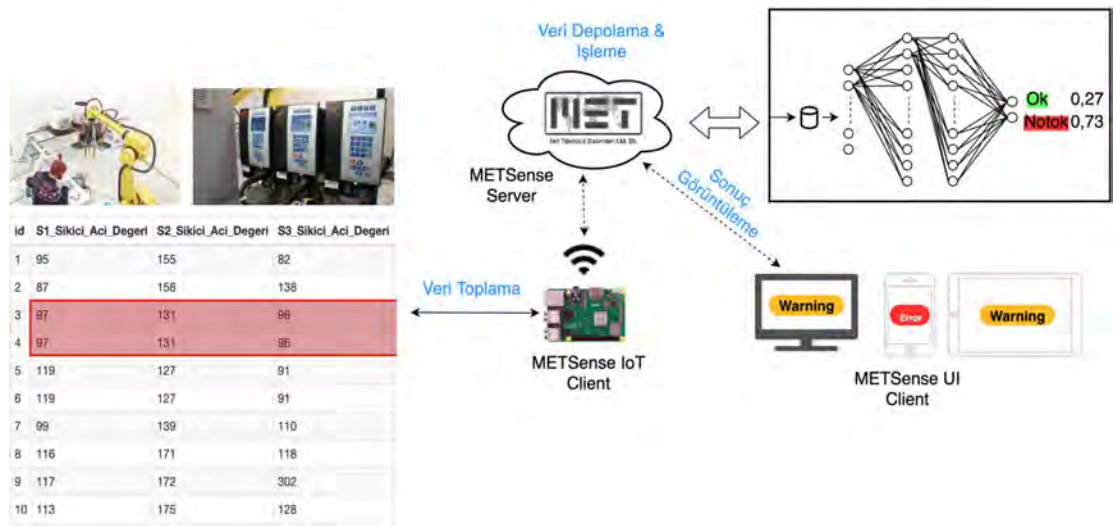
Smart TV Assembly Cell



METSENSE



Predictive Maintenance With DL



METWAVE



Industrial Microwave Oven

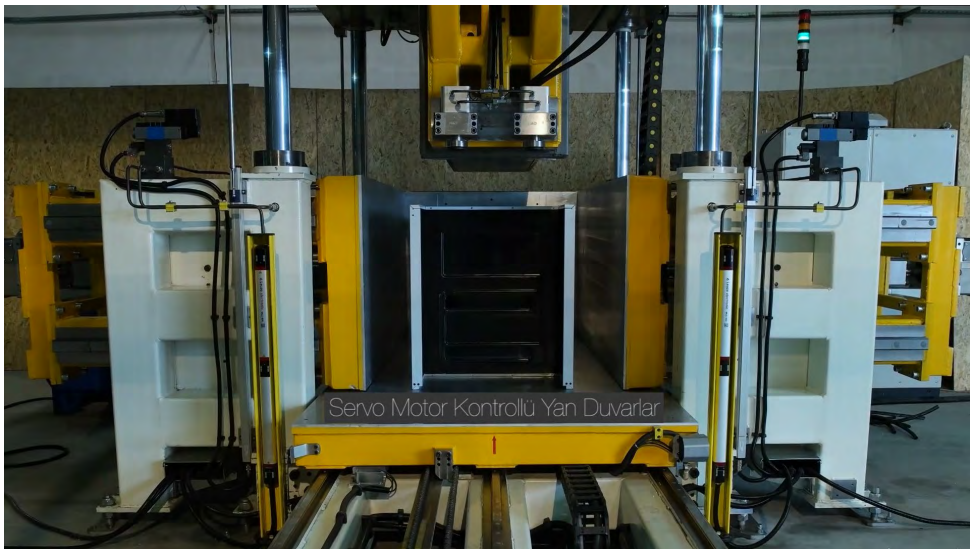


METWAVE 6 Hybrid
Industrial Microwave Owen

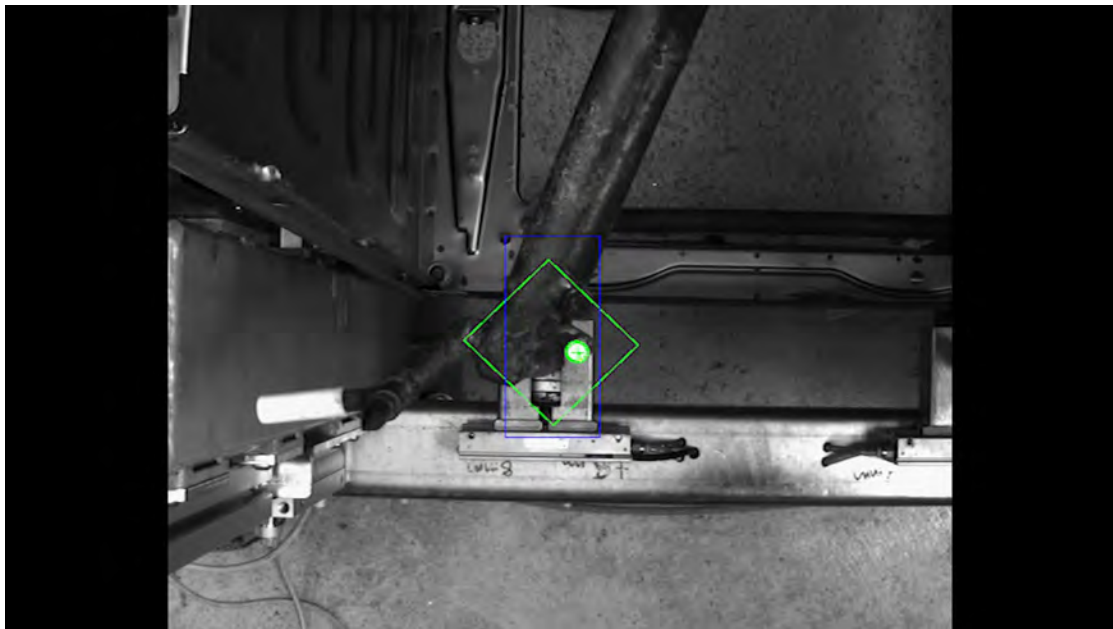
METFIKS



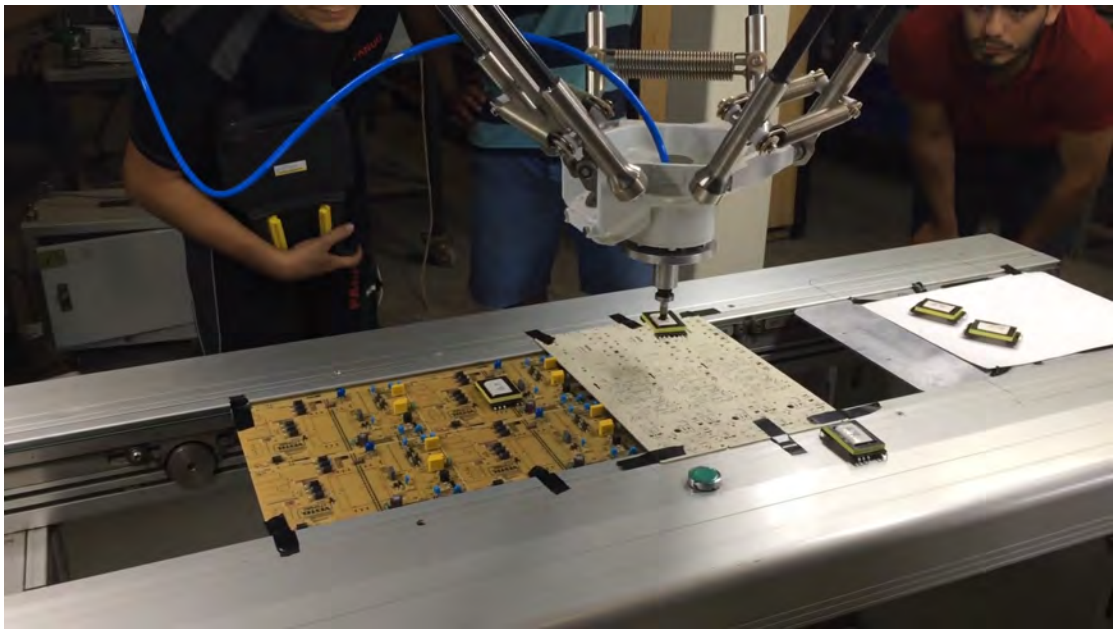
