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00:00:00,140 --> 00:00:05,130

NASA is advancing new technology for robots to take care of spacecraft.

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00:00:05,130 --> 00:00:09,470

The project is called ISAAC,

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00:00:09,470 --> 00:00:14,430

which stands for Integrated System for Autonomous and Adaptive Caretaking.

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00:00:14,430 --> 00:00:19,300

The goal is to minimize human supervision

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00:00:19,300 --> 00:00:24,280

and have robots respond to critical problems when astronauts are away.

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00:00:24,280 --> 00:00:29,270

Researchers demonstrated how the tech works using Astrobee.

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00:00:29,270 --> 00:00:34,350

The flying robots aboard the International Space Station can operate autonomously.

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00:00:34,350 --> 00:00:39,010

They have special cameras and sensors for navigation

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00:00:39,010 --> 00:00:43,940

and can create 3D maps of their environment.

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00:00:43,940 --> 00:00:49,120

For the demo, an Astrobee named Bumble was alerted to a simulated danger

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00:00:49,120 --> 00:00:52,760

and sent to find the problem.

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00:00:52,760 --> 00:00:56,980

Bumble surveyed the spacecraft with its robot vision.

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00:00:56,980 --> 00:01:02,140

It found the issue,

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00:01:02,140 --> 00:01:06,870

a misplaced "sock" blocking an air vent.

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00:01:06,870 --> 00:01:11,390

The technology will allow for new kinds of human exploration missions in deep space,