realtime
ROBOTICS

# // AUTOMATING AUTOMATION

We empower companies with smart automation to
reduce cost and increase productivity

# REALTIME ROBOTICS AT A GLANCE

## Company Overview

- Founded 2017, based in Boston
- 60 employees worldwide, 47 are engineering
- $31M raised to date
- Asset light business model with no own manufacturing
- Industry disruptor empowering manufacturers to automate quickly with fast ROI
- Flexible RaaS model expected to accelerate robot adoption
- 17 unique invention disclosures, 3 awarded patents, 28 national applications pending, 2 PCT applications pending
- Huge global TAM of $173 Billion

## Team


CEO & PRESIDENT


CCO


CFO


VP Engineering


VP Systems


Dir. Product

## Strategic Partners

DEMATIC | FANUC | Kawasaki
MITSUBISHI ELECTRIC | SIEMENS | YASKAWA

## Strategic Investors

HYUNDAI | MITSUBISHI ELECTRIC | OMRON
SAIC | TOYOTA AI VENTURES

// PROBLEM

Manufacturers cannot fulfill orders due to constantly combating:

- Labor shortages
- Challenging consumer demands

# Automation should be the answer...
# BUT Automation today is:

## Rigid

- Software requires manually entering each robot path and every movement within mm to avoid collisions
- **Must choose between slow or unsafe**

## Inflexible

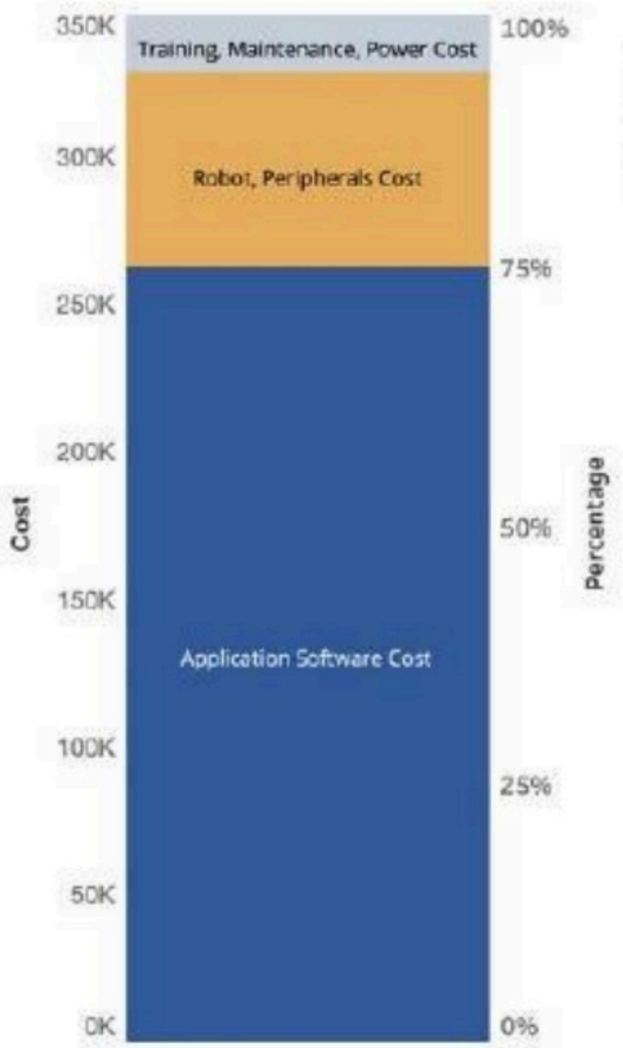
- Any changes require manually reprogramming the decision tree for the entire path for every robot

## Complex

- Each robot brand has its own programming language and requires highly-skilled specialists

## Expensive

- Average robot lifetime cost is $350K, which **programming costs can account for 50%**