Resizable Polyurethane Fixture



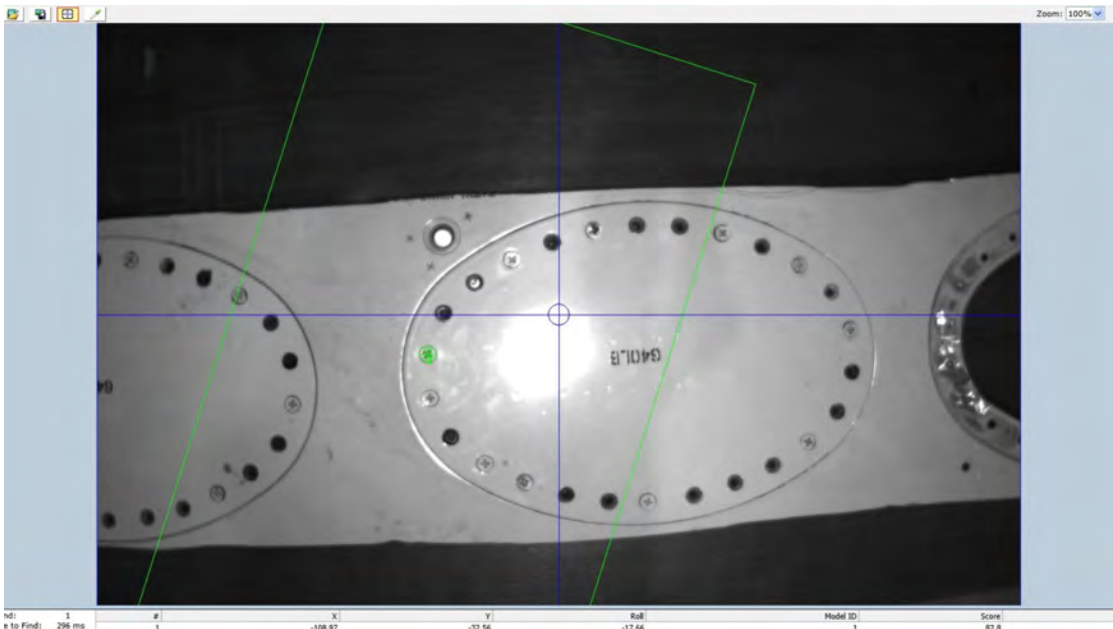
PART HANGING WITH
IMAGE PROCESSING



ELECTRONIC COMPONENT
ASSEMBLY WITH IMAGE
PROCESSING



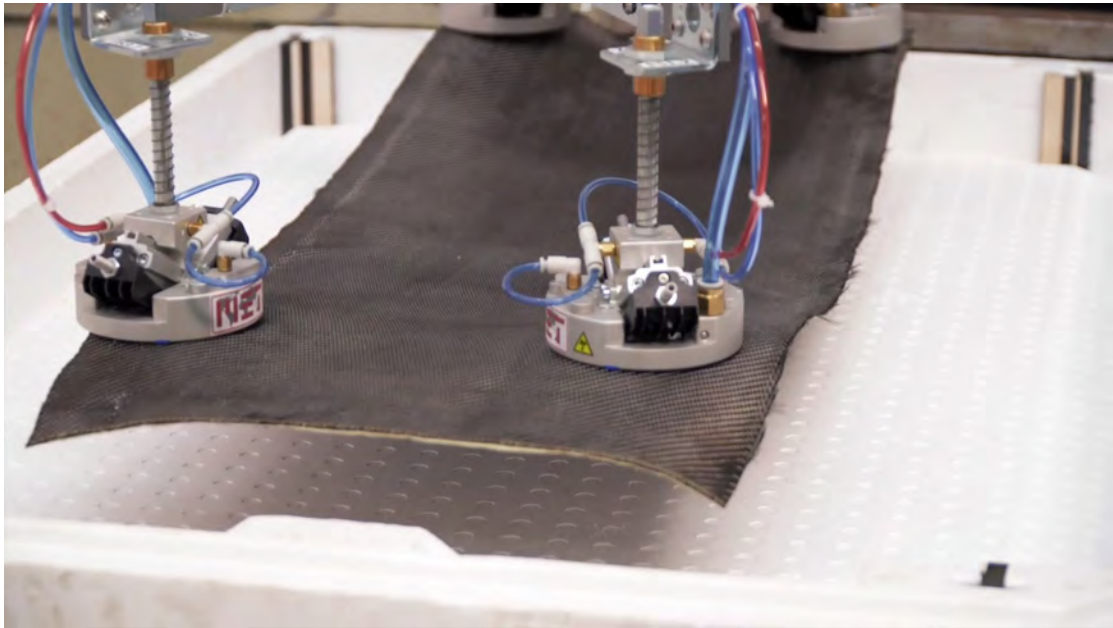
CERBERUS 2.0



GLASS HANDLING ROBOTS

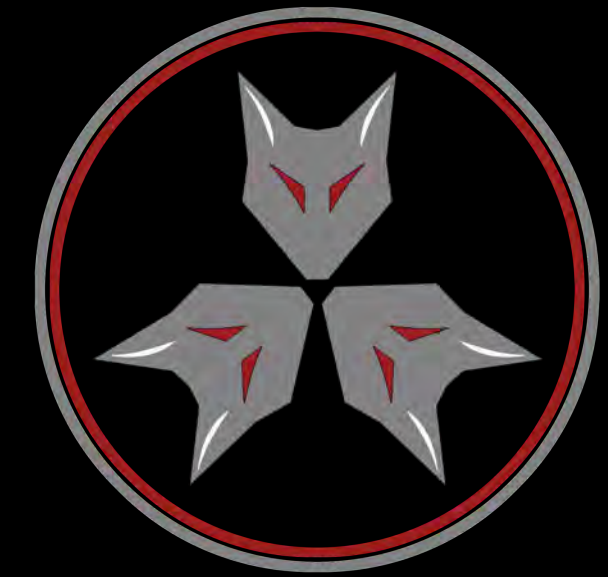
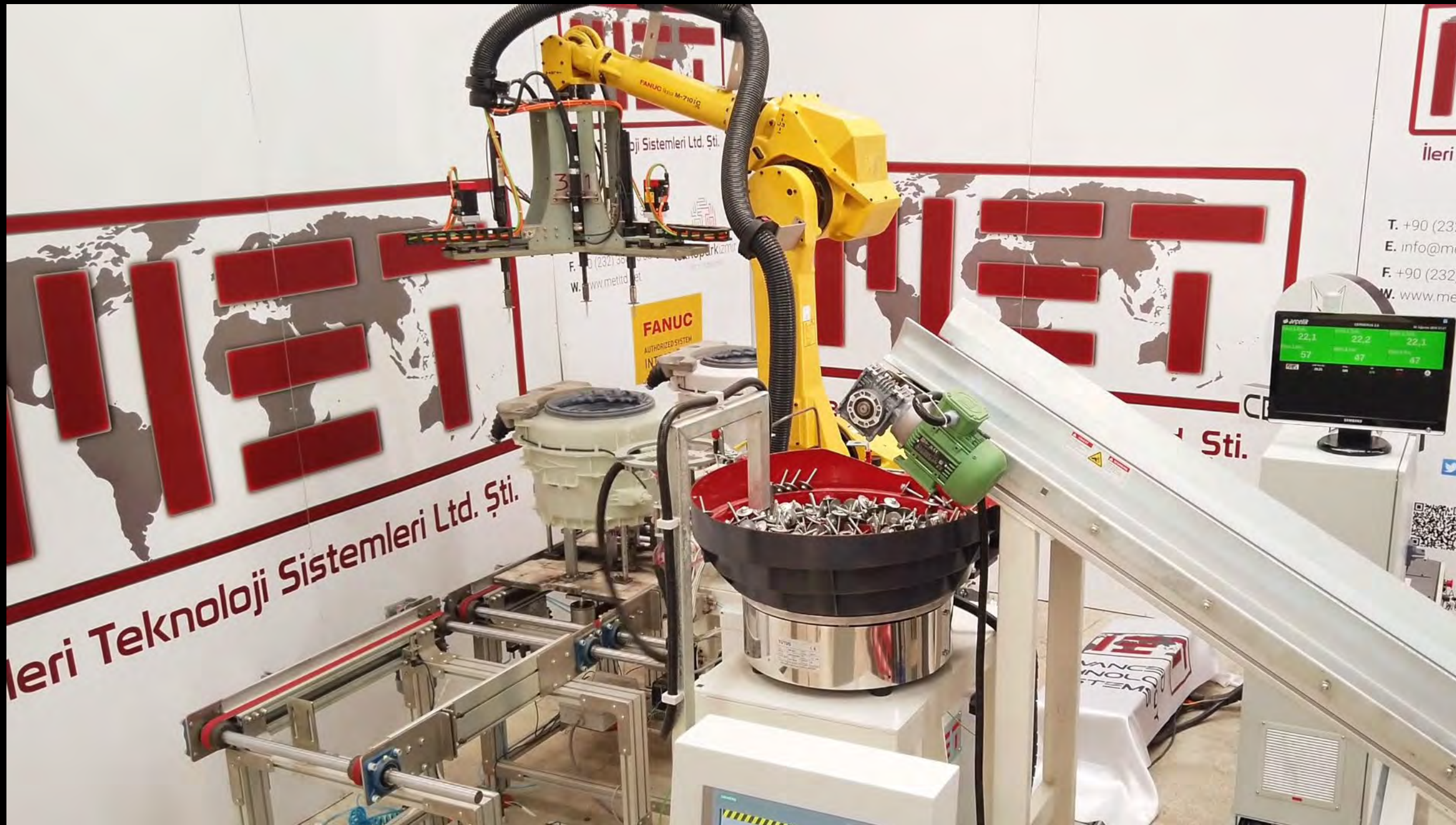


