FAutomation

FORM ROBOT VE OTOMASYON TEKNOLOJİLERİ

Additive
Academy
Automation

Firmamız Hakkında

Form Makina, 1992 yılında kuruldu.

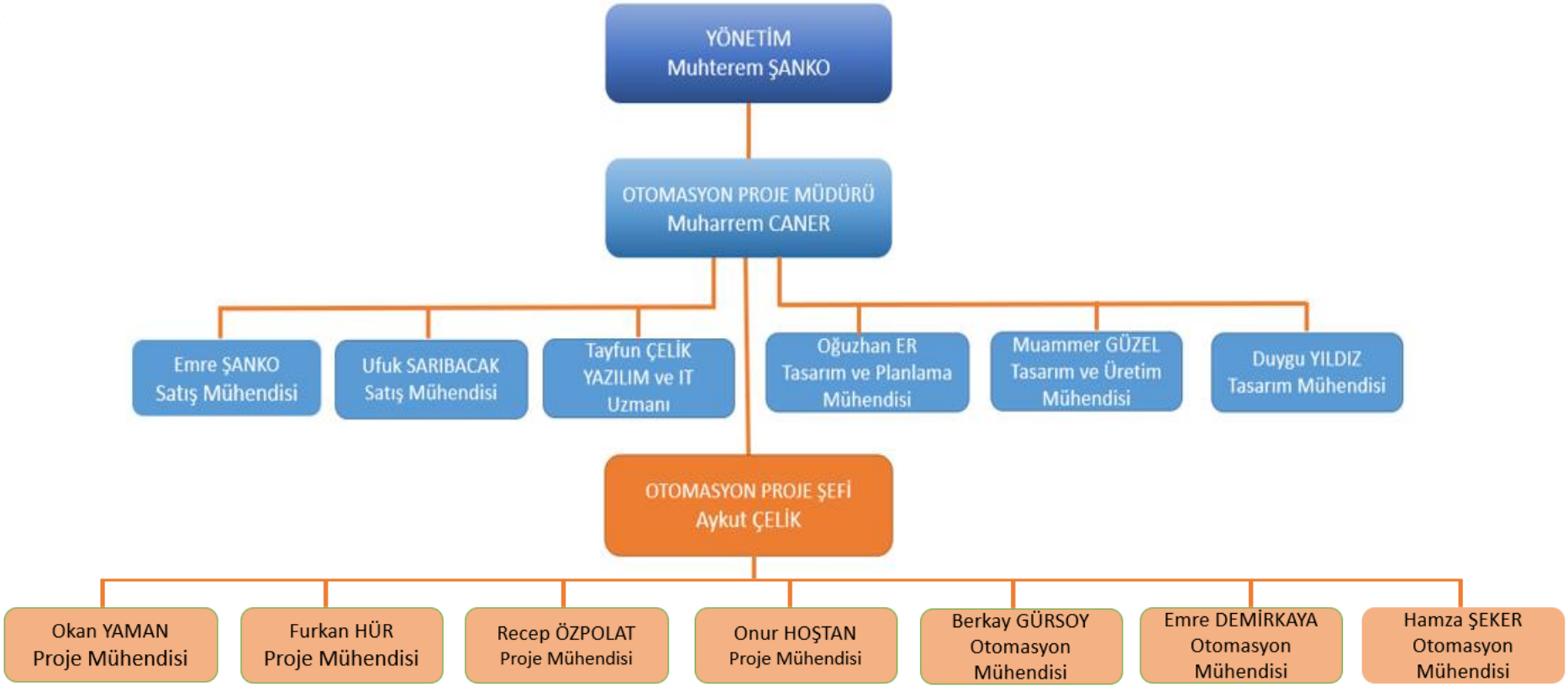
120 kişilik satış ve servis mühendisi ile hizmet vermektedir.
İstanbul HQ ,Ankara,İzmir,Bursa,Konya Ofisleri bulunmaktadır.
Şirketimizin temsil ettiği mümessillikler,

•Japon Mazak CNC takım tezgahları,
•İsviçre Studer Taşlama/Walter Takım Bileme
•Japon Nomura Kayar Otomat
•Güney Kore Komatech Tapping Centre

Form Robot & Otomasyon, 2015 Ocak ayında Form Makine grup şirketi olarak kendi alanında hizmet vermeye başladı;

Kuka, **Fanuc, Staubli, ABB, Yaskawa,Mitsubishi,Nachi** robotları ile proje çalışmaları yapmaktadır.

Form Robot & Otomasyon



TOPLAM 16 KİŞİLİK MÜHENDİS KADROSU

Sistem Partnerimiz

KUKA Official System Partner

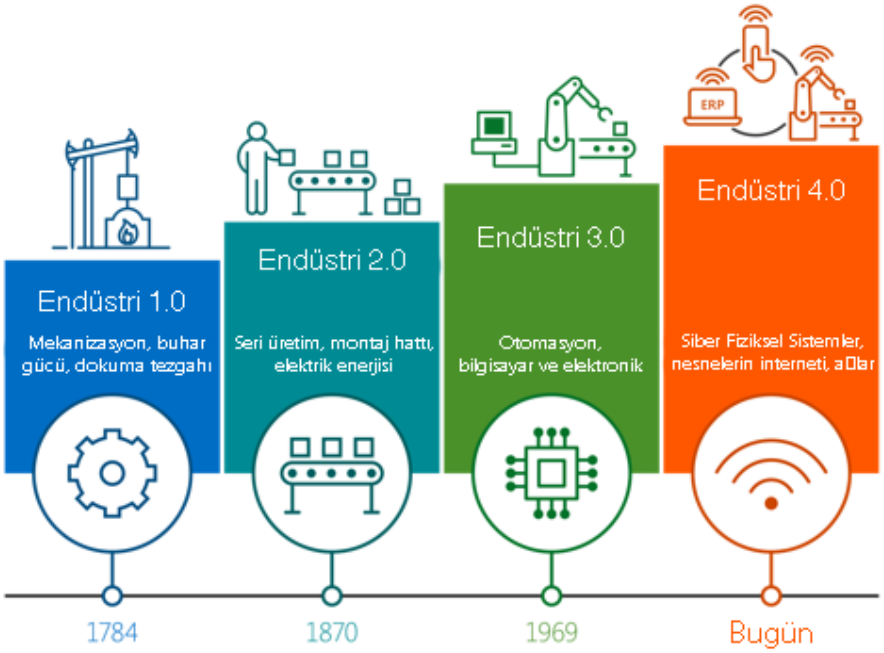
Sistem Tedarikçilerimiz

STÄUBLI

MITSUBISHI

NACHi

Endüstri Devrimleri



Uygulamalarımız ve Mühendislik Hizmetlerimiz

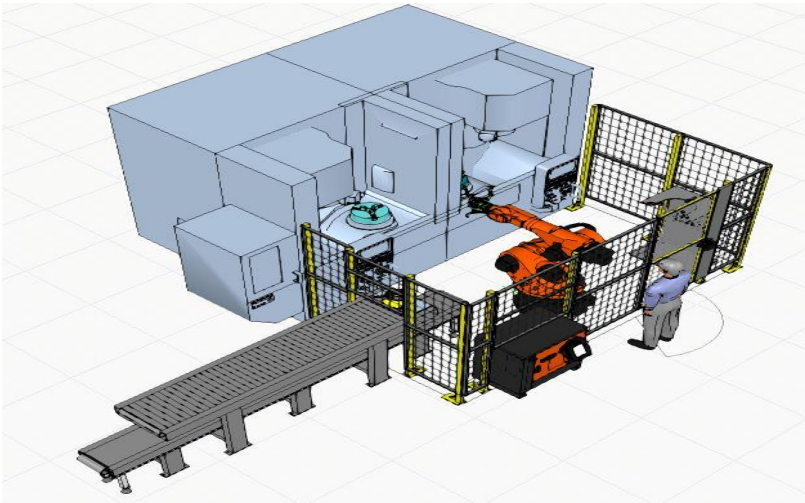
Uygulamalarımız ;

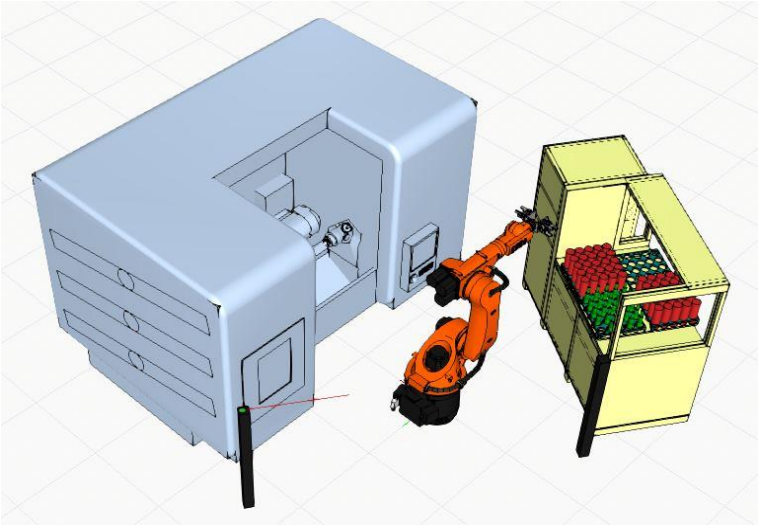
- CNC Tezgahlara Parça Yükleme Boşaltma Uygulamaları
- Parça ölçümü ve tezgahta çalışan takıma ofset verme uygulaması
- Markalama ve barkod ile takip uygulaması
- Kamera ile 2D ve 3D görüntü işleme uygulaması
- Özel otomasyon ve mühendislik çözümleri
- Parça yıkama ve çapak alma prosesleri
- Kaynak Uygulaması
- Taşıma Uygulamaları
- Montaj Uygulamaları
- Özel Makine İmalatı
- Siemens PLC ve HMI Ara Yüz Uygulamaları

