TeamRobotics

OUR ROBOTS
TEAM UP WITH YOU

DeepTech | Robotics | B2B|SMEs

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‘ALL-IN-ONE’ COBOTIC SOLUIONS

Simple, Safe, Smart, and Sustainable

TechnoRobotics Ltd, Israel

February 21st, 2024

TechnoRobotics – Who We Are

TeamRobotics

Board

Marina Fliamer
Founder & CEO

Over two decades of senior management experience in nuclear energy and mining, mentor in strategic planning and corporate innovations. MS in Industrial Automation and PhD in Economics

Artem Lukin
Co-founder

Entrepreneur and inventor with several patents in robotics over 15 years in metalworks and automation. MS in Engineering

Advisory Board

Tomer Raz
Advisory Board

Senior Applications Manager at HP Indigo, mentor, and lecturer with over 20 years of experience in IT
BSc in Industry and Management

Eli Sarel
Advisory Board

Founder and CEO of Smart Sense, lecturer and solutions architect in Industry 4.0 with an impressive 40-year track record.
MSc in QA & system analysis

Consultants

Boaz Freidin
Business Development

Over 25 years of expertise in system design, focusing on robotics, automation, and digitalization.
Dipl. in Control Engineering

Said Zahrai
Robotics

Over 30 years in both startups and international corporations such as ABB, where he served as global R&D manager and head of innovation for ABB Robotics
MS in Engineering Physics, PhD, Docent in Fluid Mechanics

Management Team

Mikhail Fliamer
CTO

20 years of experience in technological consulting and management.
MS in Physics and Engineering

Marina Andreev
Project Manager

Project Manager, Export/Import
15 years of experi-ence in operations and logistics.
MS in Intercultural Communication

Seasoned founders, experienced advisors, innovative engineers, and knowledgeable marketing experts, guaranteeing your success in automating your operation – wherever you are.

QUALITY INNOVATION AWARD

The renowned Quality Innovation Award for 2023 in the Business Innovations category was bestowed upon our TeamRobotics® line, which is designed to meet the distinctive needs of SMEs.

NVIDIA

As part of NVIDIA ecosystem (Inception Program), we focus on engaging end-users into collaborative problem solving.

AUBO

We cooperate with the second largest cobot producer as private label

TechnoRobotics – What We Do

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From Manual to Automated in Three Days

The trademarked **TeamRobotic®** 'ALL-IN-ONE' solutions wrap products and services for collaborative manufacturing, built to strengthen SMEs' position in the future digitalized world.

TechnoRobotics – What We Offer

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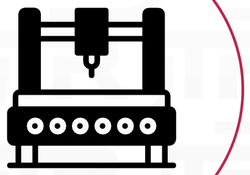

Machine Tending

TeamRobotics® solution for tending could serve two CNC machines simultaneously.

Palletizing

TeamRobotics® solution for palletizing can manage multiple conveyors (up to four) simultaneously and adapt to the customer's existing setup. It is also capable of sorting two different products onto separate pallets, while ensuring the labels are always visible.

Arc Welding

TeamRobotics® solution for welding allows for the installation of up to three welding stations, each potentially working on different parts or stages of the process.

TechnoRobotics – What You Get

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Simple:

Pre-assembled, ready-to-install, easy-to-retrofit, and versatile systems.

Safe:

Inherently safe robot, equipped with light and vision scanners.

Smart:

AI-driven AR-enhanced technologies – need little or no programming skills.

Sustainable:

Elevated workforce diversity and job satisfaction through safer, higher-skilled employment. Lowering defects and energy use.

