

Realtime Robotics, Inc.



Boston, MA 2210

<http://rtr.ai/>

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SINCE ITS FOUNDING IN
2016

3 SBIR Awards

50 Employees

N/A Socioeconomic Category

4 Patent from SBIR/STTR



Solicitation:

Accelerated Low-power Motion Planning for Real-time Interactive Autonomy

DARPA SBIR Sponsor

SB172-009 Topic Number

Improved Performance, Adaptability Primary Innovation

Cost Savings Secondary Innovation

Accelerated Low-power Motion Planning for Real-time Interactive Autonomy

There is a need for real-time motion planning in autonomous systems to be adaptable in changing environments.

Realtime Robotics developed RapidPlan real-time robotic motion planning accelerator, which is comprised of computer hardware and software running on an industrial PC enabling robots to detect collisions and re-plan their motions to avoid them while continuing on to their goal position at rates up to 1 kHz. This allows robots to operate in unstructured spaces around humans and machines safely. This system also greatly reduces programming costs, which comprise 75% of lifecycle costs of ownership.

IMPACT

RapidPlan allows robots to adapt to changes in the environment, work cooperatively with other robots and avoid collisions. The technology helps expand efforts to automate and can enable more advanced applications, minimize harm to humans and increase factory output and productivity.

BEYOND PHASE II

Realtime Robotics commercialized its RapidPlan real-time robotic motion planning accelerator; purchased by approximately 50 companies for a total of 100 products with sales revenue of approximately \$8M. They have secured investments from, and partnerships, with a number of auto and robot OEMs. Since inception, they have licensed exclusive rights to four patents, and applied for 13 additional core patents covering the technology. There are a total of 100 early deployments at various major multinational firms in the US, Japan, and the EU, with others on the way. Moreover, Realtime Robotics has successfully garnered press interest culminating in two articles in IEEE Spectrum, and one article in the MIT Tech Review.