Hizmetlerimiz ;

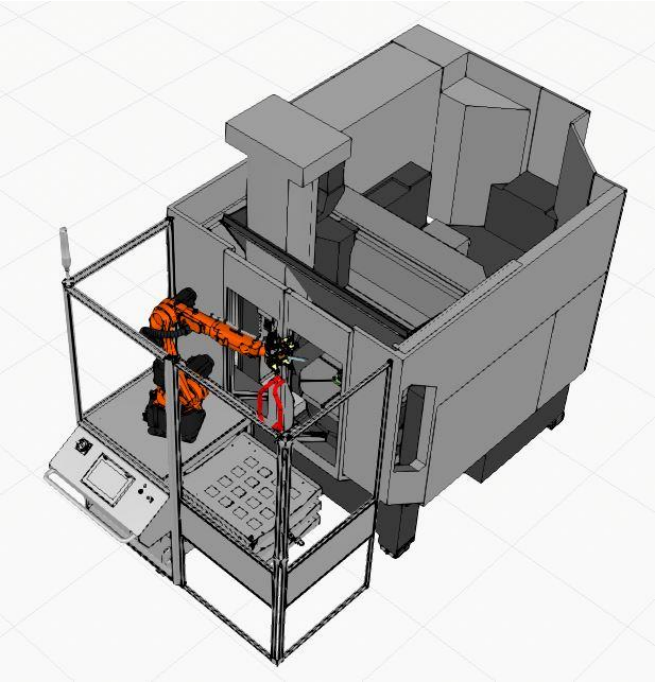
- Anahtar Teslim Projeler **CE** Normunda
- Tasarım ve Planlama **CE** Normunda
- Fizibilite Çalışması
- Eğitim Hizmeti
- Servis Hizmeti **CE** Normunda

CNC Tezgahlara Parça Yükleme Boşaltma uygulamaları





CNC Tezgahlara Parça Yükleme Boşaltma uygulamaları



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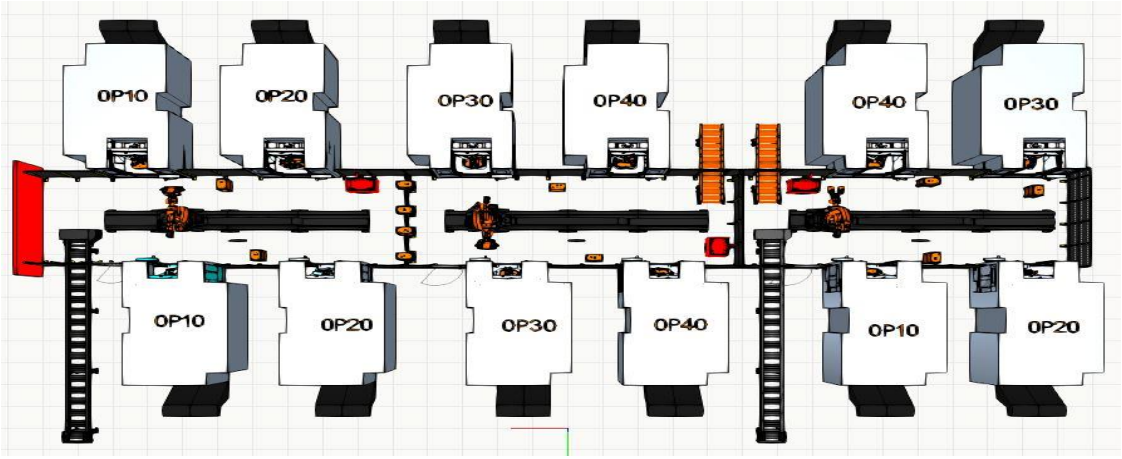
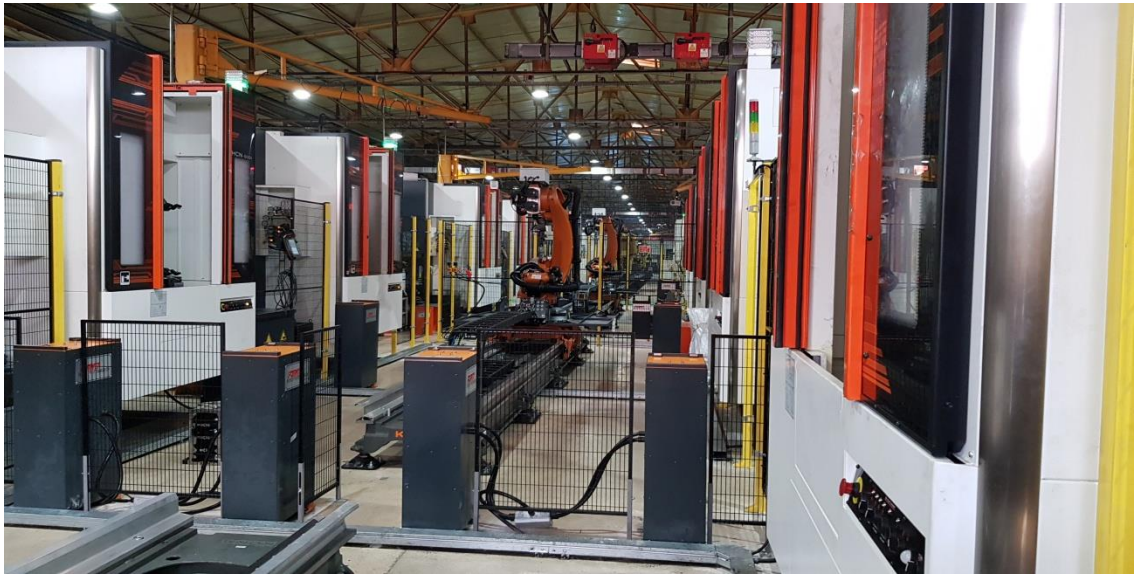
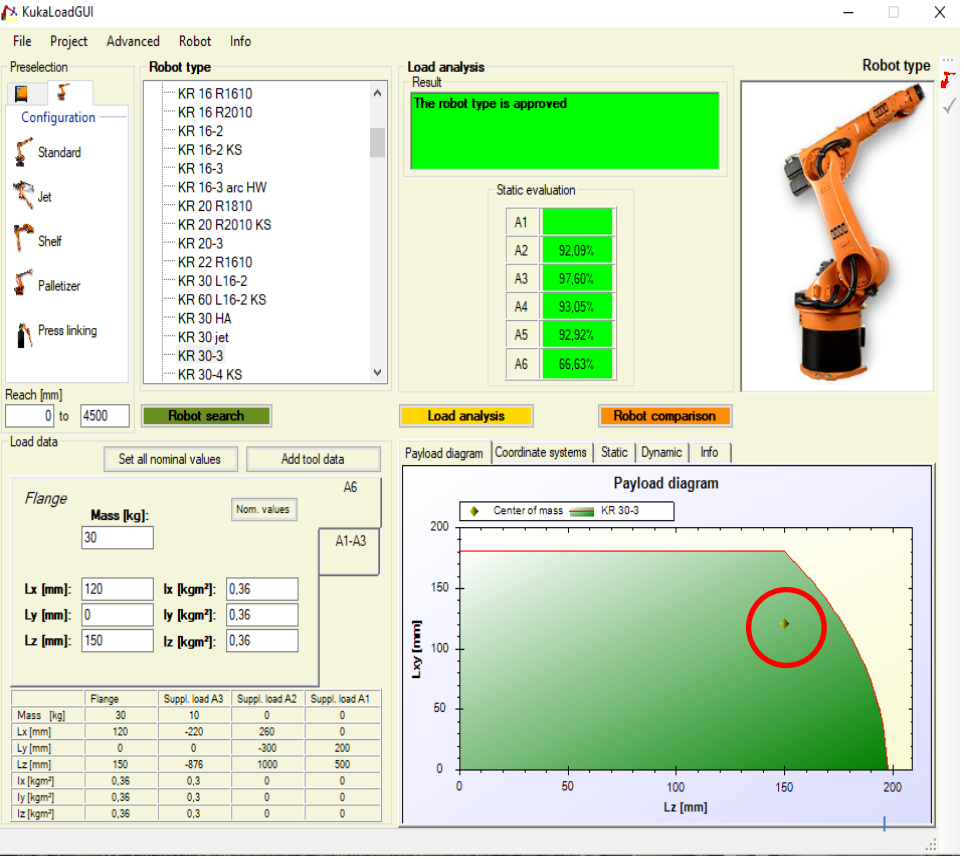
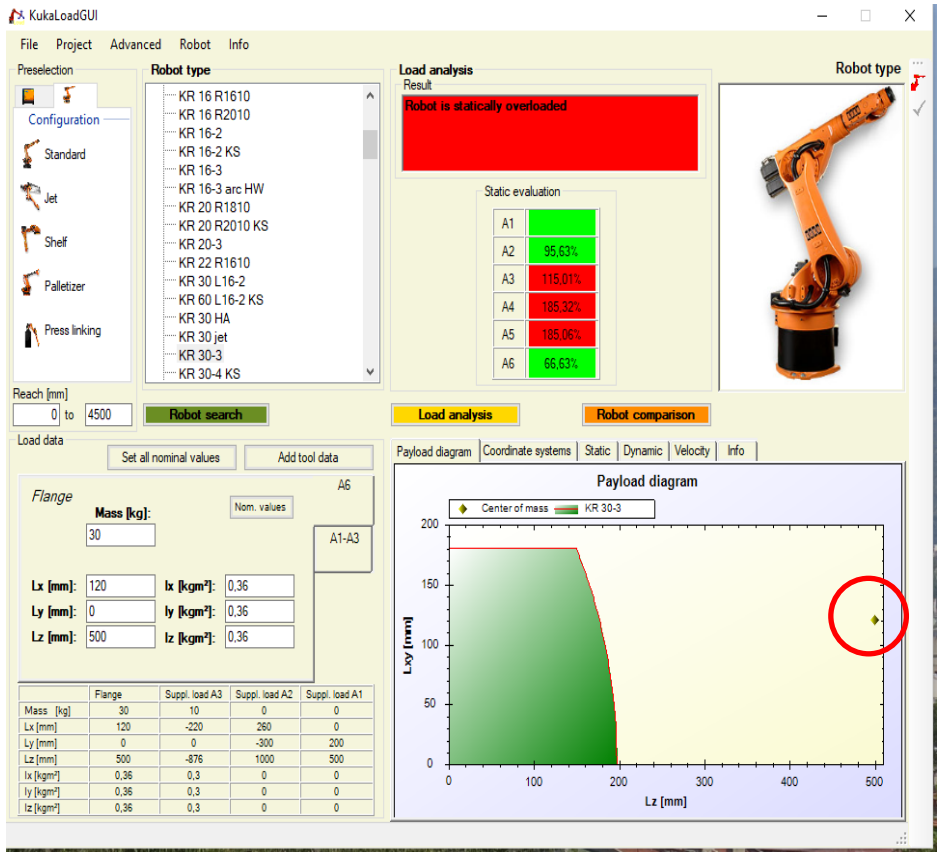




