

**Greetings Roboticists,**

These days, robotics and intelligent systems are found everywhere – smart cars, smart houses, smart buildings, smart phones, healthcare technology, internet search engines, automated security systems, all phases of the shipping industry... intelligent systems are ubiquitous. Students, as future innovators, need to know to use them.

Robots elicit curiosity from people of all ages; there is something that fascinates people when they see a robot moving around making decisions on its own. This natural attraction can open up opportunities for inspiration and enlightenment in both conventional and unconventional ways. In fact, robotics may be the premier integrator in education today. When students study robotics, they learn about engineering, electronics, and programming. They gain equally valuable experience in managing projects, analyzing systems, accessing information, working in teams, and problem solving.

Carnegie Mellon and LEGO are working together to design research-based educational tools that promote mathematical and engineering competency, as well as technological and scientific literacy for all generations of students. The *Teaching ROBOTC for LEGO MINDSTORMS* training CD enables students to take their first step toward becoming competent programmers, engineers, and innovators.

In these lessons, students are given opportunities to design, build, program and troubleshoot tabletop robots. These projects require a diverse and well-rounded skillset, from measurement to analysis, calculation to communication, individual initiative to group collaboration. Engineering is a complex and multi-faceted discipline, one which reflects the challenges and demands that tomorrow will make of its citizens.

Today, we are finding that more high schools and colleges are using MINDSTORMS and other robots to introduce engineering competencies and control concepts. Programming is an elusive key skill that unlocks the potential of all these intelligent systems for students and educators. Teaching programming builds a foundation for the future. *Teaching ROBOTC for LEGO MINDSTORMS* is a tool that we hope will help you do that.

Best regards,



Robin Shoop,  
Director of Educational Outreach  
Carnegie Mellon Robotics Academy

**Carnegie Mellon.**