



Dream in White



The PC-BOT: An Open Architecture Research Platform



The PC-BOT delivers an affordable, open architecture robotics research and education platform to Universities and Colleges worldwide. This is the first, patented robot design to employ standard PC cages and backplanes, taking advantage of a mature COTS industry. With researchers deploying a standards-based platform, a common language of understanding and progress is developed with a common baseline for review and comparison. Reusable building

blocks emerge, thousands of off-the-shelf parts can be deployed, and known standards and interfaces exist to aid with custom board or accessory designs. And with a PC price point, labs can afford to buy multiple machines. Researchers don't have to time-share platforms and small teams or individuals can take on holistic projects. The PC-BOT is ideal to support faculty research, graduate work and undergraduate lab instruction and projects.



The PC-BOT hits a “sweet spot” in the research robotics market. Current robot offerings are either small, dumb, and cheap or big, reasonably smart and expensive. The PC-BOT is a medium sized platform that is very smart and very reasonably priced. It is a robust research platform that is so cost-effective, every researcher can have their own platform.

A New Learning Companion

UNIVERSITIES / COLLEGES / TECHNICAL SCHOOLS

- Teaches basic and advanced subjects in an intriguing and captivating format.
- Colleges and Universities can utilize the platform for robotics intro courses up to advanced research applications like AI, autonomous navigation, vision, perception, etc.
- Tech schools can use the 914 for all PC classes- PC troubleshooting, PC repair, PC networking. On a parallel path schools can offer instruction in mobile robotic technologies, robot troubleshooting and repair, preparing students for the next big tech wave of mobile robotics.

JR. / SR. HIGH SCHOOL

- Teaches intermediate science and PC subjects in a fun and captivating format.
- High school students are very tech savvy and eager to learn new technologies. The PC-BOT is an excellent segue into robotics because it's in a format they already use and understand.
- Generates enthusiasm and excitement for robotics... important because mobile robotics is the next big wave of technology on a global scale. We must get young people more involved now.
- Perfect for fuelling competitions: its low cost and open architecture create an affordable, comparable baseline for competitive development.

GRADE SCHOOL

- Teaches PC basics in a fun and captivating format.
- Helps children feel comfortable with hi-tech; they have an affinity for robots developed by the entertainment and toy industries.
- Fosters hands-on involvement with PCs and Robotics; helps develop initial interest in computer science and electronics at a crucial early age.
- Excellent interactive teaching aid... robots can help children learn 123s, ABCs, World Facts, etc.

A smart mobile robot is a New-Age Tutor... that doesn't cost \$100/hr. We should be able to afford one for every child or family.

Art? Science?

Mobile Robotics is widely recognized as a hands-on discipline that provides an ideal blend of theory, application and physical reality, fusing a number of subjects and providing different levels of creative output and real-world testing for each. The PC-BOT goes a step further by bringing personal computer technology into the fold. Some of the subjects enhanced and fused by the PC-BOT include:

- Electronics
- PC Hardware, Systems, Networking
- Computer Science
- Cognitive Science
- Industrial Design
- Computer-Aided Design
- Modern Art / Mobile Art



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