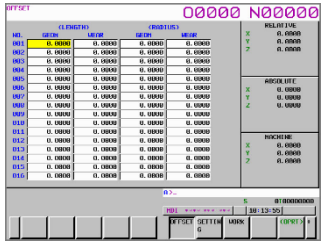
Robotların Statik ve Dinamik Hesapları

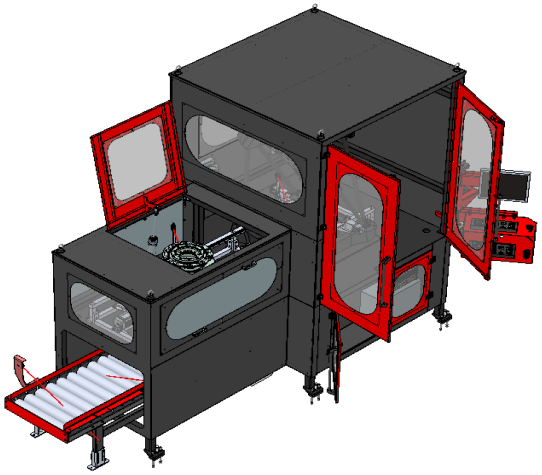
Doğru robot seçimi yapmak için taşınacak yüklere göre robotun erişim alanı içerisindeki tüm eksenlerin atalet momentleri hesaplanır.

