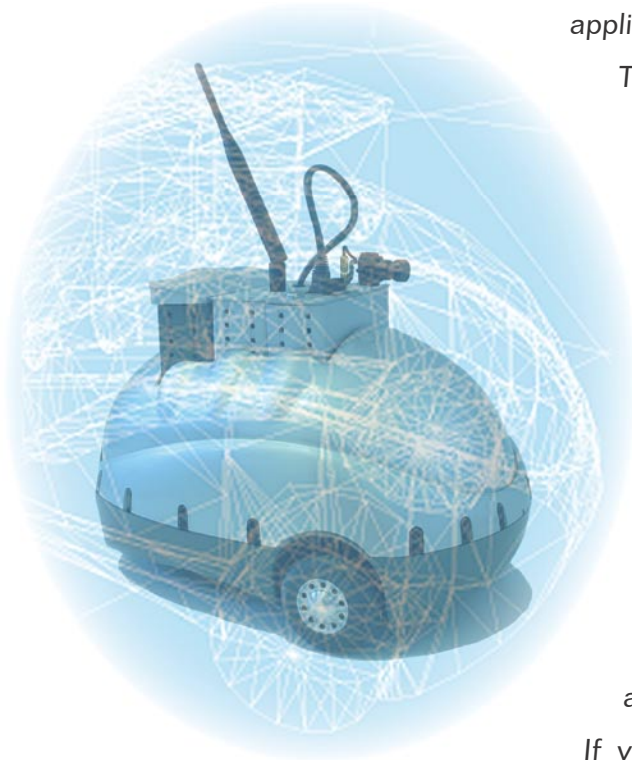


The first all-in-one mobile robot is ready to roll with your ideas!

Without a doubt, robotics is one of the most intriguing fields in the industry today. By combining computer science, mechanics, and electronics, robotic solutions can add unprecedented functionality to useful appliances and devices in our everyday lives.



The first mobile robot home cleaning appliances are already in stores, and kids everywhere have toys with robot technologies inside. Robotics-based solutions have taken a step out of science fiction movies and into our homes.

But before consumer applications can start to fill the shelves, we need to make sure that robotics professionals have the tools they need to bring their ideas to fruition.

That's why Wany Robotics invented Pekee™.

Pekee is an open robotic development platform that puts tomorrow's technologies in your hands today. It is a completely integrated, autonomous, and programmable mobile robot, loaded with the latest technologies and customizable software.

Now for the first time, you can explore electronics, robotics, and software programming all with a single product.

If you are an educator, researcher, or developer looking for a robotic platform that can help you express your own ideas for intelligent mobile applications and products, look no further, Pekee is ready to roll!

Pekee™ is perfect for

- Robotics professionals
- Education, research, and commercial applications
- Research and development
- Teaching robotics, electronics, and computer programming
- Classroom projects
- Proof-of-concept design
- Rapid prototyping
- Software innovation

Advantages of the Pekee™ platform

- Completely open system for developing and testing mobile robotics software applications
- Everything you need in a single package, *no assembly required*
- Pluggable embedded Windows® or Linux computer lets you add new applications to your robot easily
- Loaded with sensors for obstacle avoidance, navigation, motion detection, communication between robots, and more
- Includes Wany's Robotic Software Lab™ for Windows® so you can experiment with 100% compatible virtual robots
- 3-D simulator lets you build and run entire robots on your computer and use components from the Wany software library
- Compatible with Microsoft® Visual C++ and Matlab®

Pekee, an all-in-one mobile robot solution

Wany Robotics' Pekee™ robot is an open platform for robotics professionals, researchers, educators, and students in technology.

Pekee offers a complete solution for working with robotics from basic concepts to high-level application development in Wany's Robotic Software Lab™.

With Pekee you get fast access to all the latest in robotics, from algorithms for autonomous movement and obstacle avoidance, to embedded video, data streaming, signal analysis, and artificial intelligence. And that's just the beginning.

Pekee gives you the right combination of out-of-the-box functionality and total flexibility. Turn it on and watch it go. Drive it with your keyboard, see the video feed right on your computer screen, watch Pekee's obstacle avoidance and proximity detection software pilot your robot.