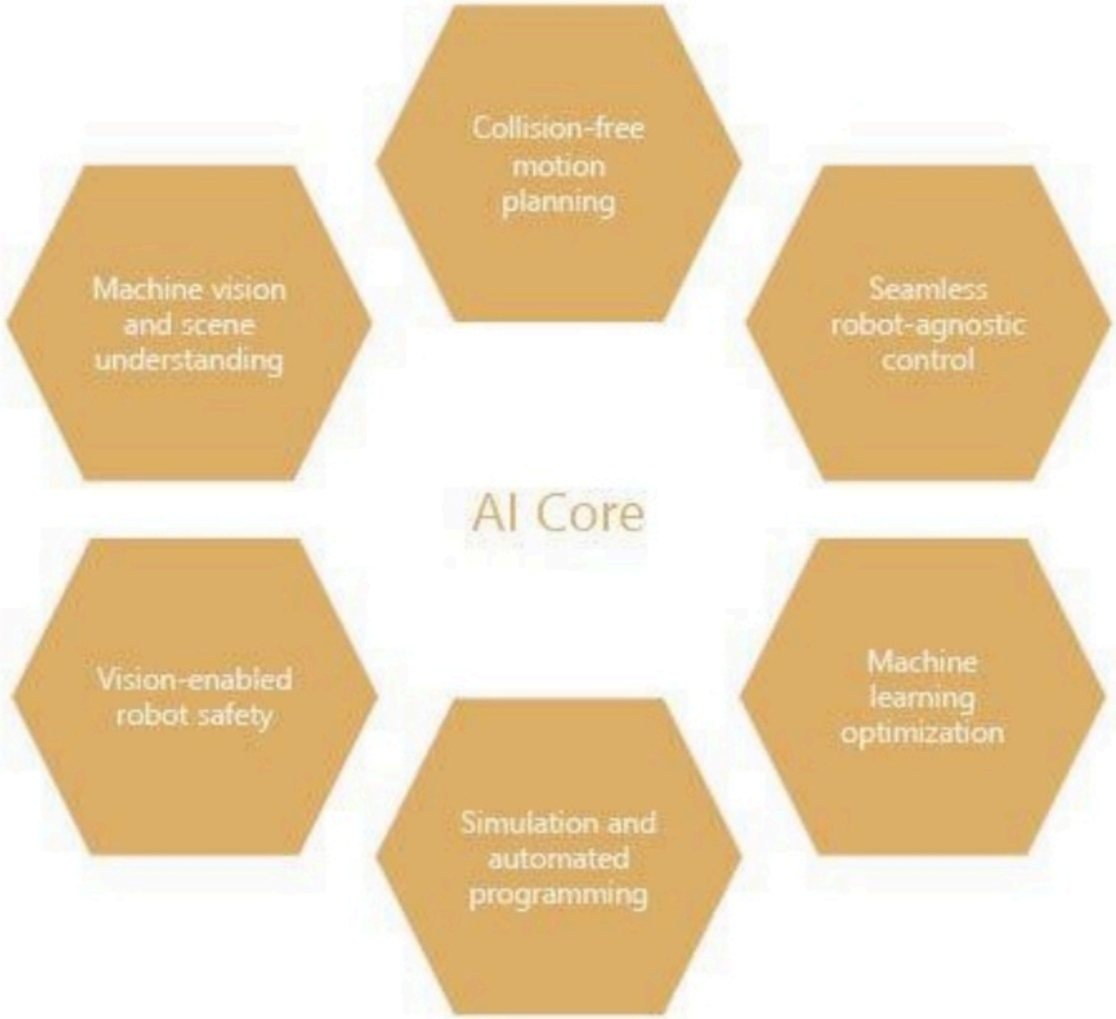

Average Robot Lifetime Cost
$350,000

Source: International Federation of Robotics, Siemens Next47 Start-up Insights

## // REALTIME'S SOLUTION

- Reduces programming time
- Reduces re-deployment time
- Increases flexibility and adaptability
- **Reduces automation costs by 40%**
- Allows multiple robots to work in shared space without collisions
- Will soon enable industrial robots to work at high-speed safely without guards and fencing

# AI DRIVES THE BREAKTHROUGH IN ROBOTIC AUTOMATION




## Deployment ROI

**Deploy in hours vs weeks**

- Software that automates programming
- New and existing automation integration
- Plug and play with all major robot brands
- AI & ML core generates optimized solutions

## Performance Benefits

**Improved performance on day 1**

- Change specs on-the-fly with a few clicks
- Robots react autonomously in real-time to unexpected deviations or interruptions
- Continuous uptime from collision-free movements

Scalable, adaptable, reliable AI-driven robot programming platform enabling tasks to be automated quickly and affordably

## Realtime Controller

**Specialized Hardware**
Automates motion plans and removes the need for brand-specific robot programming

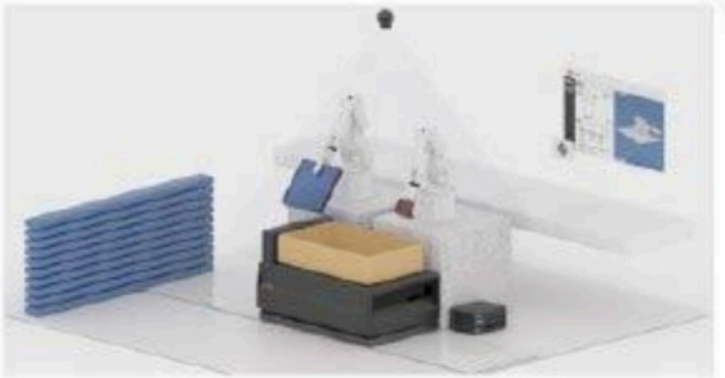
**Industrial Rate**
Hardened edge-computing platform maximizes uptime and throughput for up to 16 robots