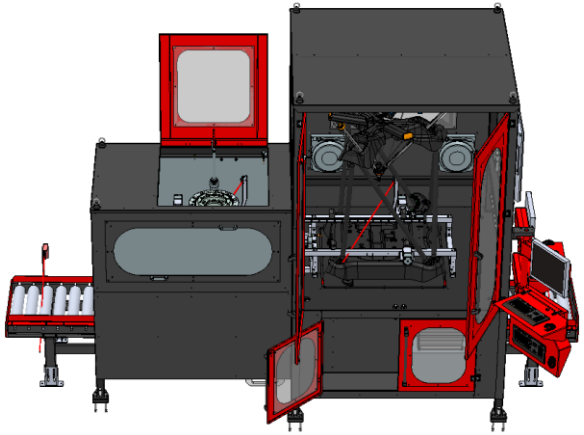


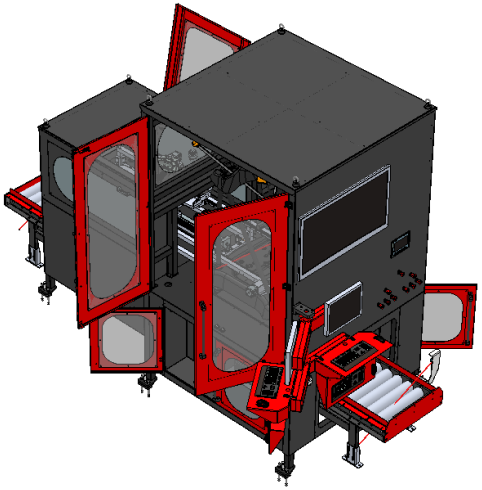


Parça ölçümü ve tezgahta çalışan takıma ofset verme uygulaması

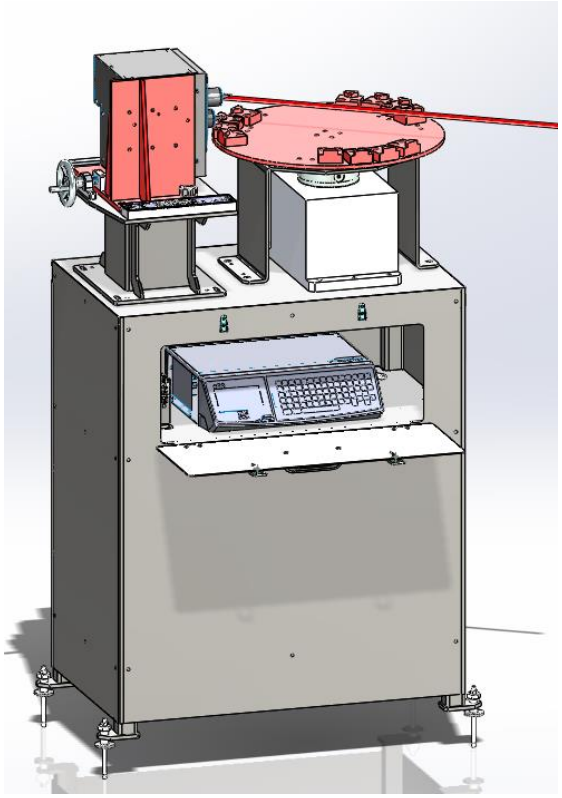


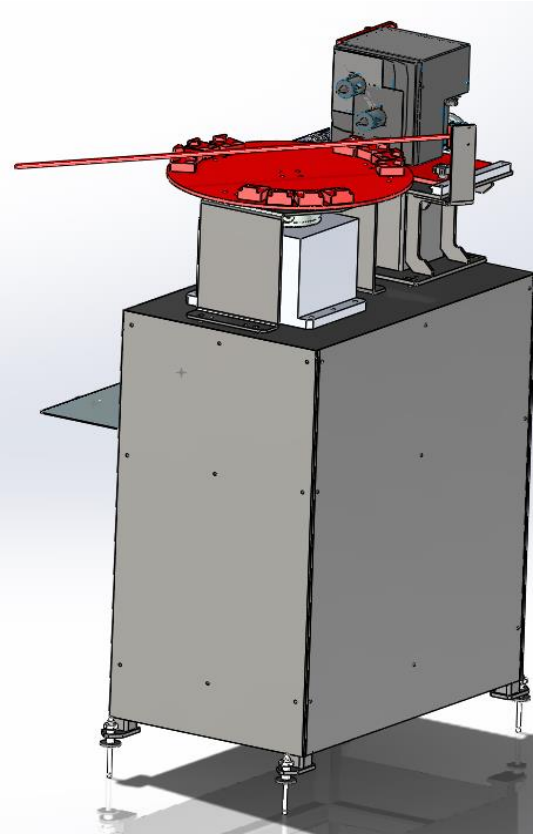




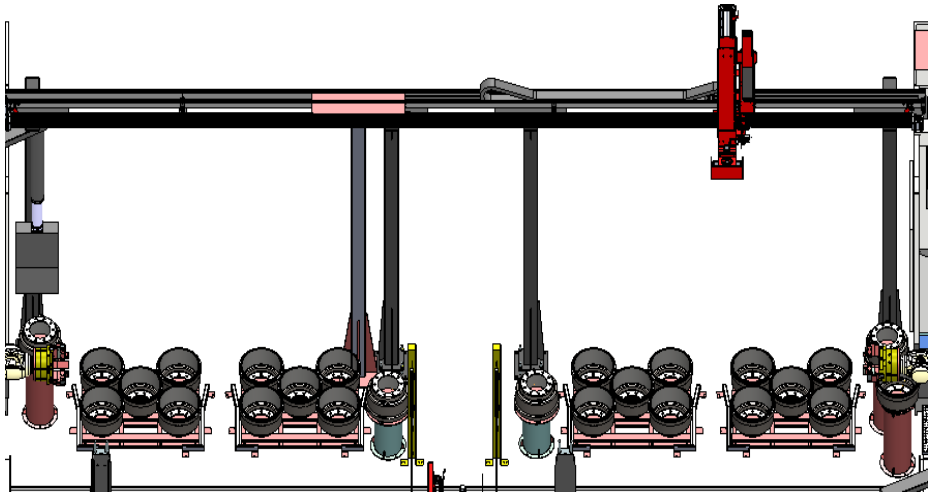


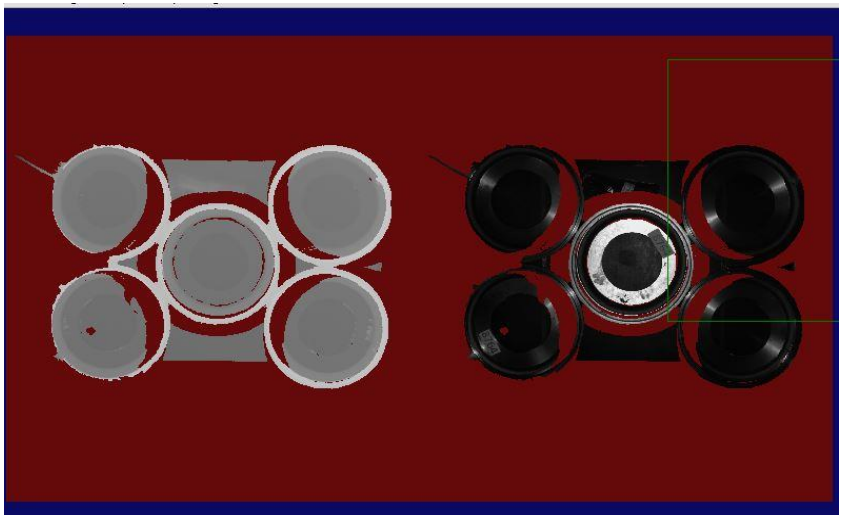
Markalama uygulaması

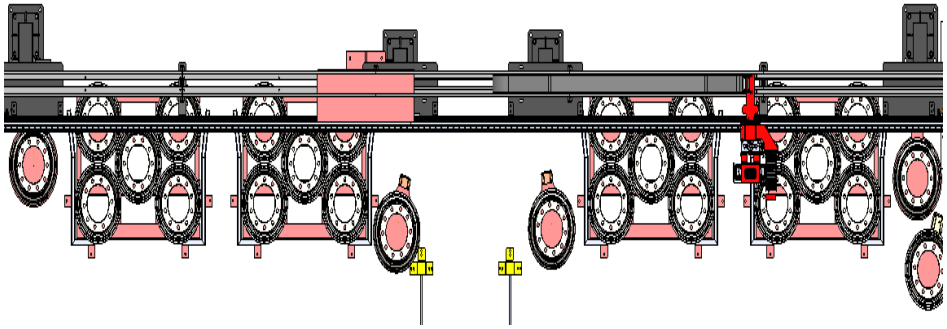


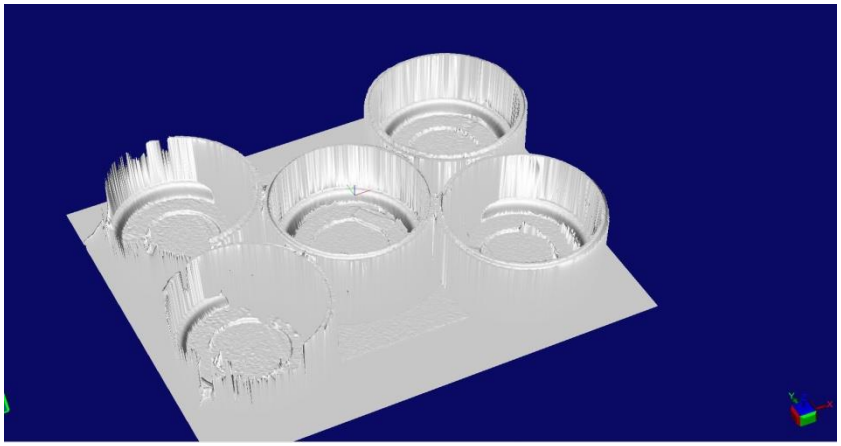


Kamera ile görüntü işleme 2D ve 3D olarak

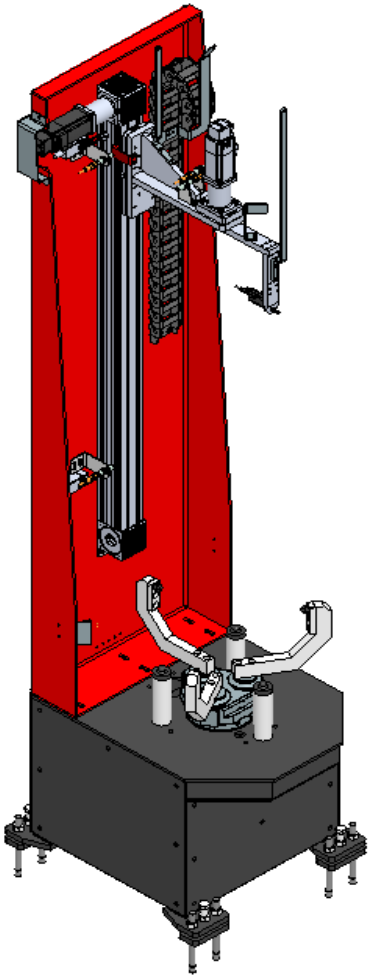


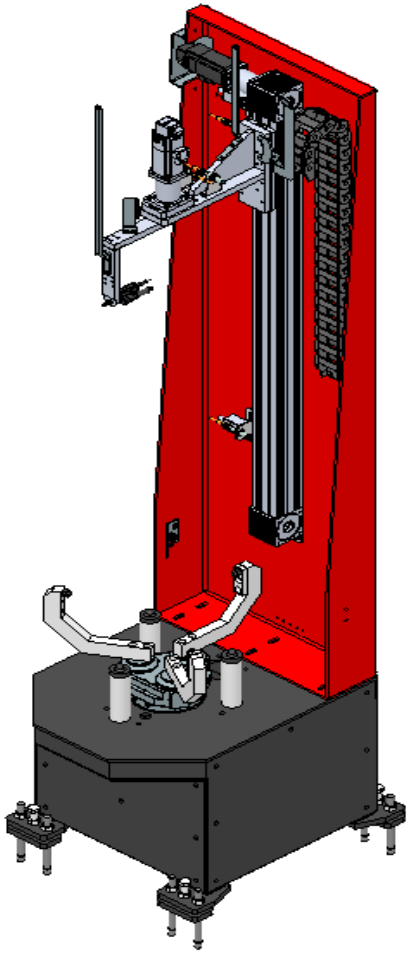




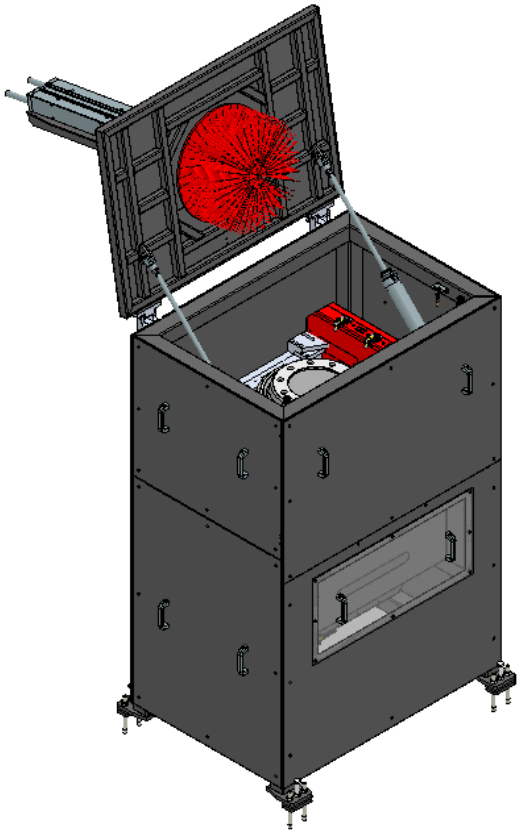