When it's time to write your own programs, you will appreciate the robot's many integrated features – everything from an embedded computer running Windows® or Linux, to infrared, temperature, and light sensors, odometers, a shock detector, and gyrometers, a Wi-Fi module, and even a color video camera.

Completely expandable hardware and software architecture

To meet the demands of our most creative customers, Pekee is designed around an open architecture that lets you plug in cartridges for different purposes, and even create your own.

Pekee comes standard with a wireless network-ready embedded computer and color video camera.



If that's not enough, you can design and plug-in your own cartridges using Wany's specially-designed prototyping boards. Pekee's motherboard uses Wany's patented Open Parallel Platform (OPP™) bus, which ensures efficient communication between plug-in cartridges.

A key part of any robot laboratory

Pekee also makes a great tool for teaching robotics and computer programming to students of all levels. With its modular architecture and powerful development kit, Pekee is ideal for applied technical projects covering widely varying fields such as:



- Robotic design and behavior control
- Software programming
- Artificial intelligence
- System architecture
- Motor control and navigation
- Data acquisition and processing
- Energy management

Pekee's versatility makes it a popular tool in research and university labs throughout the world. In a single product, Pekee has what it takes to make sure that you, your teams, and your students can work at the leading edge of tomorrow's robotic solutions today.

Feature overview

- Completely customizable mobile robot
- No assembly required
- Rugged plastic case with removable hood
- Embedded computer running Windows® or Linux
- Wi-Fi 802.11b and RJ45 Ethernet connections
- USB, keyboard, and mouse ports
- 2 differential drive DC motors with incremental encoders and integrated suspension
- Max. speed: 3 feet/second
- Mitsubishi M16C family micro-controller running Wany robot control software
- 15 infrared distance measurement sensors (also used for data communications)
- 2 gyrometers
- 2 temperature sensors
- 1 shock sensor
- 1 light sensor
- 1 serial port
- 4 x I²C connectors
- Buzzer
- 2 x 12 volt rechargeable batteries (NiMH)
- Integrated intelligent charger
- Wany Open Parallel Platform™ (OPP) bus
- Includes Wany Robotic Software Lab™ for Windows®

Write custom programs using Wany's Robotic Software Lab™

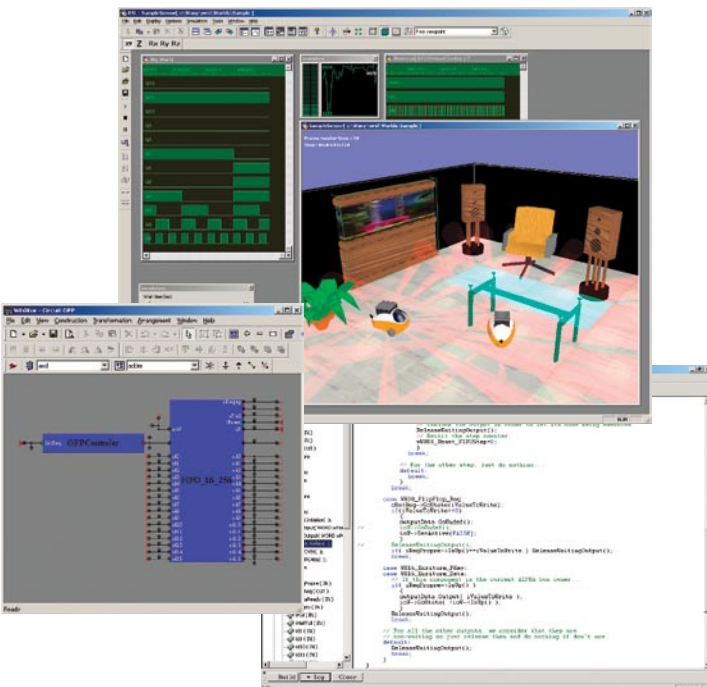
The Wany Robotic Software Lab is a comprehensive development environment for writing and testing robotic applications in Windows®.



Indispensable for all your professional and educational robotic development projects, the Robotic Software Lab offers a modular toolset, complete with:

- **Robot Editor** – Lets you build entire virtual experimental robots from scratch or using the Wany component library. You even get source code for all the Pekee components as a starting point for your new designs.
- **Physical Simulator** – A powerful, workgroup-ready tool for experimenting with robots and behaviors in customizable 3-D worlds. You can simulate speed, acceleration, positioning, and “bump and go” applications where robots encounter obstacles in their virtual environments, and more.

