Microsoft® ROBOTICS STUDIO

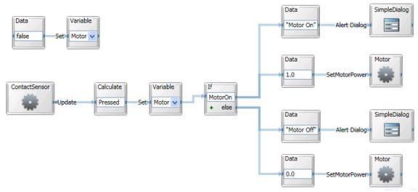
Microsoft® Robotics Studio makes it easier for hobbyist, academic and commercial developers to create robotic applications for a variety of hardware platforms. The Microsoft Robotics Studio software development kit includes a lightweight services-oriented runtime, a set of visual authoring and simulation tools, as well as tutorials and sample code to help you get started.

For more information see:

microsoft.com/robotics

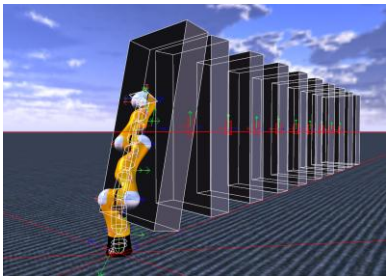
End-to-End Development Platform

- **Non-programmers can easily create robot applications using a visual programming environment.** The Microsoft Visual Programming Language (VPL) enables anyone to create and debug robotics programs. Drag and drop blocks that represent services.



VPL makes it easy to create robot applications

- **Simulate robotics applications in 3D physics-based virtual environments.** Simulate your robotics applications using realistic 3D simulated models, based on the AGEIA™ PhysX™ Technology from AGEIA Technologies Inc.



Microsoft Robotics Studio simulation tool enables testing applications in a realistic physics-based 3D virtual environment.

- **Interact with robots using Windows or Web-based interfaces.** Create applications that enable you monitor or control a robot remotely using a Web-browser and send it commands using existing Web technologies, such as HTML forms and JavaScript.

Lightweight services-oriented runtime

- **Makes asynchronous programming simple.** The Concurrency and Coordination Runtime (CCR), makes it easy to write programs to handle asynchronous input from multiple robotics sensors.
- **Real-time monitoring of robotic sensors and response to motors and actuators.** The Decentralized Software Services (DSS) application model enables you to access, and respond to a robot's state.

Scalable and extensible platform

- **Extend Microsoft Robotics Studio functionality.** Easily provide additional libraries and services.
- **Supports both remotely connected (PC-based) and robot-based (autonomous) application scenarios.** Communicate from a PC to the robot through a serial port, Bluetooth®, 802.11, or execute natively on robots running Microsoft Windows.
- **Supports a wide variety of programming languages.**

Microsoft® Robotics Studio, a new Windows®-based development environment for creating robotic software for a wide variety of hardware platforms, and is available for download at http://microsoft.com/robotics .

The Microsoft Robotics Studio environment is an end-to-end, scalable and extensible robotics development platform that includes the following:

- A visual programming language that enables nonprogrammers to easily program robots using a drag-and-drop environment
- A 3-D tool that simulates robotics applications in physics-based virtual environments, using the licensed PhysX™ engine from AGEIA™ Technologies Inc.
- A lightweight, services-oriented runtime that enables applications to communicate with a wide variety of hardware

For academics, hobbyists, and students, Microsoft Robotics Studio is available to license free of charge. Commercial robot developers interested in generating revenue from applications, services and robots based on Microsoft Robotics Studio can license the development platform starting at $399. Full licensing details are available at the Microsoft Robotics Studio Web site.

The Microsoft Robotics Group is pleased to partner with Microsoft Research to sponsor ICRA 2007. For more information on Microsoft Research http://research.microsoft.com