PERMEABLE MATERIAL
HANDLING ROBOTS



COLLABORATIVE ROBOTS





CERBERUS

Autonomous
Assembly Robot

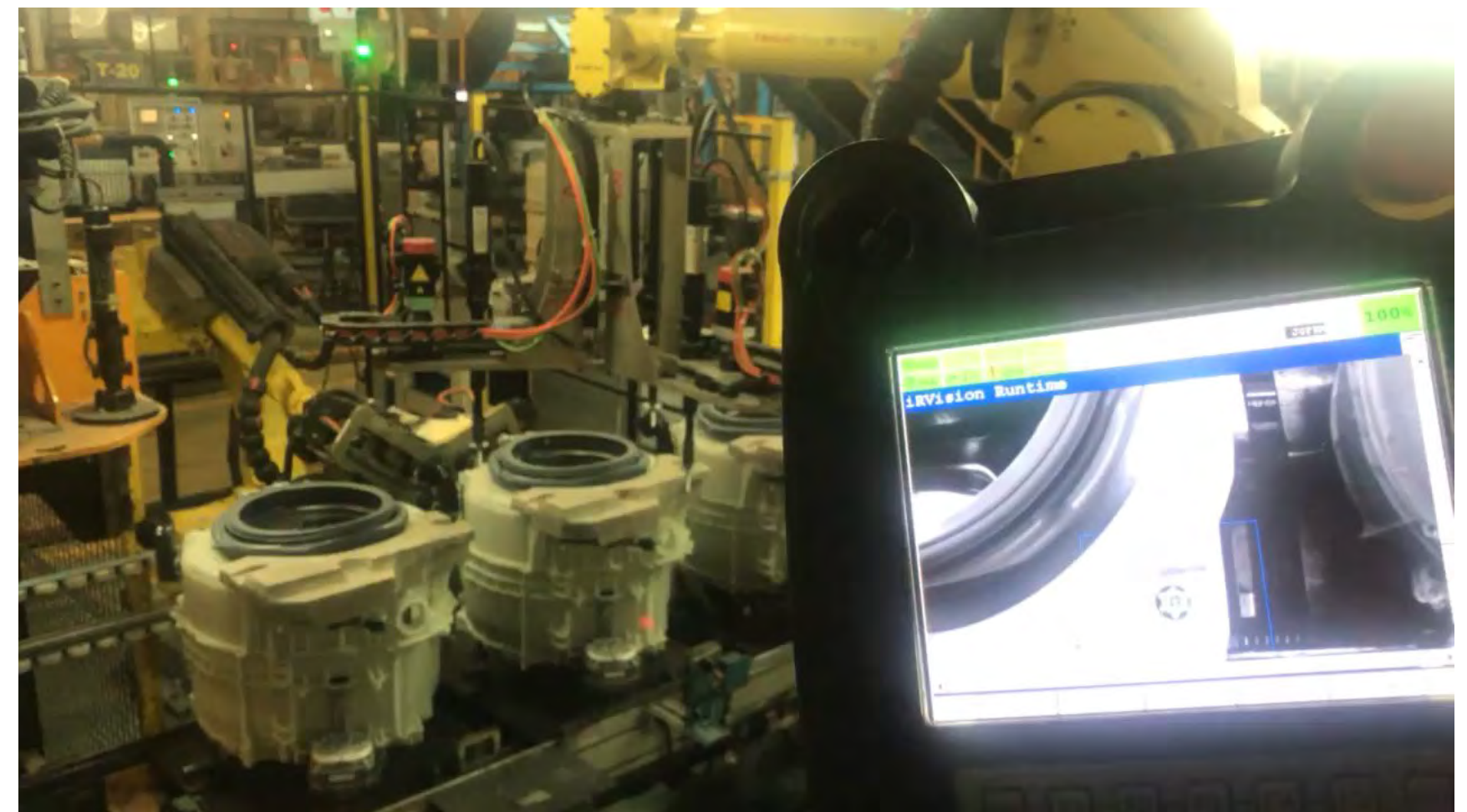
How They Do It

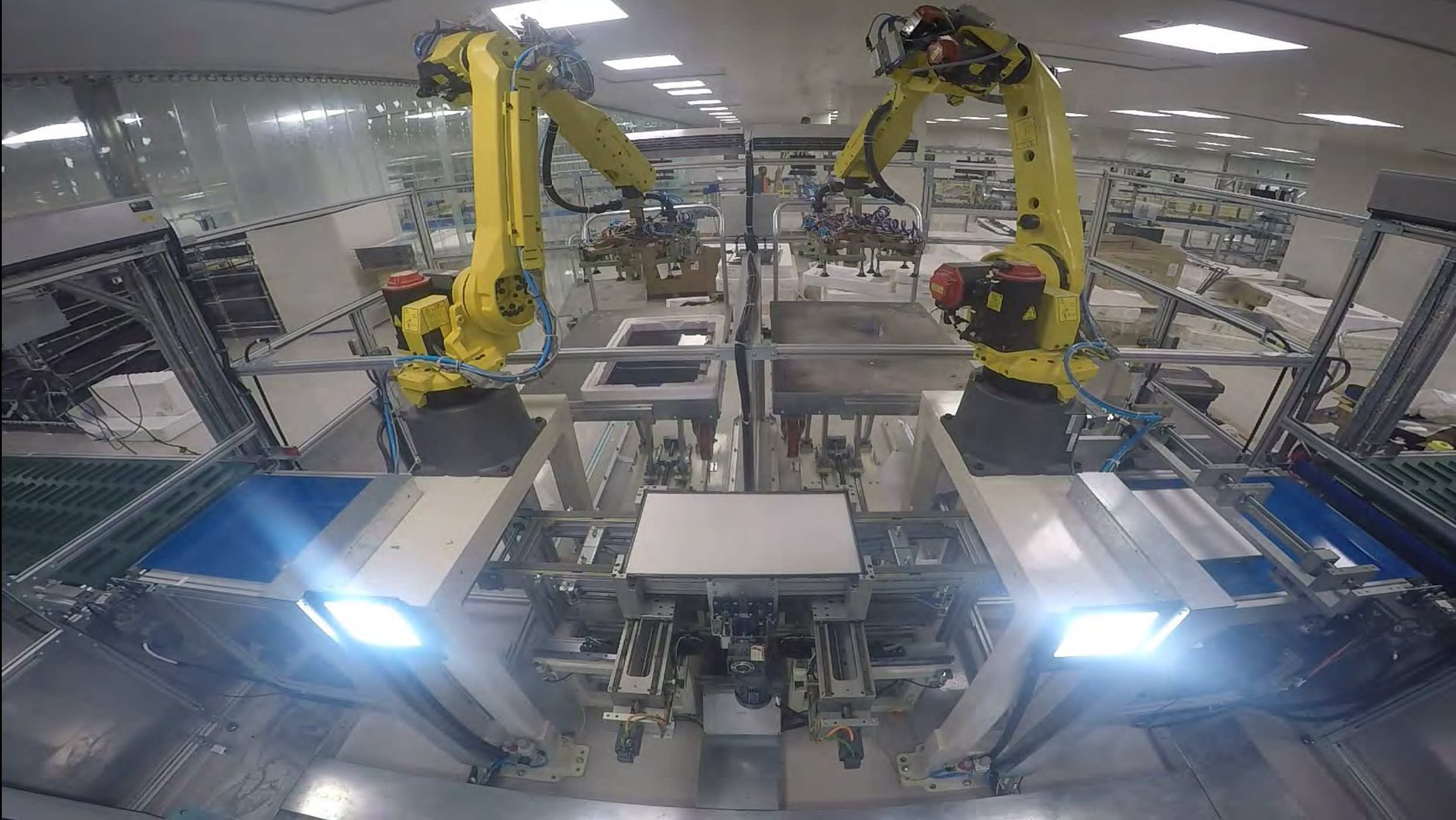
- FIXED
- NEEDS SETUP
- NOT TRACEABLE



How MET Do It

- FLEXIBLE
- NO SETUP
- TRACEABLE





İleri Teknoloji Sistemleri Ltd. Şti.

