

# MIT DAAAM: Robots That Remember What They Saw, Where, and When

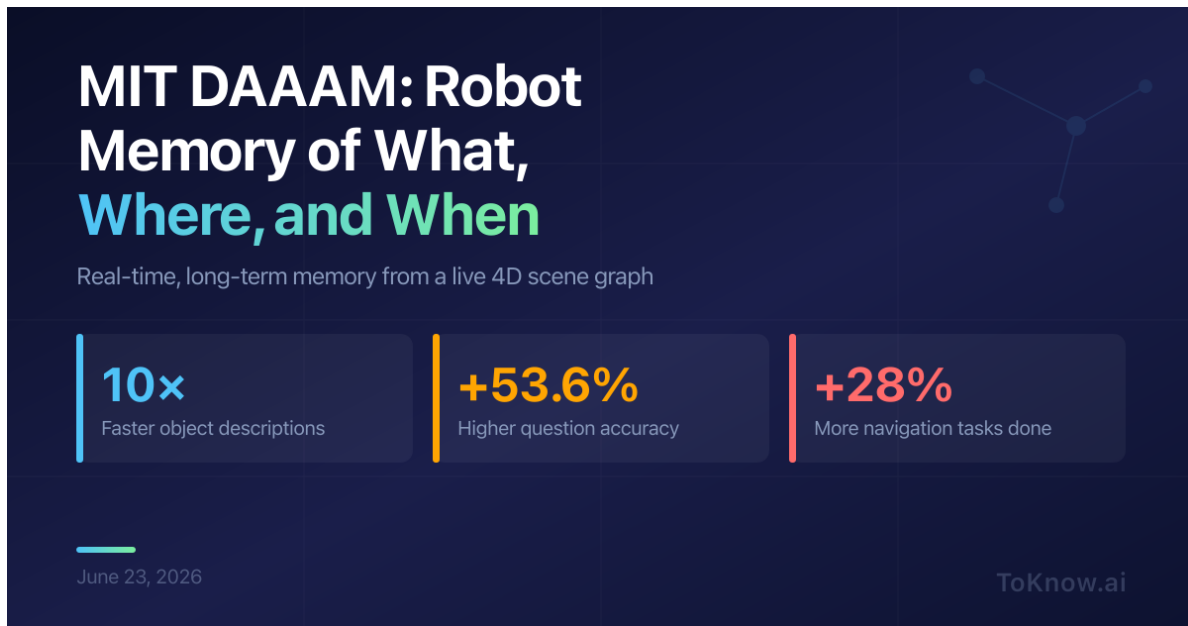
Kabui, Charles

2026-06-23

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**MIT DAAAM: Robot Memory of What, Where, and When**

Real-time, long-term memory from a live 4D scene graph

<b>10x</b> Faster object descriptions	<b>+53.6%</b> Higher question accuracy	<b>+28%</b> More navigation tasks done
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June 23, 2026

ToKnow.ai

Researchers at MIT's SPARK Lab released [DAAAM](#) (Describe Anything, Anywhere, at Any Moment), a system that gives robots a real-time, long-term memory of what they saw, where, and when. As a robot moves, DAAAM turns the feed from a depth-sensing camera, which captures color and distance, into a 4D scene graph: a constantly updated database where every object and place gets a written description, a 3D position, and a timestamp. The model

that writes those descriptions is slow, so DAAAM picks the clearest frames of each object and runs them through in batches on a separate thread. That speeds the step up roughly tenfold, making real-time operation possible while the robot tracks objects at the camera's full 10 frames per second.

A robot that forgets cannot handle long jobs. With DAAAM, a separate AI agent searches that memory in plain language, so a warehouse or hospital robot can answer “where did you last see the red tool?” or “how long has that door been open?” Against the best existing methods, DAAAM answered questions more accurately, raising accuracy on one benchmark by 53.6%, and completed step-by-step navigation tasks correctly about 28% more often. The code and data are open-source.

AI's text agents spent the year racing to build better memory. DAAAM moves that race into the physical world, where the limit is shifting from how well a robot reads a single frame to how well it remembers a place over time. It still trips on unusual objects and fast-moving drones.

Read More: [RynnBrain](#) is the other half of this push, one open model that lets a robot perceive, reason, and act.

Sources:

- [Describe Anything, Anywhere, at Any Moment \(project page\)](#)
- [DAAAM \(arXiv, November 29, 2025\)](#)
- [New AI Gives Robots Something Close To Memory In Real Time \(StudyFinds, June 18, 2026\)](#)
- [MIT-SPARK/DAAAM open-source code \(GitHub\)](#)

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