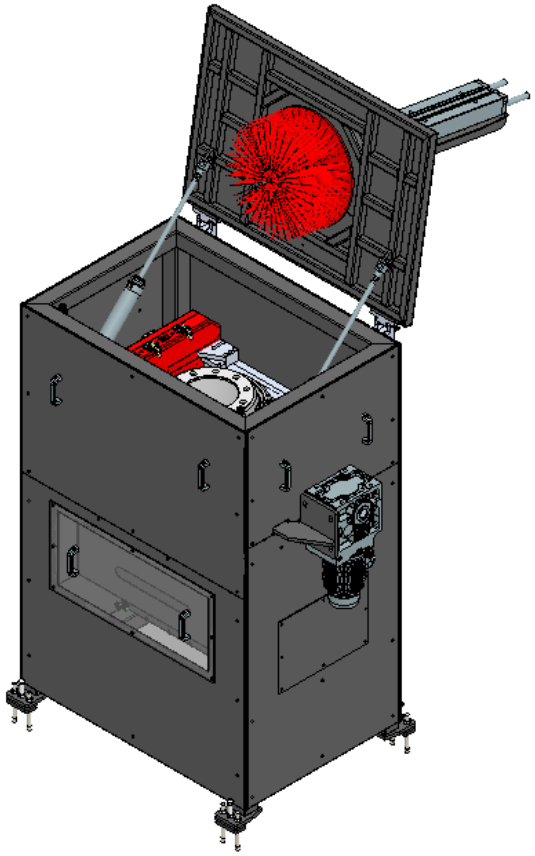
Özel parça salgı ölçüm sistemi



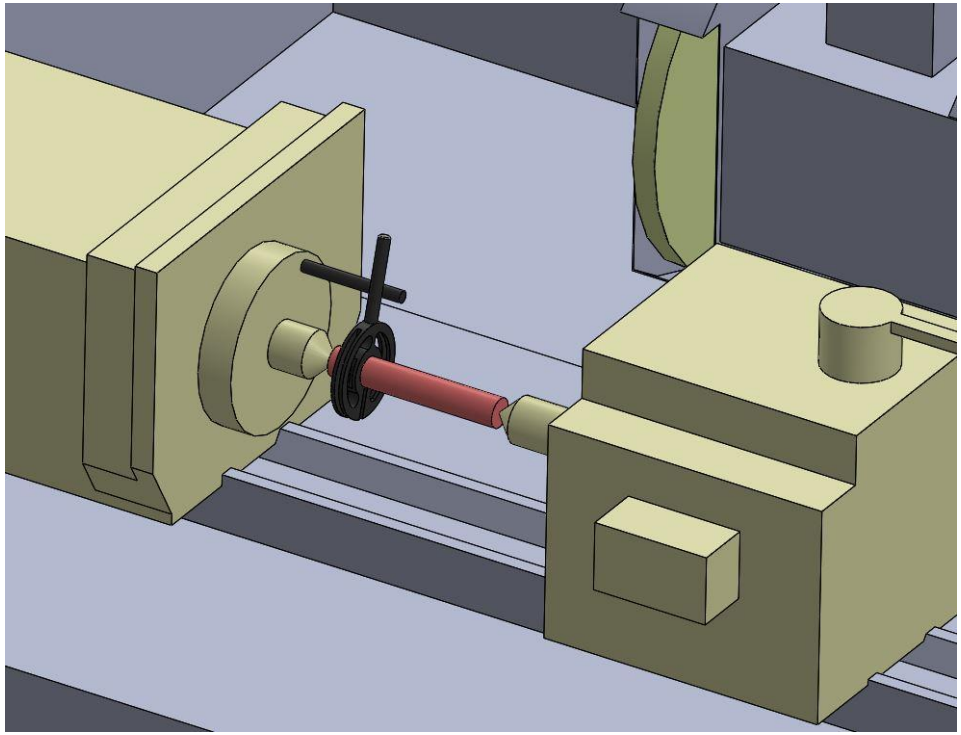


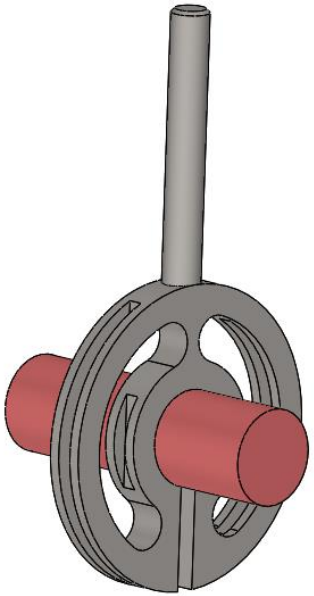
Parça temizleme ve çevirme sistemi





Silindirik CNC Taşlama Tezgahı Fırdöndü Uygulaması

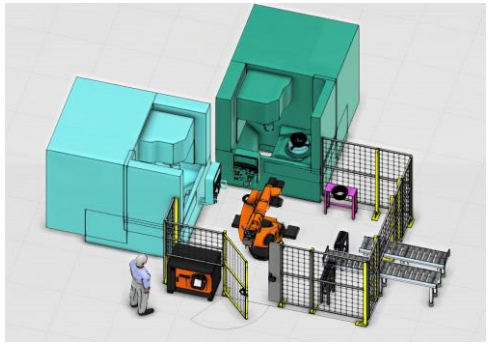


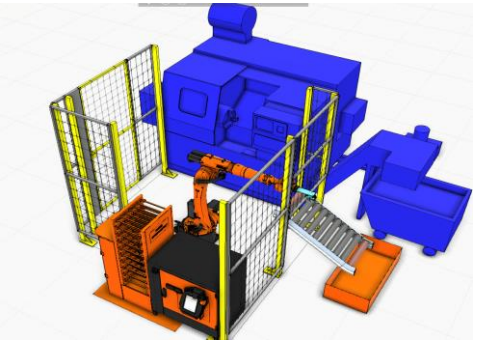


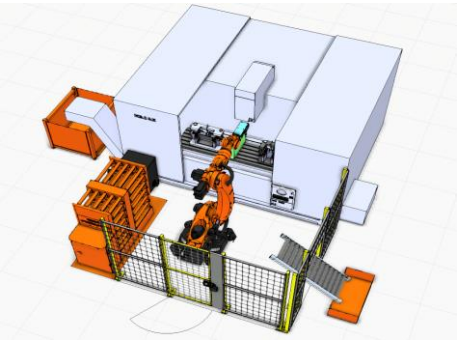
Tasarım

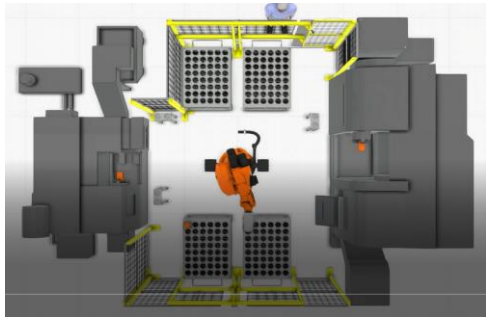
Form Otomasyon müşteriye özel robot ve otomasyon çözümleri sunar.

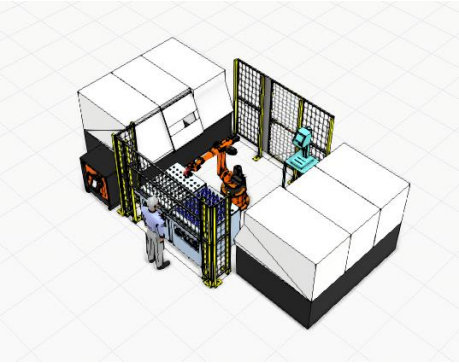
Tasarımlar müşterinin isteğine, sistemine ve ortam şartlarına göre hazırlanır.