METCELL
Smart TV Assembly
Cell



How They Do It

- MANUAL OPERATION
- NEEDS SETUP
- NOT TRACEABLE



How **MET** Do It

- ROBOTIC
- HIGH CAPACITY & QUALITY
- TRACEABLE

Similar Projects



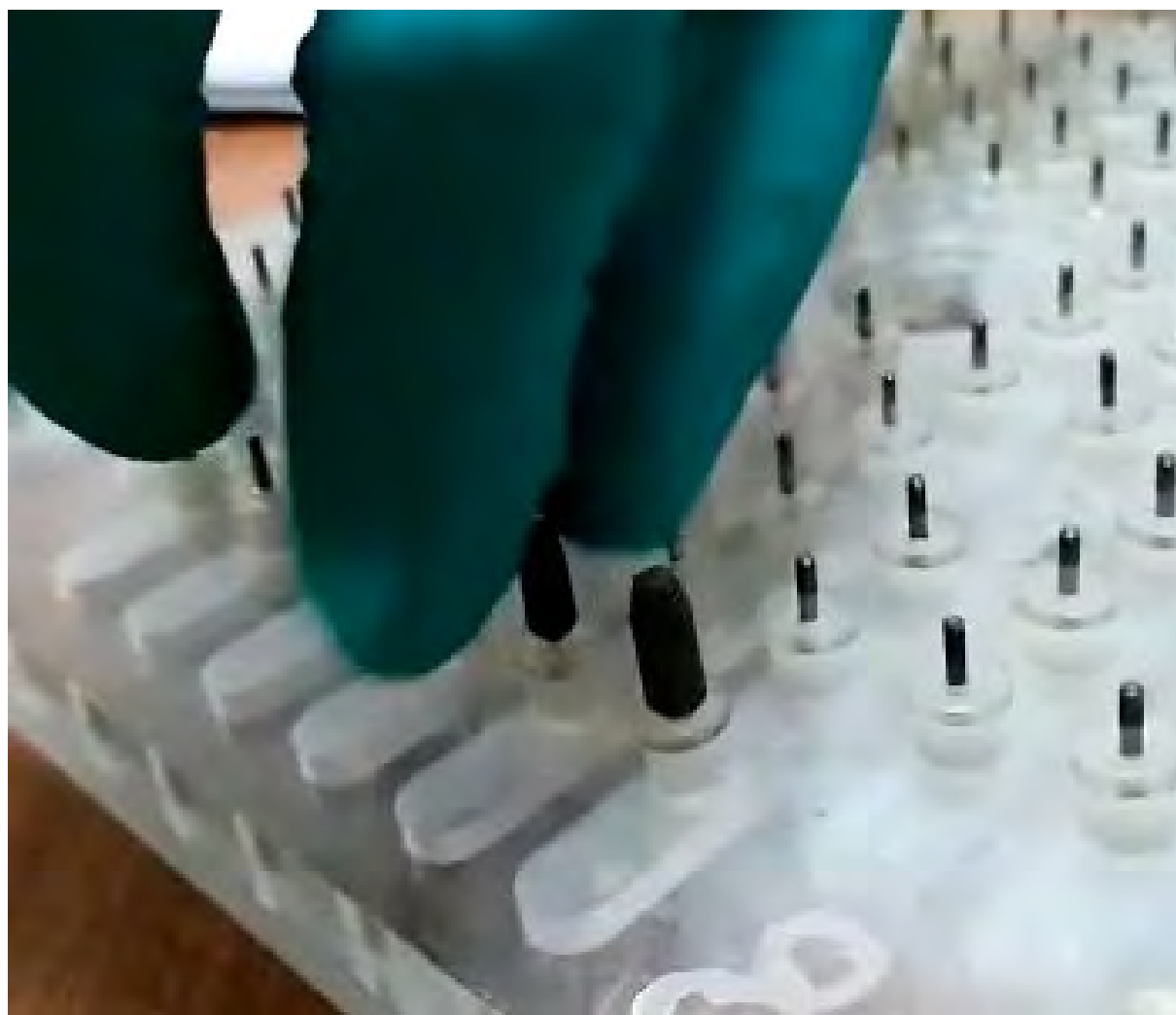
İleri Teknoloji Sistemleri Ltd. Şti.

METCELL
Smart TV Assembly
Cell



İleri Teknoloji Sistemleri Ltd. Şti.

Dental Implant
Assembly Cell



How They Do It

- MANUAL OPERATION
- NEEDS SETUP
- NOT TRACEABLE



How MET Do It

- ROBOTIC
- HIGH CAPACITY & QUALITY
- TORQUE TRACKING



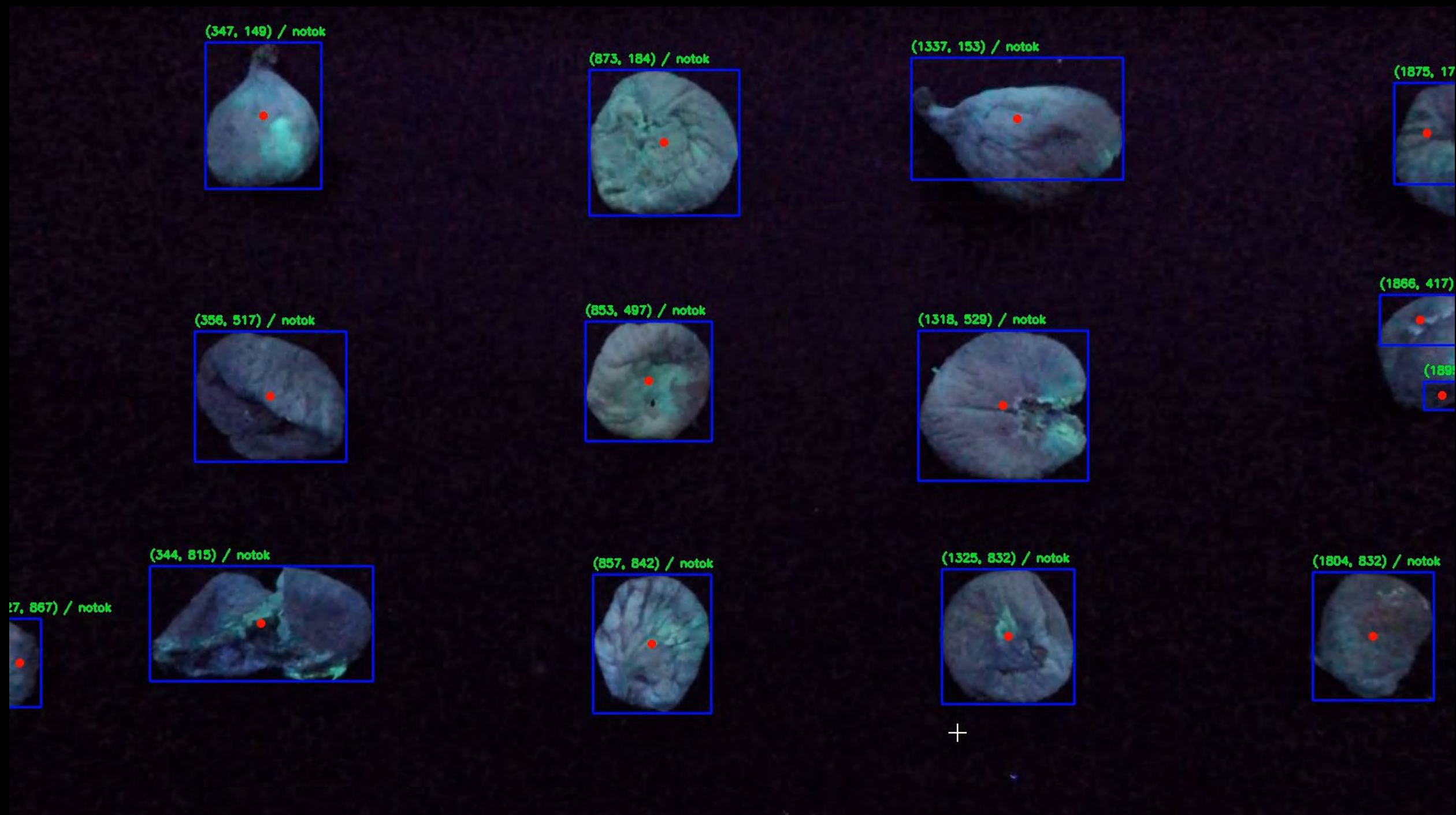
İleri Teknoloji Sistemleri Ltd. Şti.

