T-robotics

Providing skilled labor to the world with robotics and physical AI

The problem with Robots

Fail Often

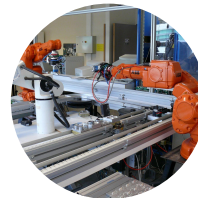**Difficult to Program**

No Awareness of Task

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Machining Case: Verksted Partner

Invested in a robot for 100,000 USD

Total ROI from robot 108,000 USD

Cost of robot engineers $140,000/year

Stopped using the robot as it too difficult to program for their machinists

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The root cause of problem is mathematics

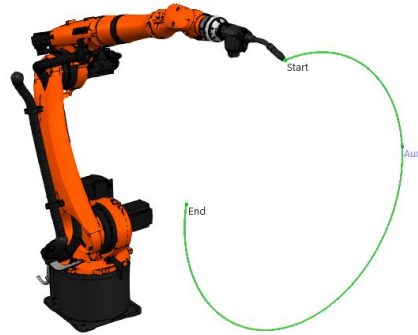**1960 - Today**

Point-to-Point Programming (PTP)

Very time consuming

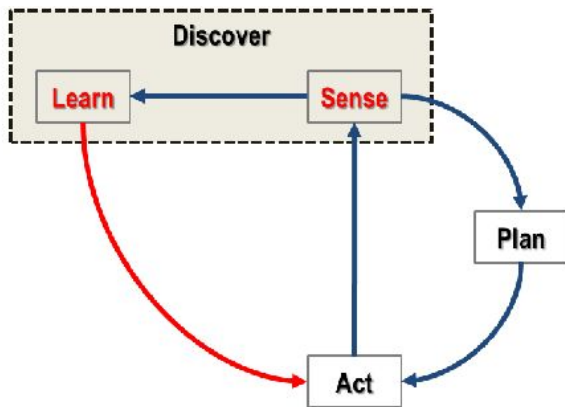No Intelligence - Fails often

Accurate and fast

Our Innovation

2010 - Today

Constraint-Based Programming (CBP)

Very difficult theory

Accurate/ fast in known situations

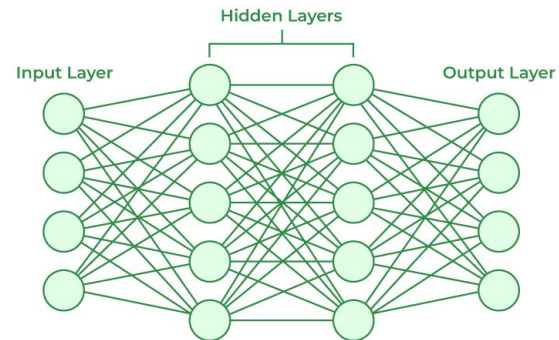Intelligence in **known** situation

2021 - Today

End-to-End Neural Networks (NN)

Requires immense data collection

Very low accuracy and very slow

Intelligence in **unknown** situation

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The team - 7 PhD Engineers - 11 Total

Asad Tirmizi, Ph.D.
CEO

Robotics Scientist. ByteDance, Vicarious (now Google). Best PhD Award in Robotics 2016 Italy. Next Gen. Innovator award (EU).

Lars Tingelstad, Ph.D.
CTO

x-Professor of Robotics (NTNU) Norway's premium technical university. Supervised PhD's & Grad students. Lead of largest robotics lab in Norway.

Alejandro Astudillo, Ph.D.
VP Software

Research and robotics SW lead with 8+ years of experience developing SW for rapid deployment of efficient automated solutions using robots. Colombian "Young Researcher and Innovator", ASME Rising Star Award.

Mathias Arbo, Ph.D.
COO

Robotics Scientist. PhD Robot Behaviors and Learning. Tech Lead Robotics SINTEF. Postdoc, and PhD degree from Department of Engineering Cybernetics at NTNU

Sonny Samson-akpan, M.Sc.
Business Dev. Executive

Business developer. 9+ years of experience in business project management and sales process optimization.

Vahid Mokhtari, Ph. D.
Robot Planning

Robot Planning Scientist. Inventor of the SAFE planner. A leading authority on robot planning and decision making logic

Ajay Sathya, Ph.D.
Robot Skills

Roboticist and Inventor of Tasho. A groundbreaking robot control library. 8 years of experience in robot skills creation

Jason Frasier
Robot User Experience

x-Principal Product Designer LinkedIn. Designer of the LinkedIn Sales Navigator

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Product

Robot agent software equipped with physical AI skills

Skill models trained for specific industrial tasks
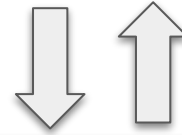