Use the Robotic Software Lab to experiment with a virtual version of your program or algorithm to your heart's content. Then when you are satisfied with results in the simulator, just upload your fully compatible application code to a Pekee. It's that simple.



Create your own plug-in cartridges for Pekee robots

After designing and testing your electronic inventions in the Robotic Software Lab, you can use Wany's prototyping boards (sold separately) to produce plug-in modules for your Pekee robot. These boards are perfect for mounting standard electronic components, including those used to add specialized processing ability or to create articulated limbs and other external accessories.



The boards draw power from the Pekee's OPP™ bus, and interface with other components in the robot easily, such as infrared and other sensors. Wany's prototyping boards are ideal for pursuing your own experimental programs.

IR8s™ infrared sensors and proximity detection toolkit

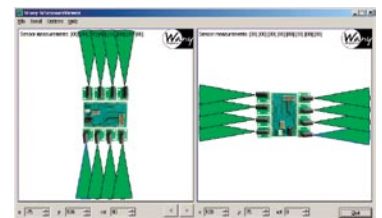
Pekee's autonomous navigation system uses a set of 15 integrated infrared proximity sensors based on patented Wany technologies.

These sunlight resistant sensors measure distance to objects on all sides of the robot simultaneously, feeding data to navigation-based applications such as dynamic mapping and obstacle avoidance software.



Wany's IR8s infrared toolkit (sold separately) puts these sensors at your disposal. With eight sensors, a micro-controller card, and viewer software for Windows, Wany's IR8s lets

you add a complete ready-to-use distance measurement system to your prototypes and embedded devices.



- Patented Wany infrared technology surpasses other available solutions
- Up to 10 measurements per second, with simultaneous reading on all sensors
- RS-232 connection, viewer, software, source code
- Software adjustable range and sensitivity (2 inches to 9 feet)

Product details and price list

Pekee™ Pack: Pekee™ robot & Robotic Software Lab™

Includes one Pekee robot, Robotic Software Lab (single user license), embedded PC cartridge with color video camera, Wi-Fi 802.11b cartridge, quick-charger, membership in the Wany Partner program, 1 year technical support.

Ref. PEKEPAK

Wany IR8s™

Infrared distance measurement toolkit. Includes Wany patented infrared technology, viewer software for PC, micro-controller card, SDK, source code, 8 sensors, connector, and cables. Communicates via standard serial port. Ranges from 2 in. to 9 feet. Resistant to sunlight and external heat. *Power supply required.*

Ref. IR8SP001

Wany Partner Program premium membership renewal

Extend your full-service Pekee support program by 1 year.

Ref. SUPPRSL1

Embedded PC cartridge with color video camera

Plug-in embedded PC cartridge (STPC), 75 MHz x86 microprocessor, 32 MB SDRAM, 128 MB compact flash; standard PC connectors – PS/2 (keyboard & mouse), Ethernet, 2 x USB (v 1.1), IDE, SVGA OPP bus interface, energy pack and power supply connector, 640 x 480 color video camera.

Ref. BOITVD01

Embedded PC cartridge (without camera)

Ref. BOITP014

Prototype Development Boards

Set of five OPP-compatible wrapping cards for creating custom cartridges. Includes OPP interface with standard address/data bus (16-bit read, write, chip select). Supports standard components and micro-controllers.

Ref. CARTP016

Pekee Expert Programming Kit

For reprogramming the Mitsubishi micro-controller on the Pekee motherboard. Includes programming card, serial cable, flash application, Mitsubishi M16 compiler (4 month evaluation), 1 year technical support.

Ref. CARTP015

Robotic Software Lab

Integrated development environment with everything you need to create and test electronic components, circuit boards, add-on modules for Pekee, and entire robots. Includes 3-D simulation tools. Compatible with Microsoft® Visual C++ and Matlab®.

Ref. SOFTRSL1

Multi-user licenses please contact us

Training please contact us



www.wanyrobotics.com

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Note: This is a non-contractual document. Product specifications subject to change without notice.
All Wany Robotics products are guaranteed for one year.