Dental Implant
Assembly Cell



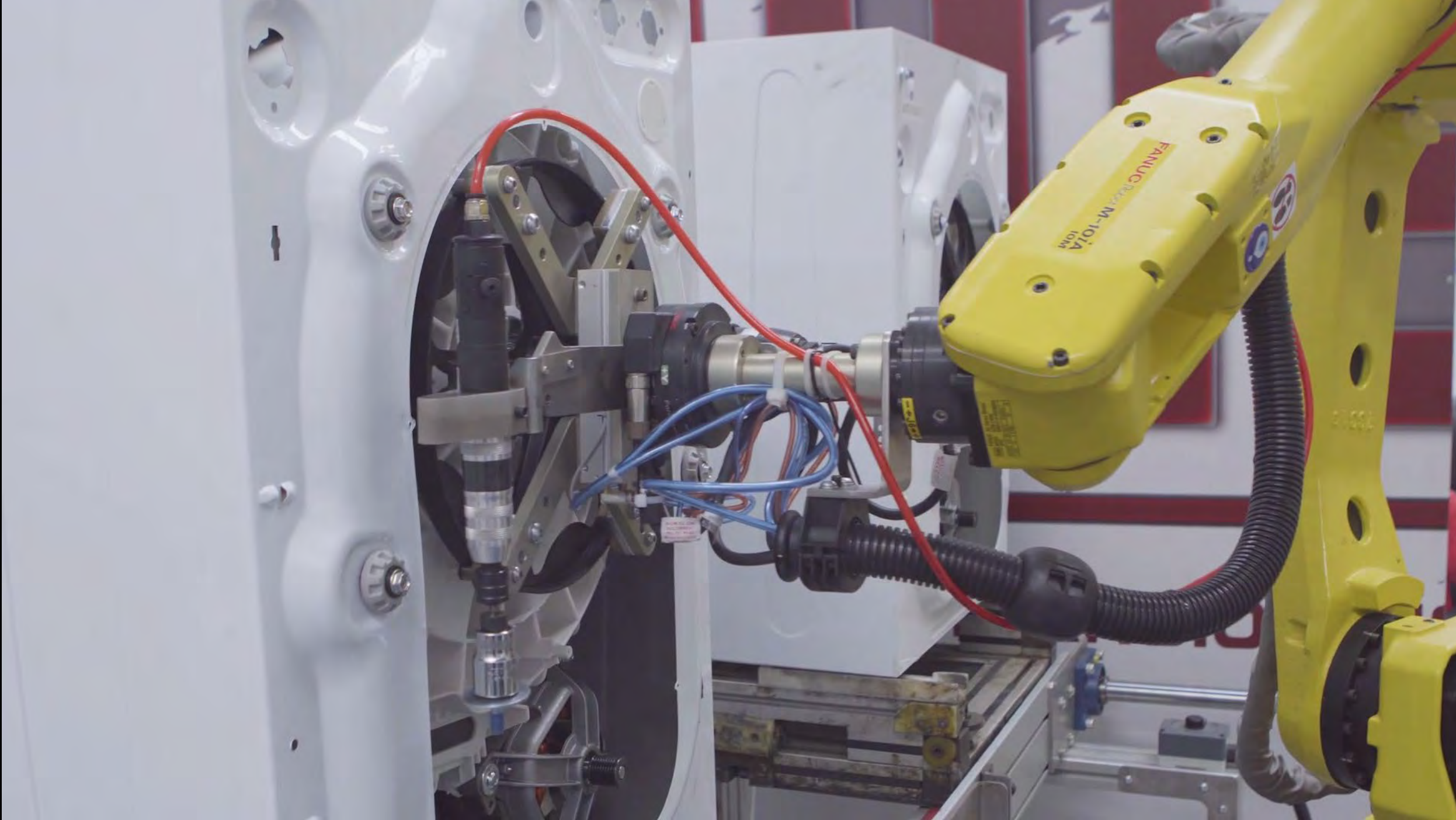
İleri Teknoloji Sistemleri Ltd. Şti.

Dental Implant
Assembly Cell



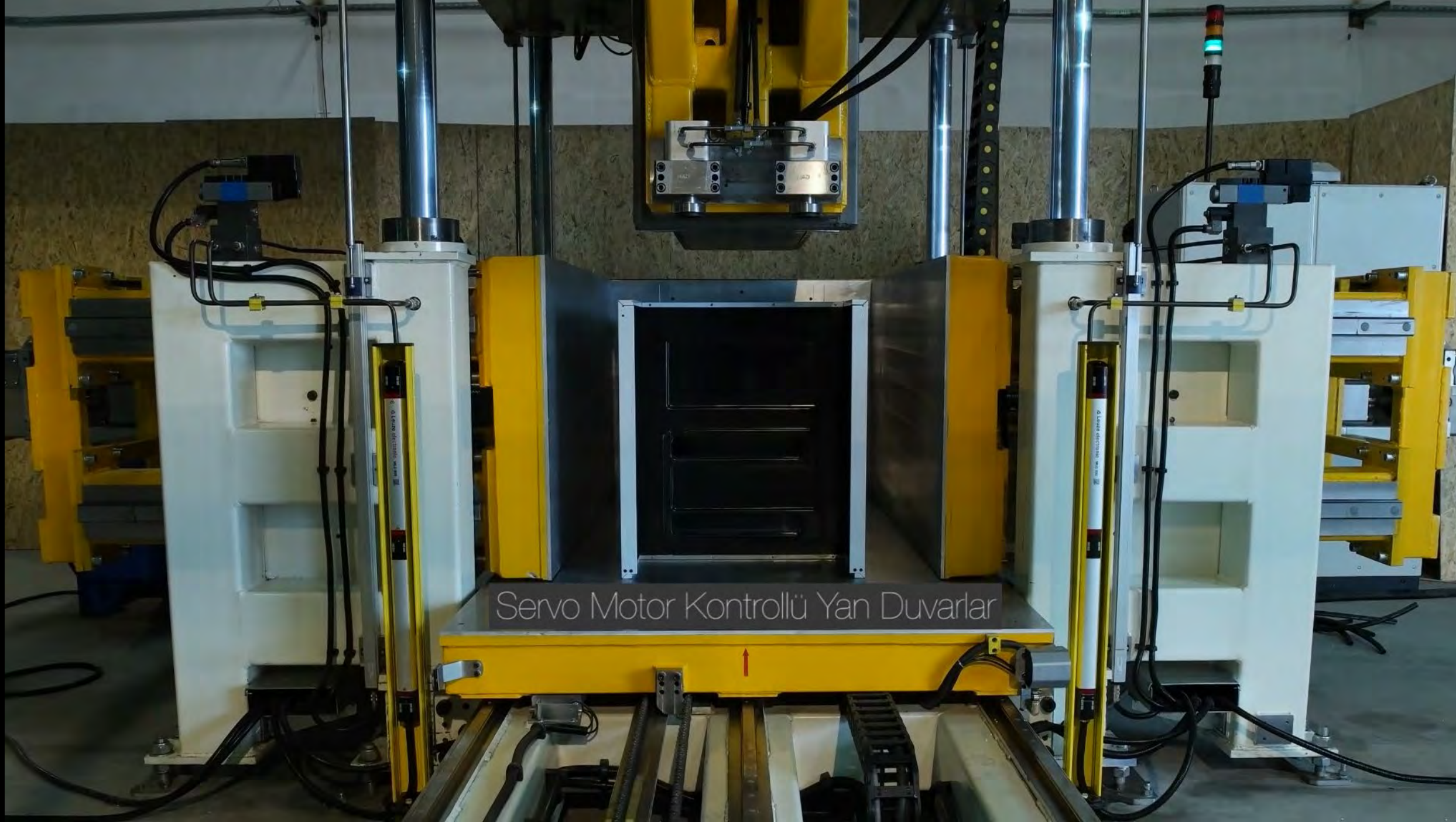
METSORT

AI Supported
Sorting
Machine



İleri Teknoloji Sistemleri Ltd. Şti.

Smart
Assembly With
Force Sensor



İleri Teknoloji Sistemleri Ltd. Şti.