TechnoRobotics – When You Are Paid Off

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-45%
The cost of production

-10%
Number of defects

+30%
Production efficiency

x3
Labor efficiency

TeamRobotics® 'All in One' Solution Efficiency Calculator

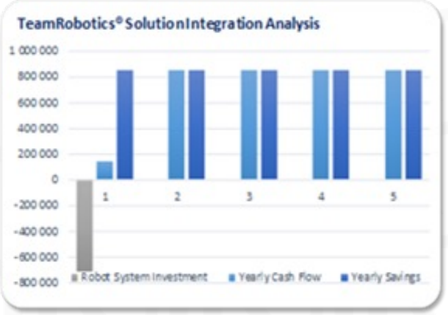
Figures in USD or ILS (grey cells for your filling)

Operational Parameters	Baseline	Robotic system	Currency
Employee Monthly Salary and Benefits [₪]	9 000	12 000	₪
Production per hour [Unit]	12	14,4	
Performance increase for the robot		1,2	
Average yield per month [Unit]	3 790	7 258	
Scrap Part level [%]	6%	0%	
Employees on a Shift [Unit]	4	2	
Hours per Shift [Unit]	8	8	
Shifts per day [Unit]	2	3	
Scrap Part Cost per Unit	5	5	₪
Holiday with pay [days]	18	36	
Include weekends and holidays	no	no	
Employee Yearly Salary and Benefits	963 517	1 025 018	₪
Idle time cost	500		₪
Maintenance Cost per year		100	₪
Scrap Part Cost per year	14 515	0	₪
working clothes per year	1 000		₪
utilities			₪
Yearly Cost	**979 532**	**1 025 118**	₪

Increase of production efficiency	91,5%
Increase of labor efficiency	155%
Choose currency of calculation	ILS
Currency Rate USD/ILS	3,67

Investment	Units	Price	Currency
Cobot	2	25 000	$
Cobot to Machine Interface and control program	2	18 000	$
Gripper	2	9 000	$
Loading table	2	24 000	$
Installation&Training	1	26 000	$
Support&Monitoring	1	16 000	$
total Investment		**194 000**	**$**

Baseline Cost per Unit	21,54
Robotic System Cost per Unit (5 years)	13,41
Return on Investment (5 years)	597%
Payback Period [Months]	10



With TeamRobotics® advancements, you will be able to reduce labor costs, improve safety, and boosts productivity.