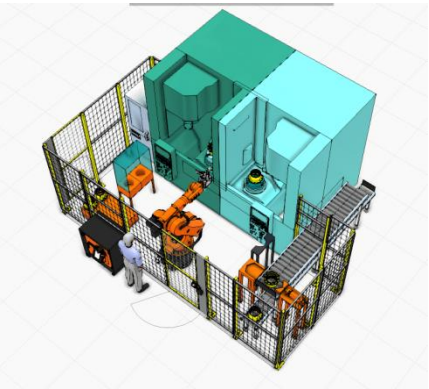




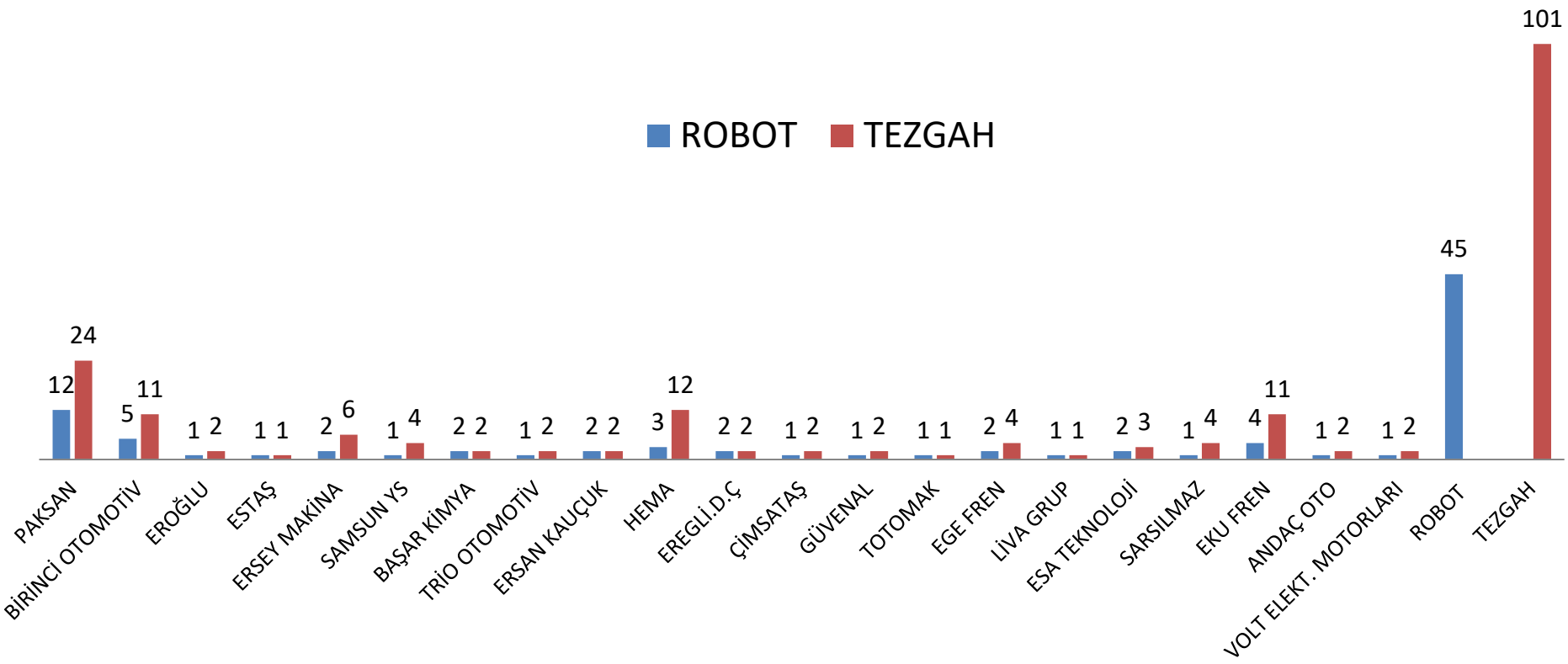








Robot & Otomasyon projelerimiz



Referanslarımız

Esa Teknoloji

PROJELERİMİZ

KUKA
HCN-6000

KUKA

Mazak
SMOOTH
MCD2516
MAKINO

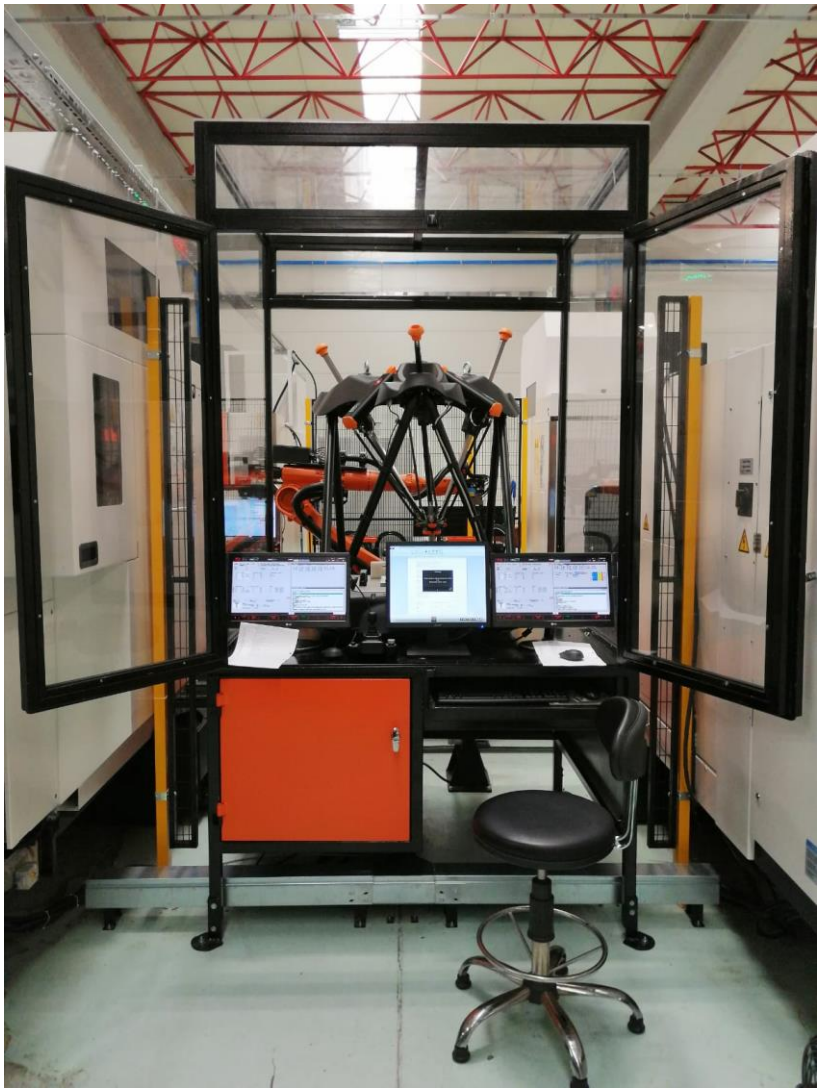
RoboForM
Plug & Play Systems
KUKA
C 40 U
RoboForM

Mazak
Mazak
MEGATURN
KUKA

Mazak
MEGATURN
MAZAK
MTN 600MS
KUKA

EROGLU
EROGLU

FAutomation



Mazak
KULAK TIKACINI TAK
KORUYUCU AYAKKABINI GİY
KORUYUCU ELDİVEN KULLAN
KORUYUCU GÖZLÜK TAK
ÖNCE GÜVENLİK / SAFETY FIRST
ROBOT HAREKET ALANI
YETKİLİDEN BAŞKASI GİREMEZ
ROBOT SAHASINA GİRMEK TEHLİKELİ ve YASAKTIR
DİKKAT
ACİL ÇIKIŞ YOLLARINDA MALZEME BIRAKMA
DİKKAT !!!
MASKESİZ KAYNAK YAPMA

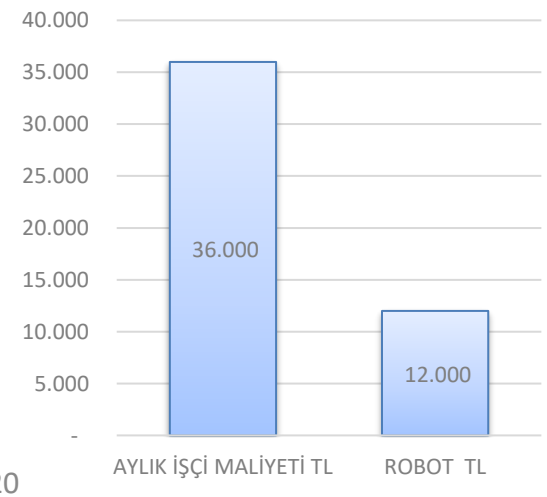
KULAK
TIKACINI TAK
KORUYUCU
ATARKADINI
GİY
KORUYUCU
ELİVİYEN KOLLAR
KORUYUCU
GÖZLÜK TAK
Mazak

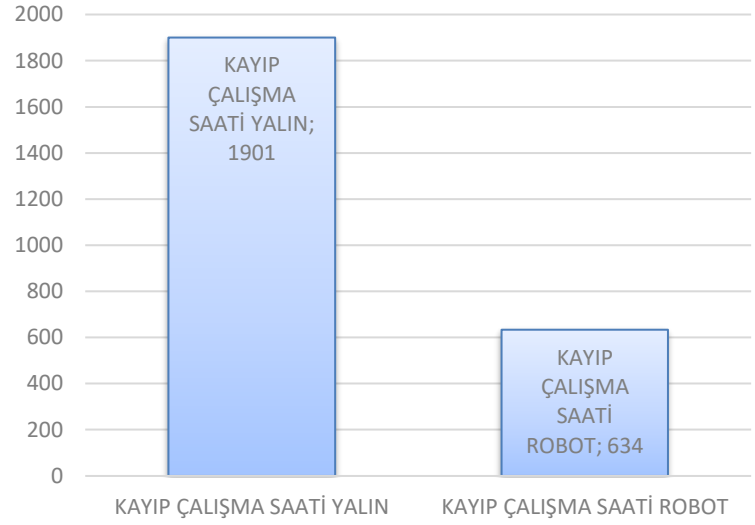
ÖNCE GÜVENLİK / SAFETY FIRST
ROBOT HAREKET ALANI
YETKİLİDEN BAŞKASI GİREMEZ
ROBOT SAHASINA GİRMEK TEHLİKELİ ve YASAKTIR
DİKKAT
ACİL ÇIKIŞ YOLLARINDA MALZEME BIRAKMA
DİKKAT !!!
MASKESİZ KAYNAK YAPMA
KUKA
SCANIA
SCANIA
SCANIA

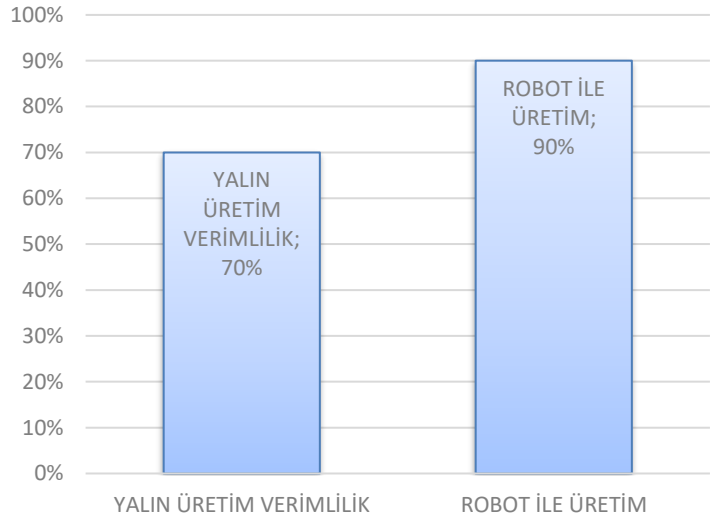
Robot Maliyet & Verimlilik Analizi

YALIN ÜRETİM	
TEK VARDİYADA ÇALIŞAN KİŞİ SAYISI	3
VARDİYA	3
ASGARİ ÜCRET İLE İŞÇİ MALİYETİ (YEMEK/YOL/SİGORTA) TL	4000
TOPLAM İŞÇİ MALİYETİ TL	36000
GÜNLÜK ÇALIŞMA SAATİ	24
MÜŞTERİ ÇALIŞMA SAATİ	22
GÜNLÜK KAYIP/ SAAT	2
YILLIK ÇALIŞMA SÜRESİ/GÜN	288
VARDİYALI YILLIK ÇALIŞMA SAATİ	6.336
GERÇEKLEŞEN YILLIK ÇALIŞMA/SAAT % 70 Verimlilik	4.435
YILLIK KAYIP/SAAT	1.901
YILLIK KAYIP/GÜN	86