METFİKS

Resizable
Polyurethane
Fixture

28

PATENT
APPLICATIONS

28 patent
applications,
10 registrations,
3 utility models,
3 brands
in 7 years

MET Patents



ARAŞTIRMA	Detay	Başvuru Numarası	Patent Tipi	Buluş Başlığı
Patent Araştırma	DetayQ	2015/02390	Patent	Kapalı hacimler arası ısı transferi için kullanılan ısı transfer plakalarda montaj yeniliği.
Dosya Takibi	DetayQ	2015/17579	Faydalı Model	Konveyör Tekerlek ile Ray Arası Temas Geometrisinde Yenilik
Detaylı Arama	DetayQ	2015/17719	Patent	HOMOJEN ENERJİ DAĞILIMINA SAHİP MİKRODALGA KURUTMA FIRINI
Gelişmiş Arama	DetayQ	2015/17734	Patent	BÜTÜNLEŞİK EKSTRÜZYON SİSTEMİNE SAHİP BİR TERMOFORM MAKİNESİ
YARDIM	DetayQ	2016/11761	Patent	Çamaşır Makinesi Denge Ağırlıklarını Kazan Gövdesine Sabitleyen Değişken Ölçülü Aparat
Kılavuz	DetayQ	2016/20427	Patent	MİKRODALGA TÜNELİNDE YÜKSEKLİK AYARLI KONVEYÖR TAŞIYICI CAM TABAN
Hata Bildir	DetayQ	2016/20430	Patent	ENDÜVİ PAKETİ İLE ROTOR MİLİ MONTAJ MEKANİZMASI
Görüş ve Öneri Bildir	DetayQ	2017/07591	Patent	TÜM KALIP BASKI DUVARLARI HAREKETLİ VE NUMERİK KONTROLLÜ POLİÜRETAN FİKTÜR MAKİNESİ
	DetayQ	2017/09288	Faydalı Model	EŞANJÖR BORUSU SÖKME OTOMASYON MEKANİZMASI
	DetayQ	2018/11555	Patent	Tüm Taşıyıcı Kolları Köşgenel Hareketli Robotik Tutucu
	DetayQ	2019/20763	Patent	ELEKTROMANYETİK EMİSYON AZALTICI SUSTURUCU YALITIM YÖNTEMİ VE BUNA UYGUN TÜNEL TİPİ ELEKTROMANYETİK KAYNAKLI FIRIN
	DetayQ	2019/20764	Patent	Hibrit enerji kaynaklı yüksek verimli fırın
	DetayQ	2019/20765	Patent	SIKMA DELME KILAVUZ ÇEKME GİBİ İŞLEMLERİ GERÇEKLEŞTİREN BİR PROSES ROBOTU
	DetayQ	2019/20770	Patent	ELEKTROMANYETİK DALGA İLE ÇALIŞAN TÜNEL TİPİ EKİPMANLAR İÇİN BİR SUSTURUCU
	DetayQ	2019/20780	Patent	YENİ NESİL ÇOK EKSENLİ MONTAJ APARATI
	DetayQ	2020/15305	Patent	Açı ve pozisyon kompanse edebilen mekanik bağlantı elemanı montaj aparatı

ARAŞTIRMA	Detay	Başvuru Numarası	Patent Tipi	Buluş Başlığı
Patent Araştırma	DetayQ	2015/02390	Patent	Kapalı hacimler arası ısı transferi için kullanılan ısı transfer plakalarda montaj yeniliği.
Dosya Takibi	DetayQ	2015/17579	Faydalı Model	Konveyör Tekerlek ile Ray Arası Temas Geometrisinde Yenilik
Detaylı Arama	DetayQ	2015/17719	Patent	HOMOJEN ENERJİ DAĞILIMINA SAHİP MİKRODALGA KURUTMA FIRINI
Gelişmiş Arama	DetayQ	2015/17734	Patent	BÜTÜNLEŞİK EKSTRÜZYON SİSTEMİNE SAHİP BİR TERMOFORM MAKİNESİ
YARDIM	DetayQ	2016/11761	Patent	Çamaşır Makinesi Denge Ağırlıklarını Kazan Gövdesine Sabitleyen Değişken Ölçülü Aparat
Kılavuz	DetayQ	2016/20427	Patent	MİKRODALGA TÜNELİNDE YÜKSEKLİK AYARLI KONVEYÖR TAŞIYICI CAM TABAN
Hata Bildir	DetayQ	2016/20430	Patent	ENDÜVİ PAKETİ İLE ROTOR MİLİ MONTAJ MEKANİZMASI
Görüş ve Öneri Bildir	DetayQ	2017/07591	Patent	TÜM KALIP BASKI DUVARLARI HAREKETLİ VE NUMERİK KONTROLLÜ POLİÜRETAN FİKTÜR MAKİNESİ
	DetayQ	2017/09288	Faydalı Model	EŞANJÖR BORUSU SÖKME OTOMASYON MEKANİZMASI
	DetayQ	2018/11555	Patent	Tüm Taşıyıcı Kolları Köşgenel Hareketli Robotik Tutucu
	DetayQ	2019/20763	Patent	ELEKTROMANYETİK EMİSYON AZALTICI SUSTURUCU YALITIM YÖNTEMİ VE BUNA UYGUN TÜNEL TİPİ ELEKTROMANYETİK KAYNAKLI FIRIN
	DetayQ	2019/20764	Patent	Hibrit enerji kaynaklı yüksek verimli fırın
	DetayQ	2019/20765	Patent	SIKMA DELME KILAVUZ ÇEKME GİBİ İŞLEMLERİ GERÇEKLEŞTİREN BİR PROSES ROBOTU
	DetayQ	2019/20770	Patent	ELEKTROMANYETİK DALGA İLE ÇALIŞAN TÜNEL TİPİ EKİPMANLAR İÇİN BİR SUSTURUCU
	DetayQ	2019/20780	Patent	YENİ NESİL ÇOK EKSENLİ MONTAJ APARATI
	DetayQ	2020/15305	Patent	Açı ve pozisyon kompanse edebilen mekanik bağlantı elemanı montaj aparatı

3 Chamber of Commerce Certificates

CERBERUS, METWAVE, METFİKS

3 Technological Product Experience Certificates

CERBERUS, METWAVE, METFİKS



**T.C. SANAYİ VE
TEKNOLOJİ BAKANLIĞI**

MET News

ISO Energy Efficiency Award,
CERN Tender,
Ericsson Innovation Awards



MET İleri Teknoloji Sistemleri'ne Enerji Verin

21.01.2020 Firmalardan Haberler



ET,

Congratulations! Your big idea has earned you the opportunity to move forward to the semi-finals and of the 2017 Ericsson Innovation Awards! Keep reading to learn about next steps and prizes.

This year's Ericsson Innovation Awards had a record number of submissions – 907 teams! For this reason, we have expanded this year's semi-finalist to 13 teams. Being selected as one of the 13 semi-finalist teams means you were in the top 1% of all submissions. You now have access to mentorship from Ericsson Experts and the chance to make your idea a reality.

TÜBİTAK PROJECTS

1

DEVELOPMENT OF HYBRID
INDUSTRIAL MICROWAVE OVEN WITH
UV (ACTIVE)

3190919 - 1501- Budget \$100000



2

MACHINE LEARNING AND IMAGE
PROCESSING SUPPORTED ROBOTIC FIG
SORTING SYSTEM (ACTIVE)

3181404 - 1501- Budget \$110000



3

DEVELOPMENT OF ORGANIC
PRODUCT DRYING LINE WITH HIGH
POWERED MICROWAVE OVEN
DESIGN

3151054- 1501- Budget \$80000



TÜBİTAK PROJECTS

4

RESIZABLE POLYURETHANE FIXTURE
FOR INDUSTRIAL KITCHEN HEATERS
AND COOLERS

7150896 - 1507- Budget \$105000

5

HIGH EFFICIENCY HEAT EXCHANGE
PLATES AND RADIATORS

7150701 - 1507- Budget \$102000

6

HIGH EFFICIENCY HEAT EXCHANGE
PLATES AND RADIATORS

2130039 - 1512- Budget \$20000

KOSGEB PROJECTS

1

RESIZABLE POLYURETHANE FIXTURE
(METFIX) EXPORT PROJECT (ACTIVE)

KOBİ Teknoyatırım - Budget \$200000

2

HIGH EFFICIENCY HEAT EXCHANGE
PLATES AND RADIATORS

Industrial Application Support Program- Budget
\$55000

3

MACHINE LEARNING AND IMAGE
PROCESSING SUPPORTED ROBOTIC
FIG SORTING SYSTEM (ACTIVE)