What is Our Technology in a Smart Factory

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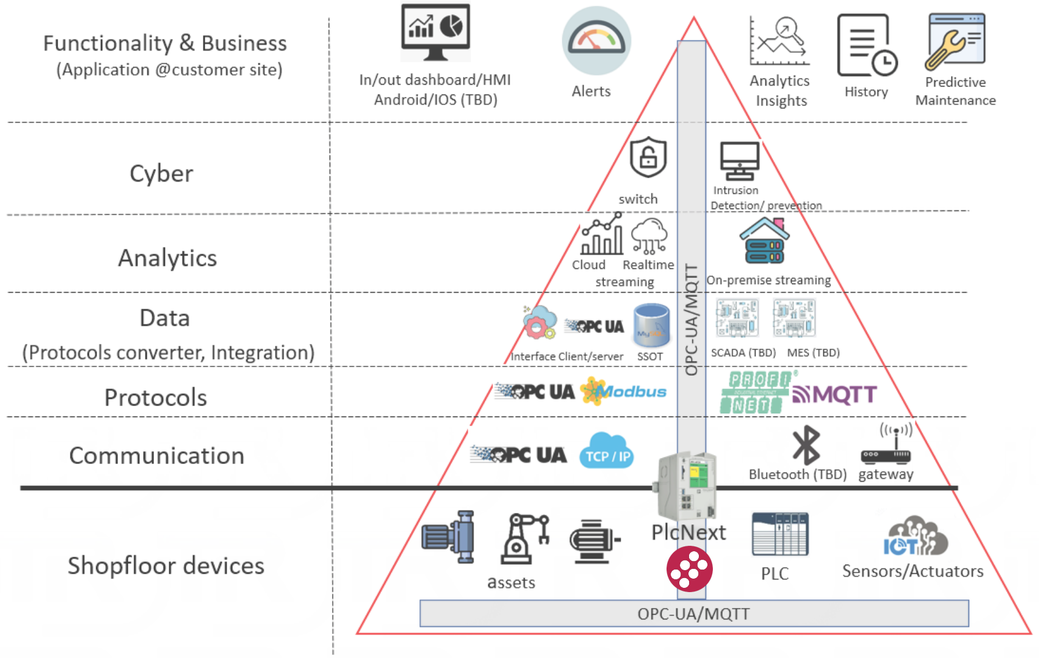
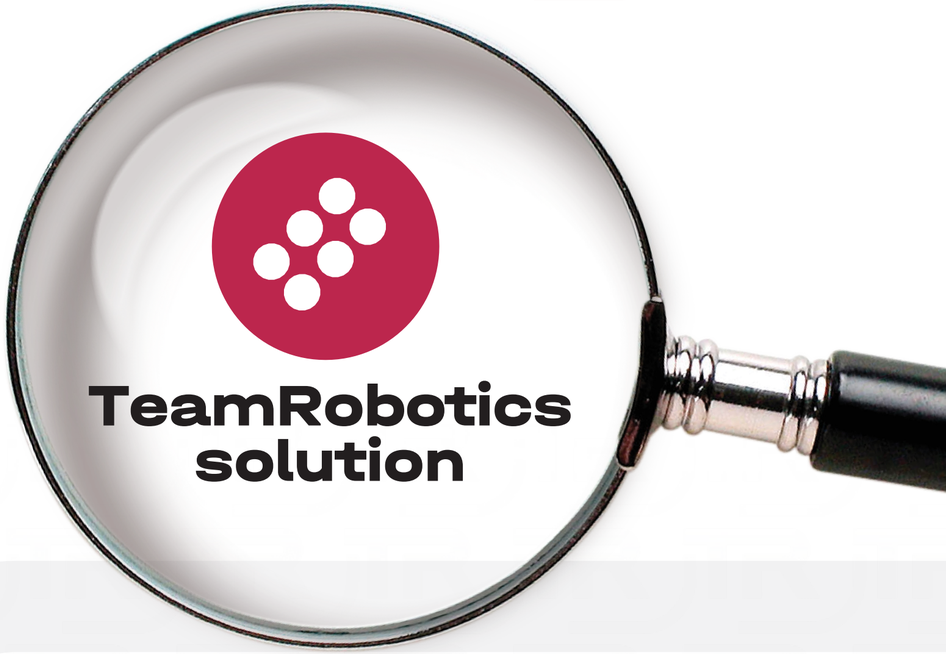


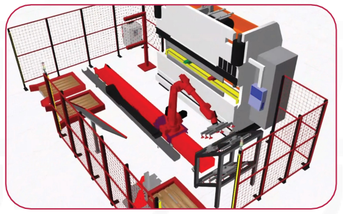
TeamRobotics 4.0

Industry 4.0 connected TeamRobotics system

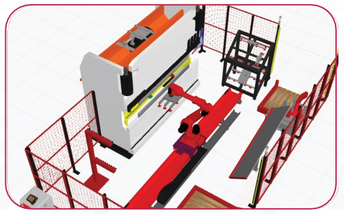
6 layers architecture



Shopflor Cobot-based technical system



Handling with Smart Grasping



AI-driven Accurate Bending

Removal and Organization of Parts Using Computer Vision

Sensors/Actuators

PLC next

OPC-UA SERVER
Cybersecurity
NodeRed

TechnoRobotics – How to Launch a Pilot with Us in Three Steps

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1. Assess

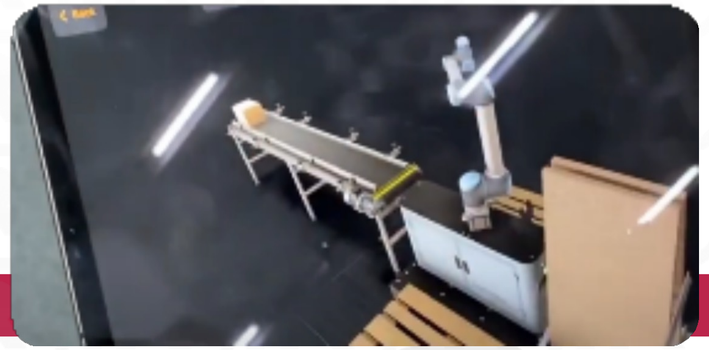
- Onsite visit & define the processes and requirements.
- Express feasibility study.
- Objectives and anticipated results for the desired scenario.
- ROI & Performance Indicator calculation.