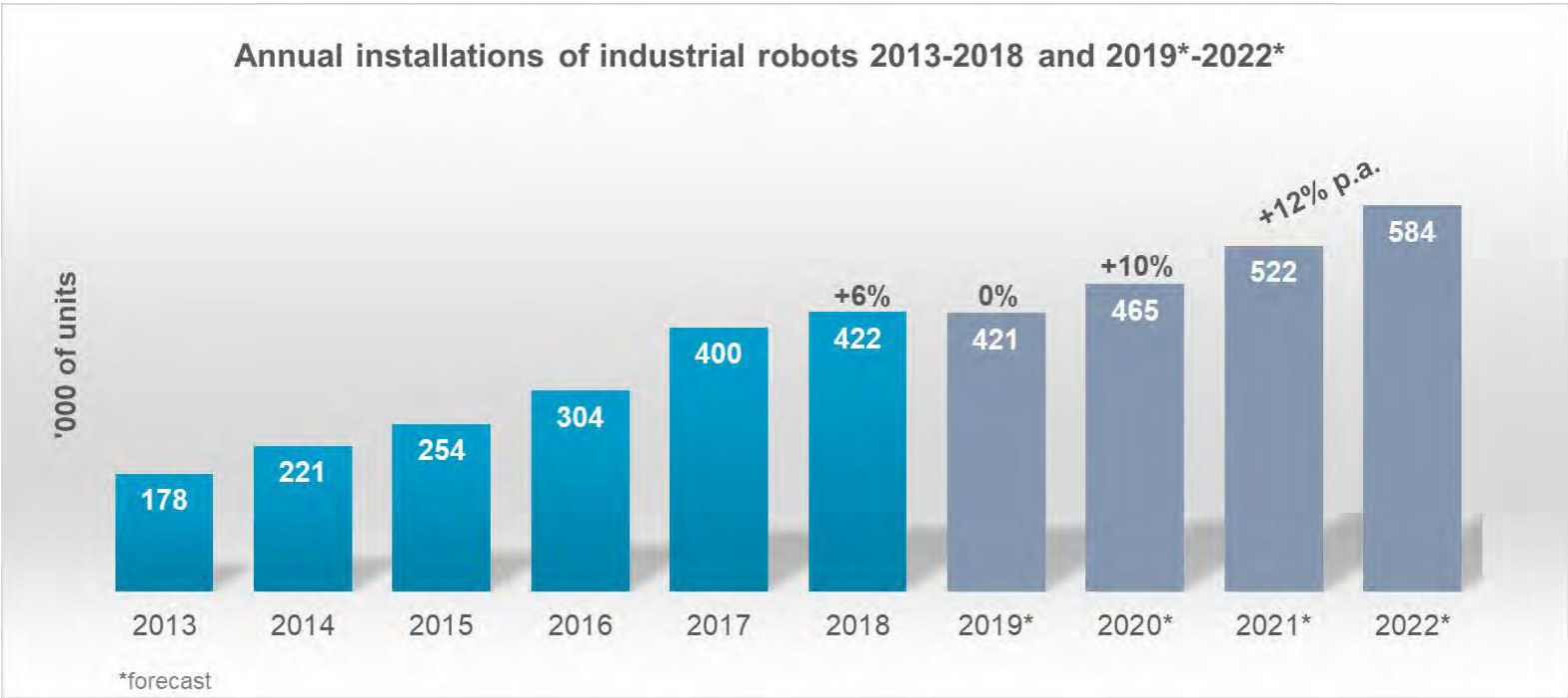
ROBOT İLE ÜRETİM	
TEK VARDİYADA ÇALIŞAN KİŞİ SAYISI	1
VARDİYA	3
ASGARİ ÜCRET İLE İŞÇİ MALİYETİ (YEMEK/YOL/SİGORTA) TL	4.000
TOPLAM İŞÇİ MALİYETİ TL	12.000
GÜNLÜK ÇALIŞMA SAATİ	24
MÜŞTERİ ÇALIŞMA SAATİ	22
GÜNLÜK KAYIP/ SAAT	2
YILLIK ÇALIŞMA SÜRESİ/GÜN	288
VARDİYALI YILLIK ÇALIŞMA SAATİ	6.336
GERÇEKLEŞEN YILLIK ÇALIŞMA/SAAT % 90 Verimlilik	5.702
YILLIK KAYIP/SAAT	634
YILLIK KAYIP/GÜN	29