R&D Innovation Project - Budget \$35000

METSORT

37

R&D Projects

37 R&D
projects
approved by
Ministry of
Science

METSORT

IMAGE PROCESSING



METWAVE

FOOD ENGINEERING



METWAVE

AGRICULTURAL ENGINEERING



METROBOTICS

ROBOTICS



METWAVE

MINING ENGINEERING



METSORT

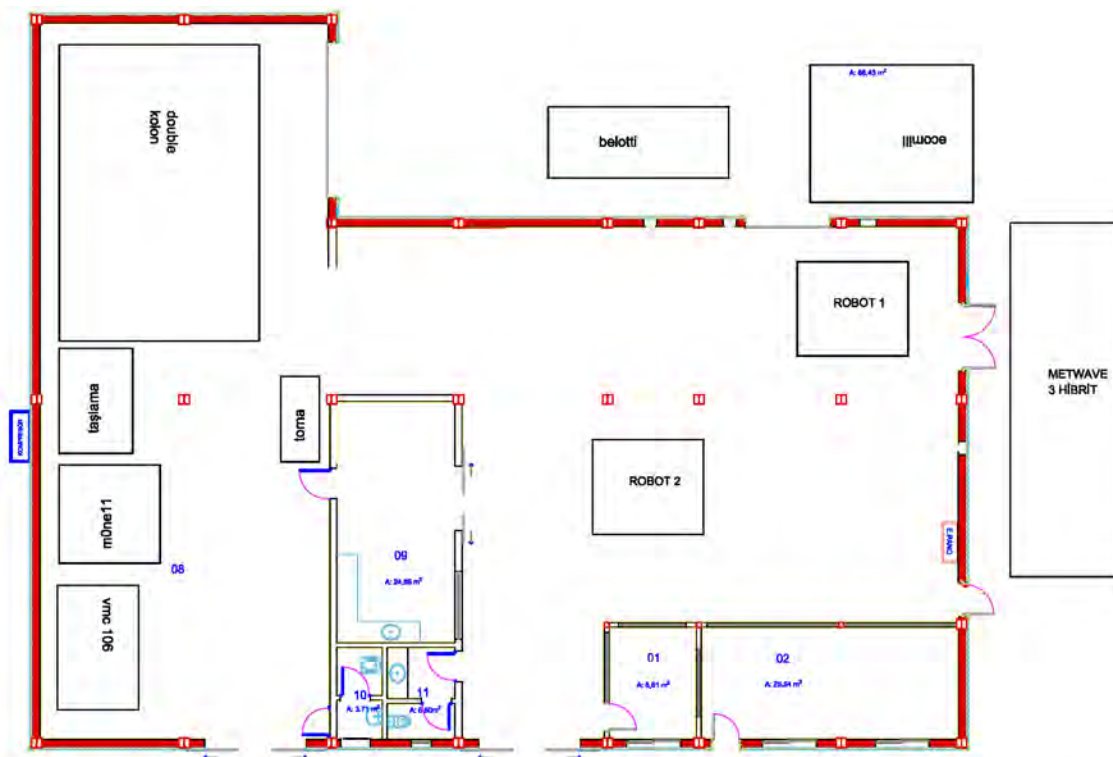
PHOTONIC



MET - ACADEMY COOPERATION

MET FACTORY

MET designs, produces and commissions projects in its factory.



Located in Izmir Institute of Technology Campus



DOUBLE COLUMN MACHINING CENTER MACHINING - CNC

X:3100mm
Y:2700mm
Z:1100mm
Column Width: 2300mm Max.
Loading Capacity: 14 tons
ATC, 90 Degree Head
M800 CNC



VERTICAL MACHINING CENTER MACHINING - CNC

X:1100mm
Y:600mm
Z:600mm
Loading Capacity: 1 ton
ATC, M70 CNC



VERTICAL MACHINING CENTER MACHINING - CNC


X:1020mm
Y:600mm
Z:635mm
Loading Capacity:1 ton
ATC, Fanuc 21i-MB



SYNERGIC WELDING MACHINE

Double Pulsed MIG (GMAW-
Pulsed MIG (GMAW-P)
MIG (GMAW)
Lift-Arc™ TIG (GTAW)
Stick (SMAW)

Rated Current:
350 A @ %60 duty cycle



AUTOMATIC SAW

Cutting Speed: 25 - 90 m/dk
Capacity:



	0°	60°	-30°
Ø	350 mm	310 mm	175 mm
■	270 mm	270 mm	150 mm
	270 x 400	270 x 280	150 x 160

TAPPING MACHINE

Hydraulic Tapping
M5 - M24 Range
700x900 mm Working Table
0-600 rpm



SURFACE GRINDING
MACHINING-
UNIVERSAL



210-460 mm max. cross transverse
375-900mm max. longitudinal
Travel
400 x 1.000 mm Table
312-422mm Max. Spindle Center
Height above Table

LATHE
MACHINING- UNIVERSAL



Length: 1.000 mm
Swing Over Bed: 400 mm
Swing Over Cross Slide: 240 mm
Swing in Gap: 580 mm
Spindle: 25 - 1.600 rpm

VERTICAL MACHINING
CENTER
MACHINING - CNC

X:1300mm
Y:600mm
Z:600mm
Loading Capacity: 1,5 ton
90 Degree Head
Fanuc Oi-Mate



TIG WELDING MACHINE



AC/DC TIG

Rated Current:
200 A @ 60% duty cycle

SHAPER
MACHINING- UNIVERSAL



Table Travel:
285 mm Horizontal
180mm Vertical
Tool Vertical Travel: 70 mm
Speed: 3

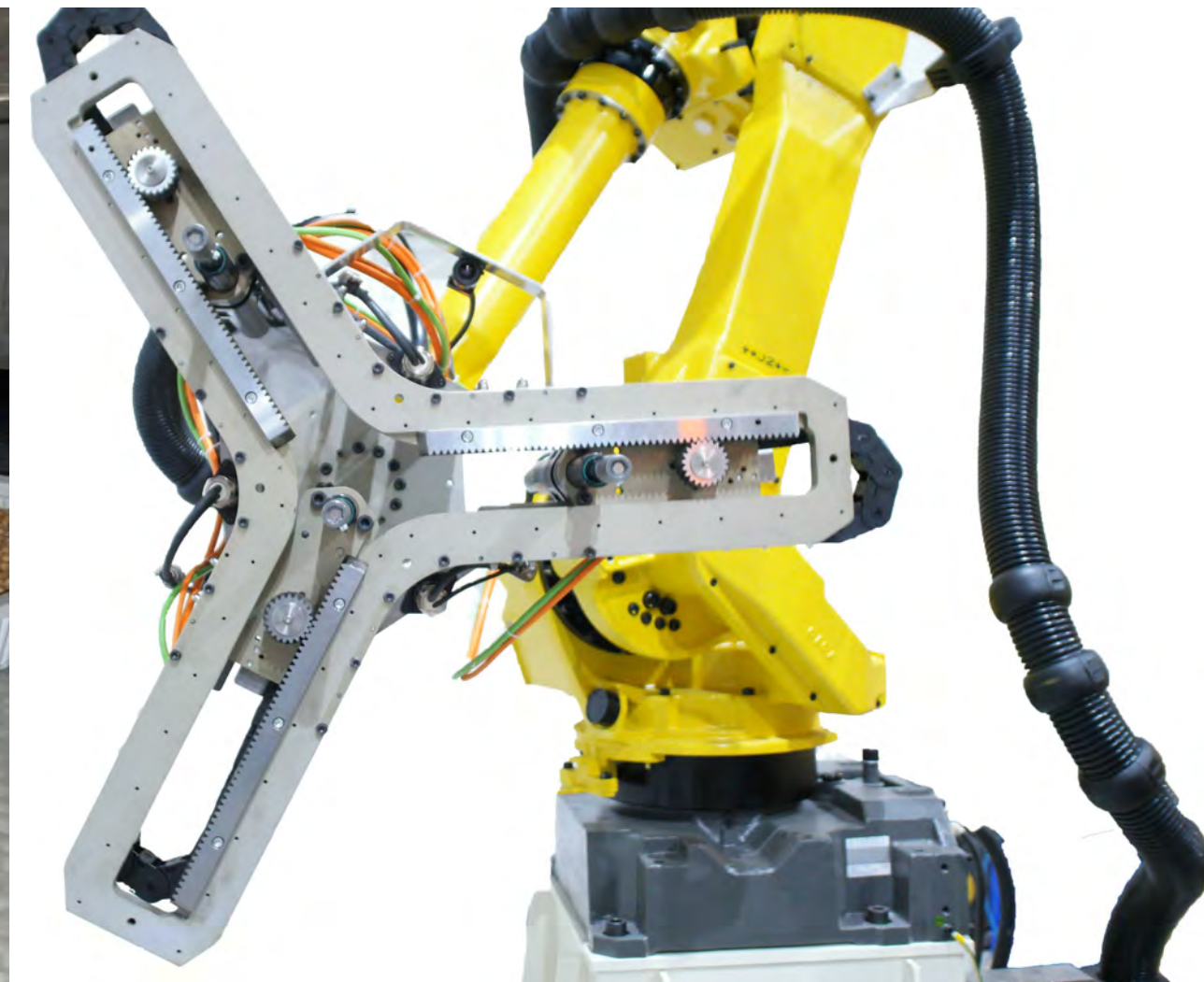
5 AXES ROUTER
MACHINING - CNC

X:3100mm
Y:1400mm
Z:900mm
Loading Capacity :1 ton
2 spindle
OSAI CNC



MET FACTORY

New R&D Projects Possibility with Existing Robots and Microwave



Team

31



Murat Merdin
CEO, Cofounder

MBA, 13 Patents in Robotics & AI
UAV Maintenance Station Patent Pending
Founder of MET Robotics,
Delivered +40 projects globally (+€5M)
Made Long Standing Commercial
partnerships with leading tech firms in
imaging, automation & Robotics
Spearheads DRONEQUBE
Decade of Industry Experience
Began as Drone Hobbyist (2010)