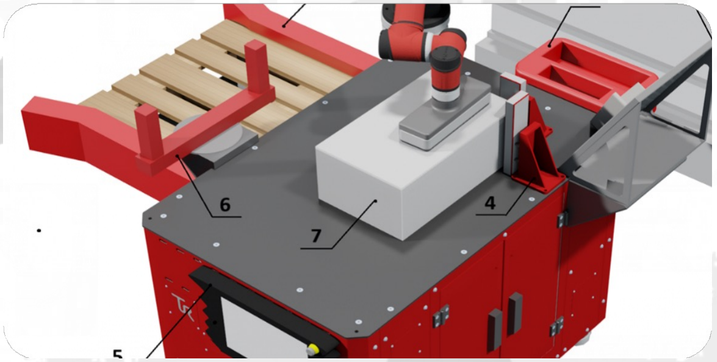
2. Implement

- Development of a pilot project tailored to your needs
- Education and training your staff.
- Delivering and installation.
- Trial run. Verification of operational readiness.

3. Evaluate

- Performance monitoring.
- Final evaluation.





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AI-Driven, AR-Enhanced: Simplify Implementation, Reduce Costs

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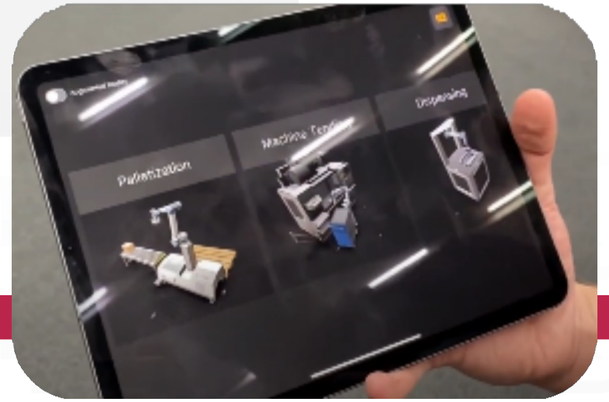
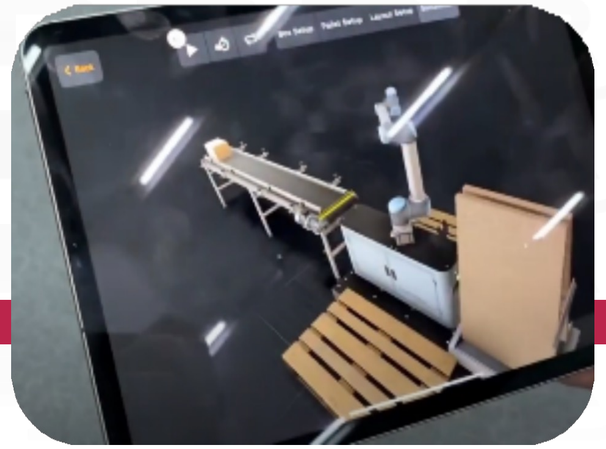
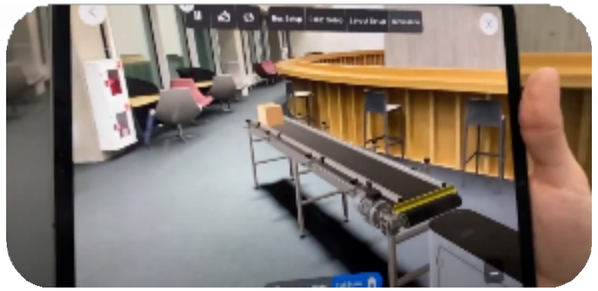
TechnoRobotics – Use Case – Palletizing

- Up to four conveyors
- Adapting to existing setup. It is also capable of sorting & pal- letizing two different products & pallets.
- Setting orientation.
- Compact footprint.