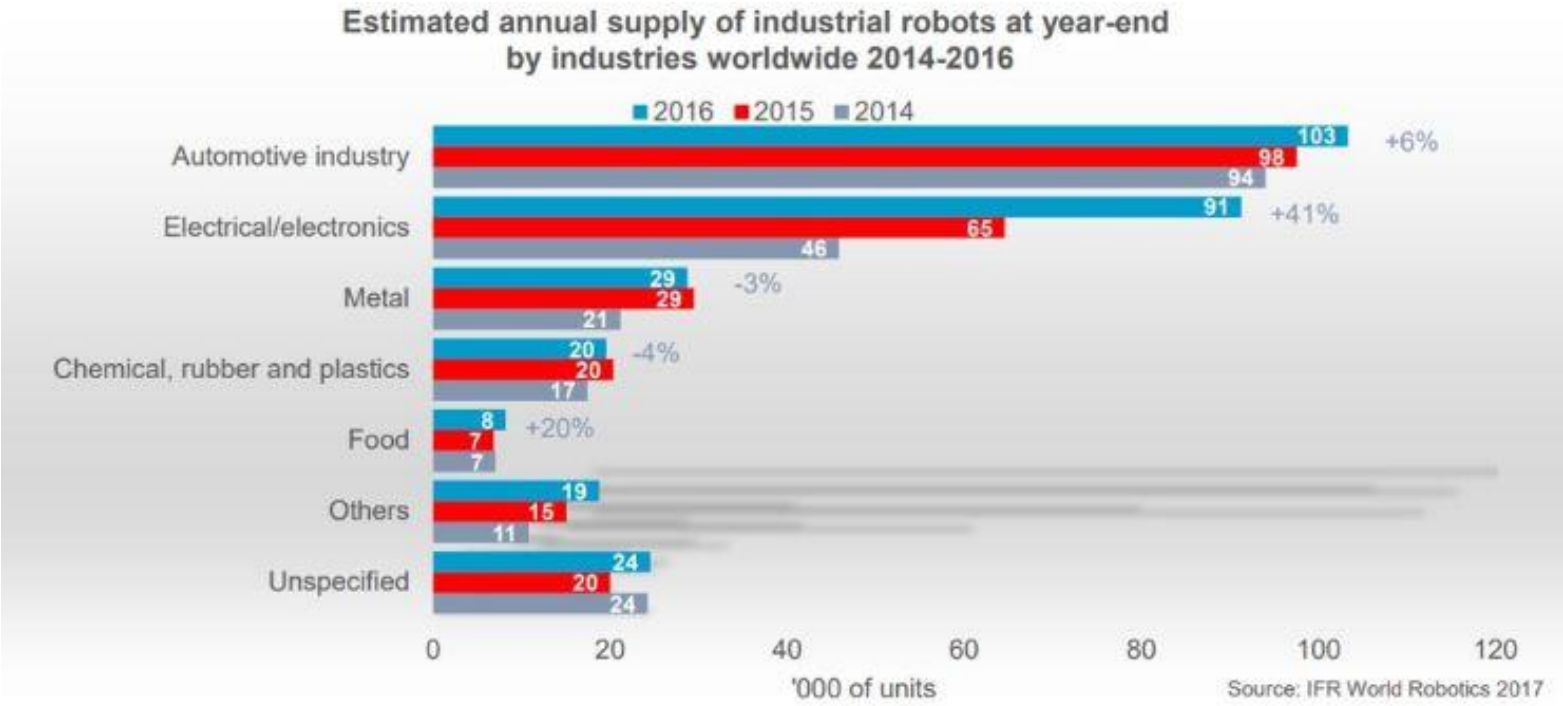




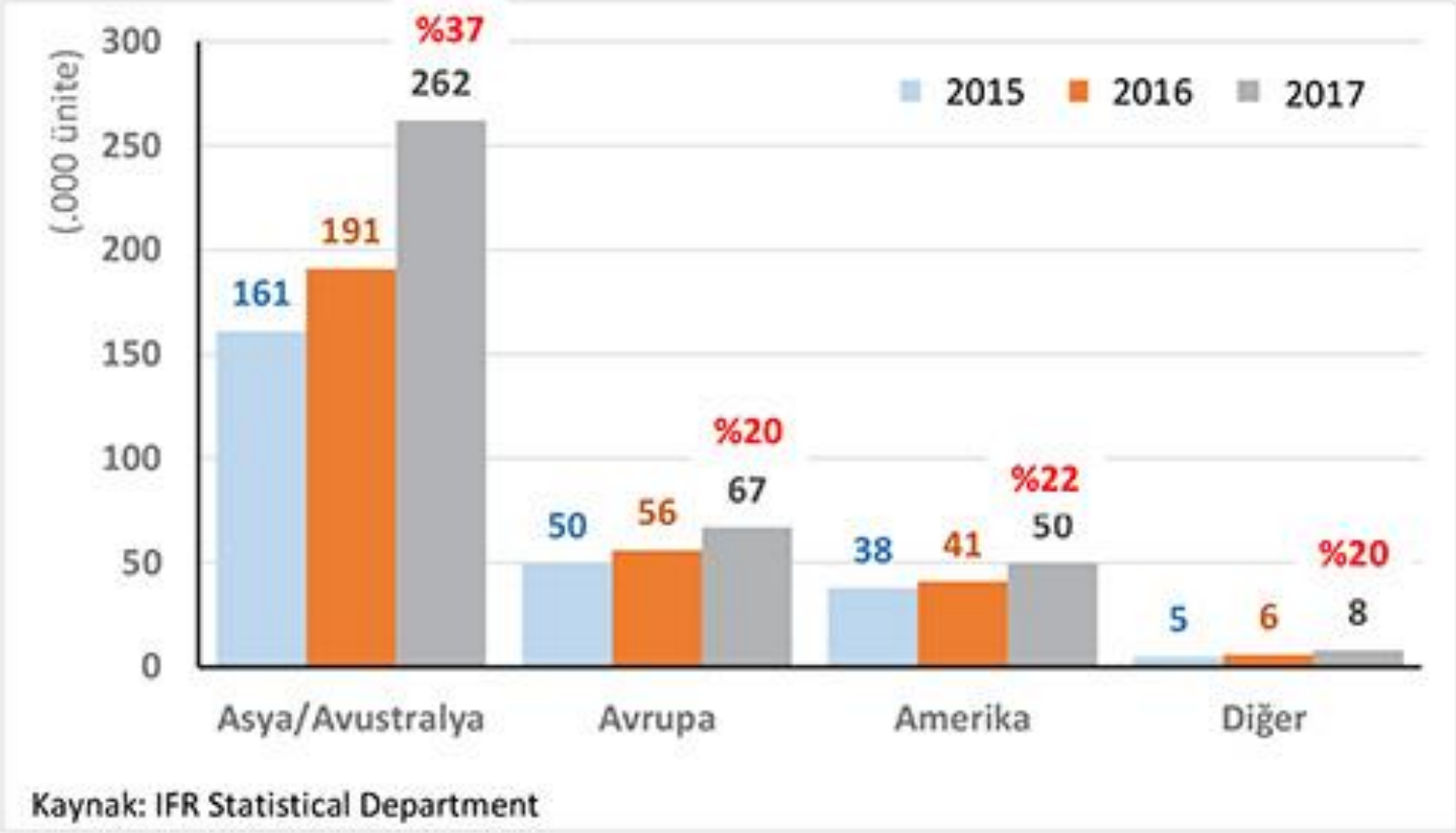
Global Yıllık Endüstriyel Robot Satışları



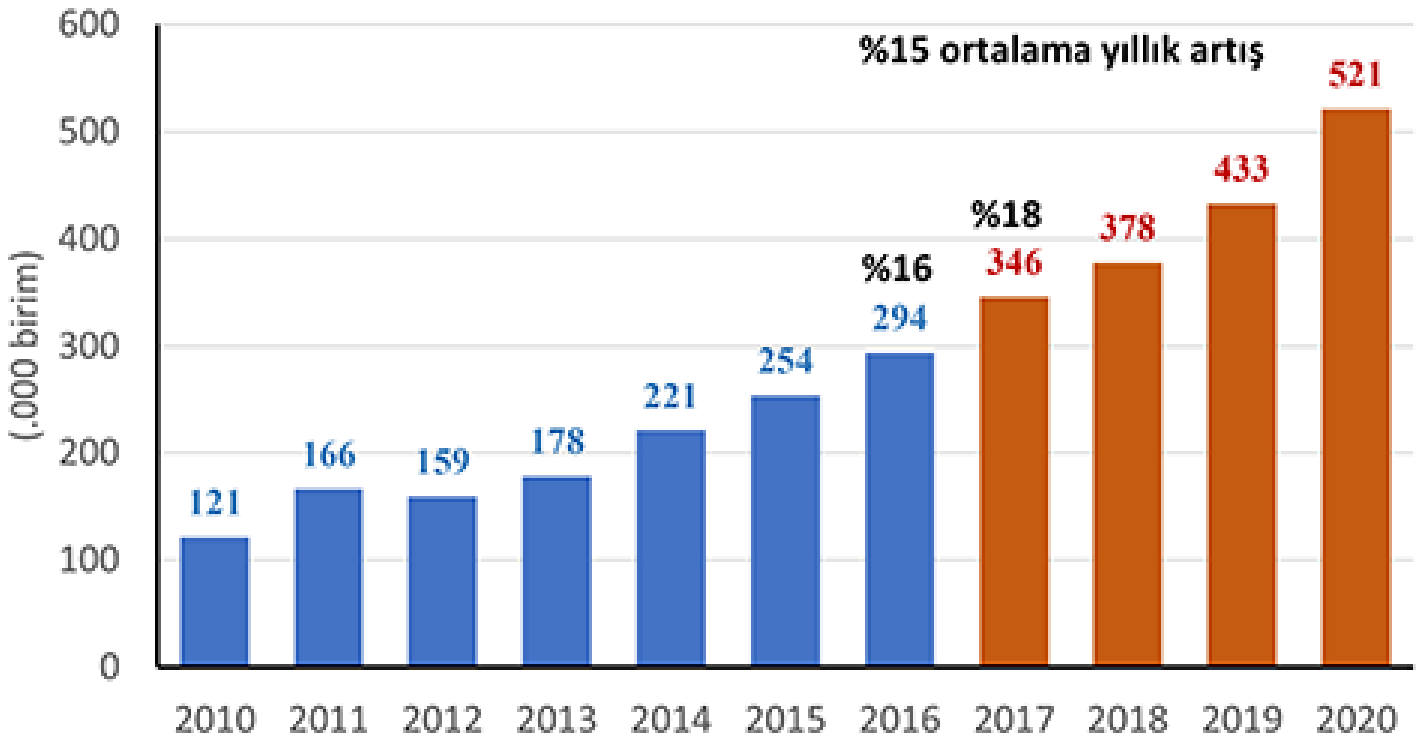
Sektörel Endüstriyel Robot Kullanımı

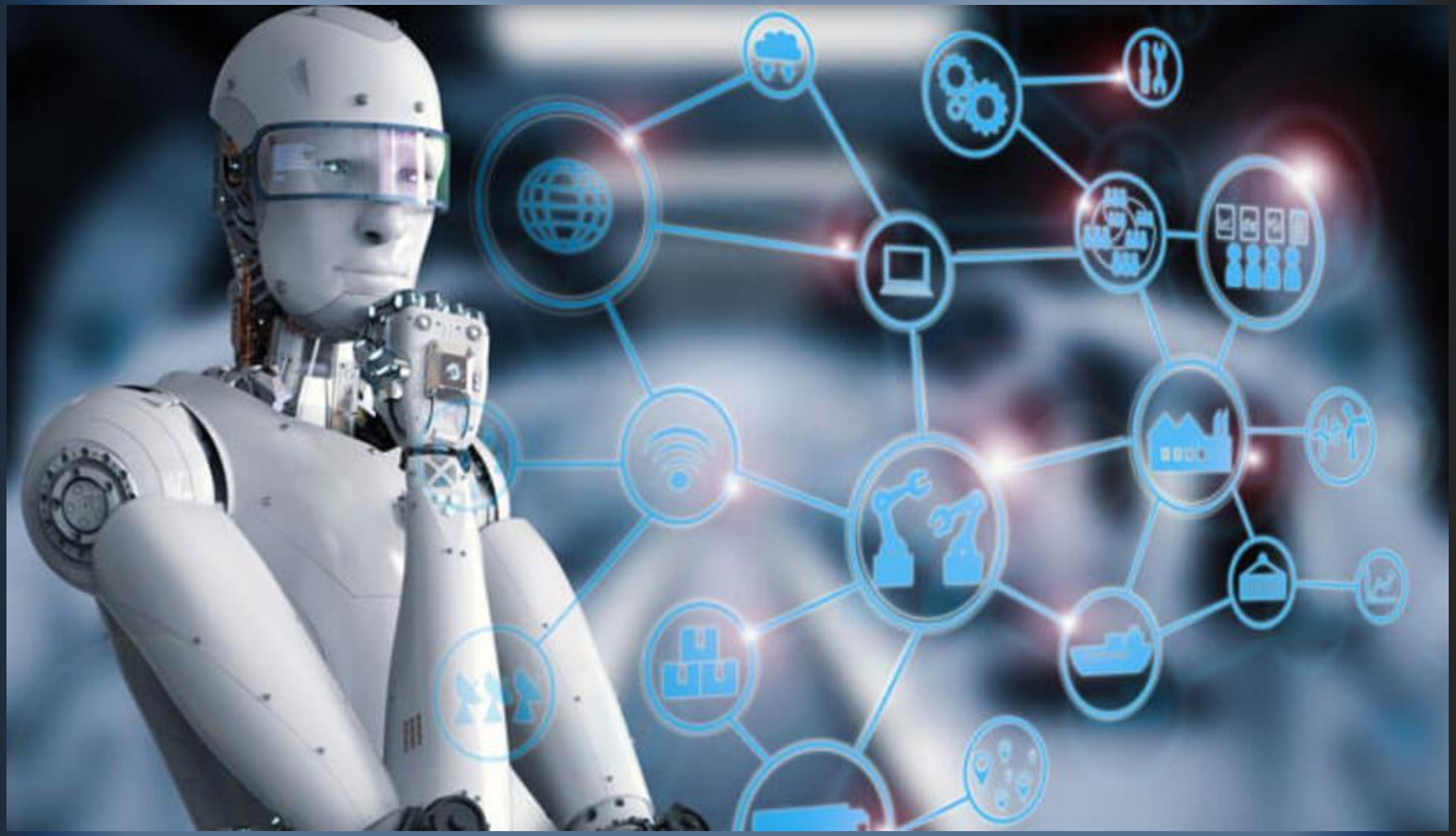


Global Endüstriyel Robot Kullanımı



Yıllara Göre Robot Artışı



Kaynak: IFR World Robotics 2017

İLGİYLE DİNLEDİĞİNİZ İÇİN TEŞEKKÜRLER