Oğuz Merdin
CTO, Cofounder

Holds an MSc in Radio Frequency,
Began drone innovation in 2010
Co-Holds 12 patents in robotics and
automation technologies
Expert in robotics systems architecture
and key innovator for DRONEQUBE
Managed and executed automation
projects worth over €3M
Proficient in PLC, Robotics, Safety
Standards, and brands like Fanuc,
Siemens
8+ years of dedicated experience in the
robotics industry



Caner Karagüler
AI Team Leader

Holds and MSc in AI,
AI Specialist in Agriculture
Led AI Detection for Aflatoxin in Figs
Innovated in Dental Implant AI
Master's in AI & Computer Science
+5 Years, +10 AI Projects in AgriTech

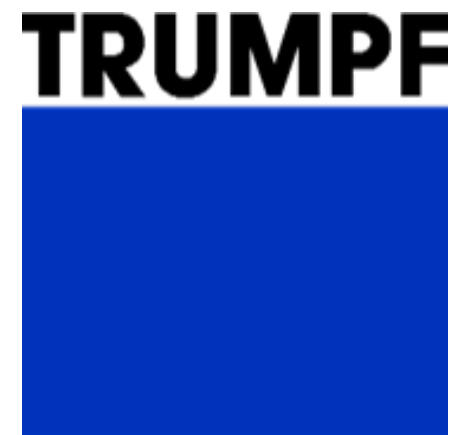
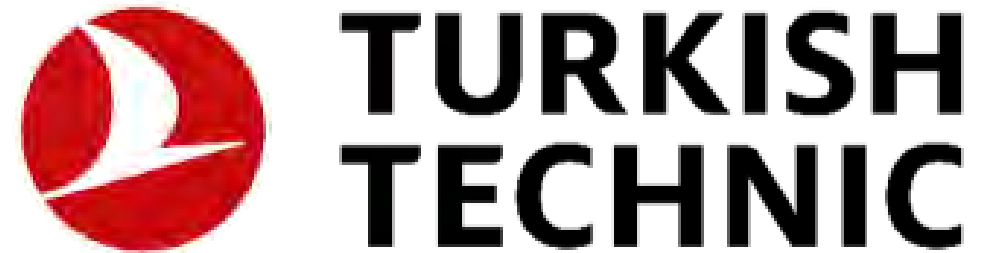


Mert İli
R&D Design Engineer

MSc Candidate in ME,
Mechanical Engineer who
Designs and Optimizes
Industrial Machinery
Advanced 3D Modelling Skills
R&D Experience in Robotics
and Automation
Organizational Leadership at
IZTECH Innovation Club

CUSTOMERS

Customers in Automotive, White Goods, Aerospace, Chemical, Electronics and other industries

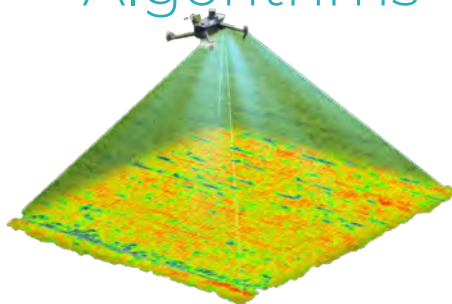


Technology

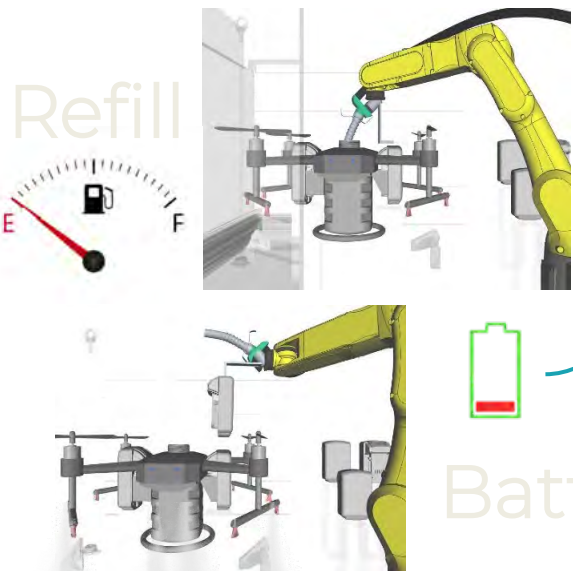
Precision Photo
Alignment Engine



Early Problem
Detection
Algorithms



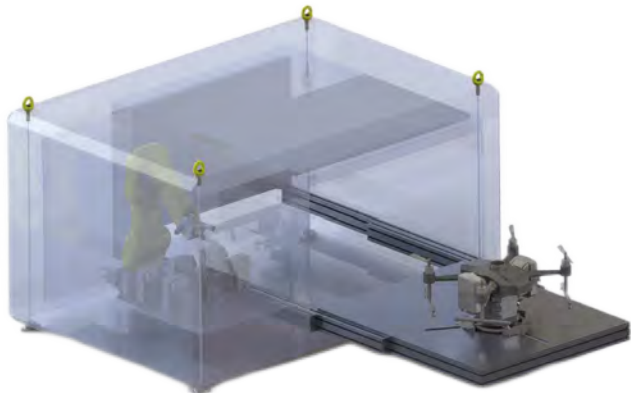
Robust Refill &
Battery Swap



Batte
ry



Weather
Monitoring



Patent
Application

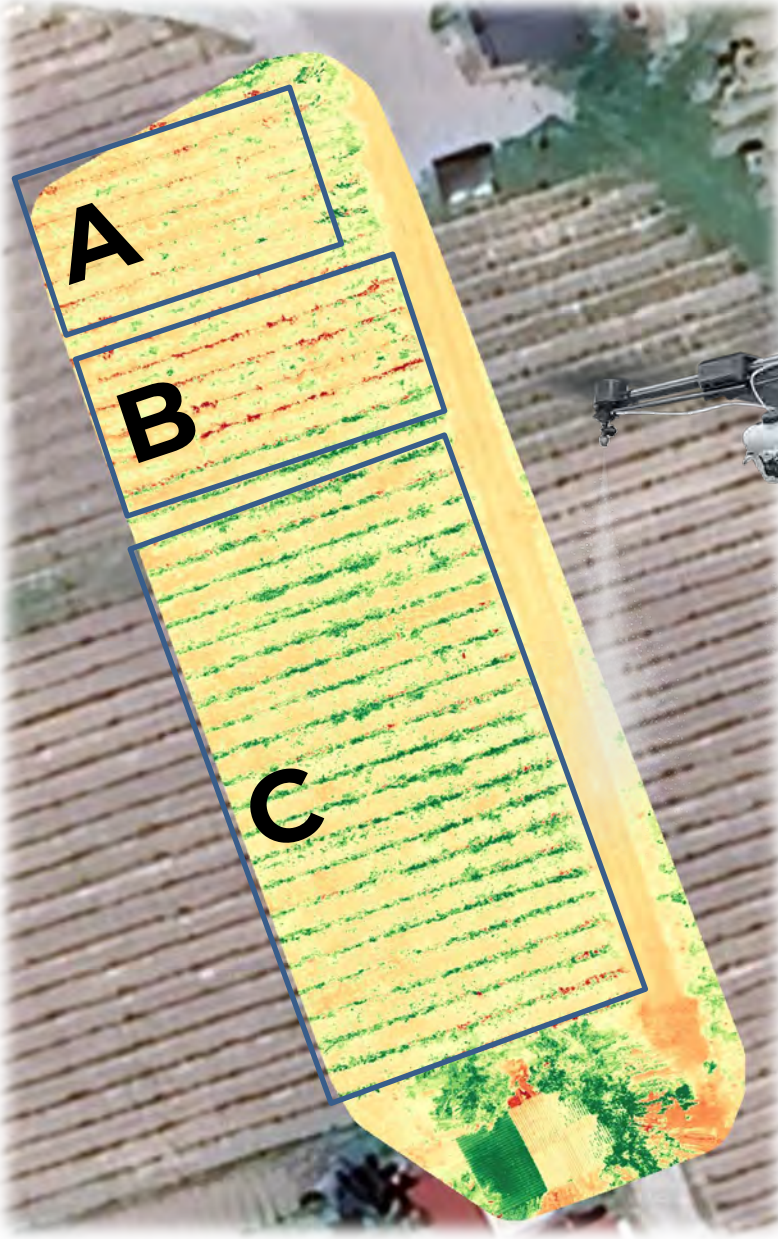


Trademark
Registration
#1700056



Autonomous
Variable Rate
Spraying

A	\$	(x lt/ha)
B	\$\$	(2x lt/ha)
C	\$\$\$	(3x lt/ha)



-30% Agrochemical & Water Consumption
+20% Yield





Leaf

Leaf

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Leaf

Cordon

Cordon

Cordon

Cordon

Cordon

Cordon

Cordon



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www.metltd.net



Murat Merдин