## RapidPlan

**AI Core**
Optimally choreographs all robots' movements

**User-Centric Software**
Change cell specs on-the-fly with only a few clicks

**Optimize – Simulate – Deploy**



## RapidSense

**Spatial Perception**
Live path monitoring with obstacle detection

**3D Machine Vision**
Detection and reaction to process and control anomalies as they occur

# REALTIME BOOSTS COLLABORATIVE AUTOMATION

## Conventional Robots

**Fences or Light Curtains**

- Robots must stop when a human is inside the fence
- Costly to implement and inflexible due to large physical footprint
- Not suitable for collaborative applications

## Today's Cobots

**Power and Force Limited**

- Robots stop on human contact
- Must move at slow speeds
- Limited to small payloads
- Not suitable for industrial applications

## Realtime Collaborative

**Speed and Separation**

- No human contact/collisions
- Robots plan around humans instead of stopping
- Uses both 2D and 3D sensors
- Use industrial robots in collaborative applications

# $173 BILLION TAM BY 2025

## Logistics

**$56B**[1]

- Automated material handling

## Automotive

**$20B**[2]

- Multi-robot factory floor

## Digital Simulation

**$12B**[3]

- Digital twin software programming

## Safe Collaboration

**$85B**[2]

- Safe unstructured robotics

[1]McKinsey, Improving warehouse operations – digitally, 02/06/20; F. Curtis Barry & Company, Managing Your Warehouse Labor to Reduce Overall Expenses; Mordor Intelligence, Automated Material Handling (AMH) Market - Growth, Trends, COVID-19 Impact, and Forecasts (2021 - 2026), 2020; LogisticsIQ, Warehouse Automation: Rise of Warehouse Robotics, 2019. DHL, Robotics in Logistics, March 2016.
[2]IFR Report 2019
[3]McKinsey 2019 and WRR 2020

# FOUR FOCUS VERTICALS

| | LOGISTICS | AUTOMOTIVE | DIGITAL SIMULATION | SAFE COLLABORATION |
|---|---|---|---|---|
| **ANCHOR APPLICATION** | Mixed-case palletizing<br>Parcel Sortation | Multi-robot welding, paint and assembly | Offline programming digital twin & optimization | Collaborative Industrial robots |
| **BENEFITS** | Faster, more accurate automation | Reduce complexity<br>Quicker line changes | Vastly reduce programming time and cost | Power of industrial robots with people in the loop |
| **ANCHOR PARTNERS** | YASKAWA | SIEMENS | SIEMENS | MITSUBISHI ELECTRIC |
| **RTR TECHNOLOGY** | Realtime Controller<br>RapidPlan<br>RapidSense | Realtime Controller<br>RapidPlan | Virtual Realtime Controller<br>RapidPlan<br>RapidPlan Optimize | Safety Certified Controller<br>RapidPlan |

## Testimonial

"The combination of Process Simulate with Realtime Robotics' automated motion planning and interlocking has provided a significant improvement to our efficiency, reducing our off-line programming efforts by more than 80%. This presents to us a tangible and strategic advantage in the industry."

Michael Schaubmayr
Group Manager,
Mechanical Engineering Simulation

VALIANT TMS

## Testimonial

"At Ford, we want to drive the future of manufacturing excellence. Realtime's unparalleled solution enables adaptability and efficiency in our processes, and we are excited to push the boundaries of what is possible together."

Gregory Linkowski
Robotics Research Engineer,
Robotics & Mobility Research

Ford

## Testimonial

"Our partnership with Realtime Robotics reflects a paradigm shift in the way robotic applications are programmed and deployed. Together we have created a unique value proposition that will open up a world of possibilities for robotic automation."

Zvi Feuer
Sr. VP, Manufacturing Engineering Software

SIEMENS

VALIANT TMS

## // CUSTOMER CASE STUDY

| Product | RapidPlan Simulate |
|---|---|
| **Application** | **Multi-Robot Chassis Welding** |
| **Benefits** | + Automated and collision-free motion planning and interlocking<br>+ Ability to handle higher level of complexity with reduced effort<br>+ Failure recovery demonstrated |
| **Conventional** | 33-hours planning / engineering time |
| **Realtime** | 82% reduction in engineering time |
| **Partnerships** | Siemens |

# Browse the best pitch deck examples.

Brought to you by bestpitchdeck.com — the world's largest library of pitch decks: hundreds of winning presentations from leading startups, updated every week.

Read more →

Follow us @pitchdecks