Natural Language

Robot Agent

Constraint Based Skills

Trained Neural Network Skills

Robot Action

Technology - Robot agent software that helps program

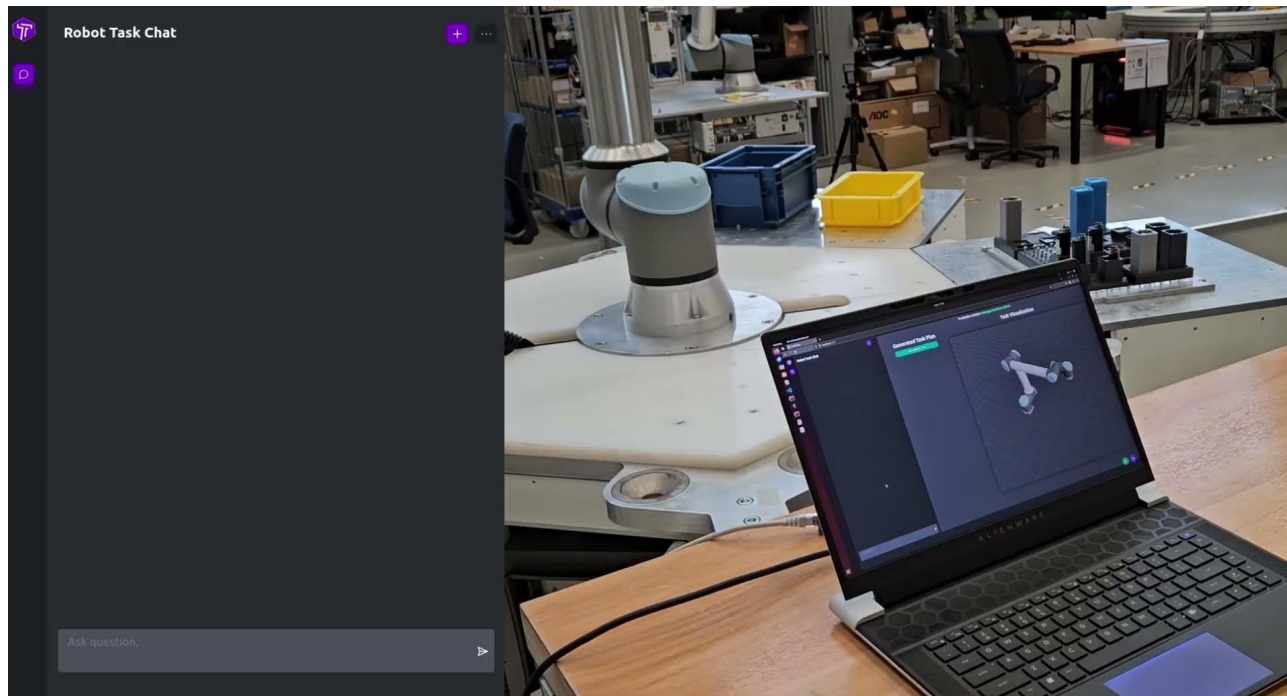The agent knows the task **better than any human** and continuously improves

Provides **guided Programming** in simple language

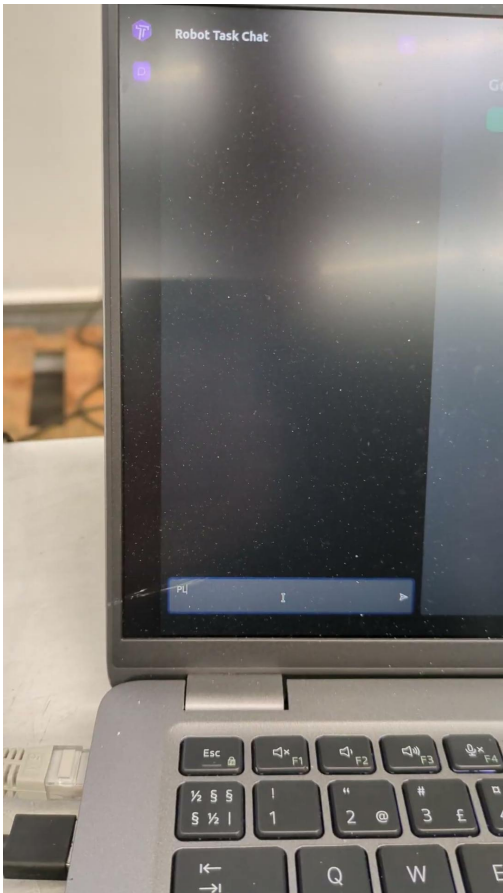Trained on **Vision, Haptics, and Language** of the task encoded in a proprietary foundation model

T-robotics

Technology - Trained skills that shift between machine and human behavior

Constraint-based optimal control provides machine like performance in known situations

Neural networks provides human intelligence in unknown situations

Traction

7 Committed Deployments $1.17 Million

21 in Pipeline $6.2 Million

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Machining Case: Verksted Partner

T-robotics actGPT estimated saves **$98,000 USD**

Story across machine shops in US & EU

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Thank you