Watch the video at YouTube

AI-driven, AR-enhanced Palletizing:

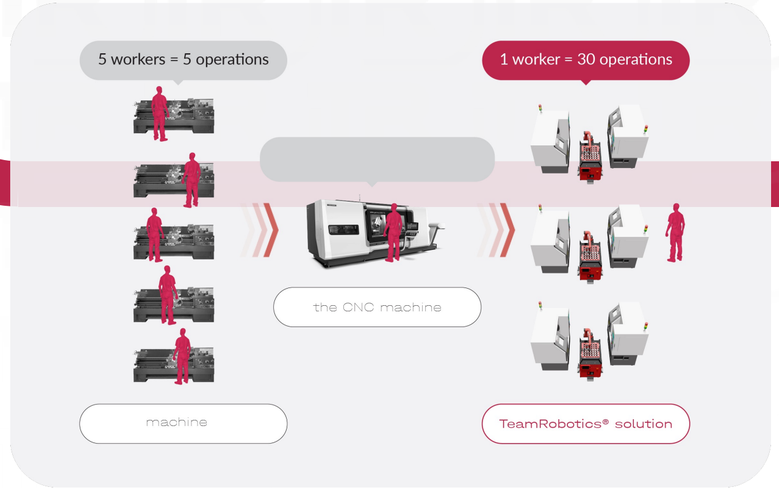
1. Enter parameters (box weight, dimensions, conveyor capacity, etc.)
2. Scan your shop floor layout
3. Get the most efficient palletizing scheme (AI-driven)
4. Simulate the process and see the visualization (AR-enhanced)
5. Push the button to implement the model at your shop (Full digitalization).

TechnoRobotics – Use Case – Machine Tending

- Up to two CNC machines to tend by one cobot.
- Up to six CNC machines to oversee by one operator.

From the perspective of the worker:

‘Initially, we were apprehensive that robots would replace us. But now, I've adjusted very well. My work has become safer and more interesting. Before, I had just one minute for each loading cycle and was literally tied to the CNC machine. Now, I team up with a robot, which lets me focus more on quality control.’

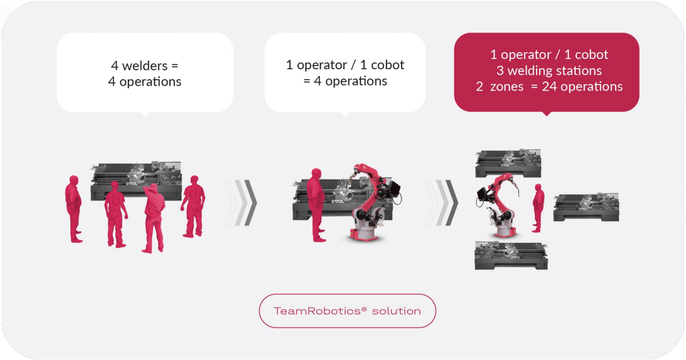


From the perspective of the business owner:

‘Even though a human worker might service the CNC machines faster in the short-term, over the course of a shift, a cobot can handle a larger volume of monotonous tasks more quickly and accurately. This frees us up to focus more on quality. Every sixth produced part is placed by the cobot on a table with a control measuring device. The human operator then takes the necessary measurements and makes any required changes to the fixture and tool on the CNC machine.’

TechnoRobotics – Use Case – Welding

- Safer, more inclusive, less physically demanding, and healthier working environment.
- Up to three welding stations, each potentially working on different parts or stages of the process.
- Compatible with various types of welding, including laser welding.
- Optimal operation.
- Improved quality.
- Up to 6% reduction of raw material usage.

From the perspective of the business owner:

'The automated welding is of much higher quality than manual weld- ing. Our customers are more than happy. '