



STUDENT ROBOTICS



DESIGN

BUILD

COMPETE

2007 - 2008

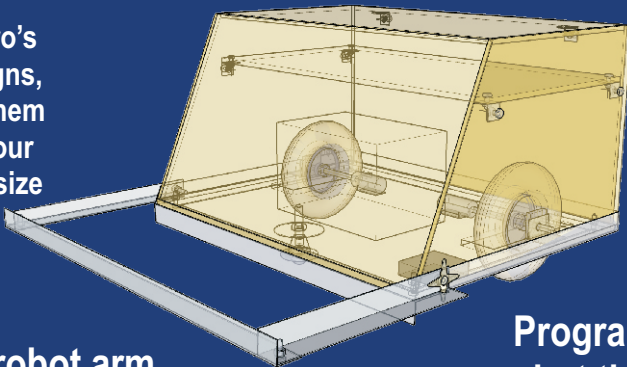


Work as part of a student team

With the help and guidance of a University of Southampton engineering mentor, you will work together in a team of six students over six months. You will have to manage your time, allocate your budget and make sure you're ready for an incredible competition!

Design and build a motorised rovor

You will have to evaluate pro's and con's for different designs, agree and then implement them as a team whilst keeping your robot to within a maximum size and a maximum budget.



Create an ingenious robot arm

Any design you can come up with, working with motors and servos, use your knowledge and ingenuity to come up with a reliable and fast system for collecting and depositing tokens.

Design & build a robot with AI (Artificial Intelligence)

You are going to design, build and test an amazing robot using materials supplied by Student Robotics. You will even have a budget to spend on any extra bits that you need that are not in the standard kit.

Integrate control electronics

Student Robotics is supplying a set of electronics for controlling your robot - Integrate motor controllers, servo controllers and general input/output devices so your AI can reach out into the real world.

Program the AI to give your robot the brains to outfox the competition

You will be using a set of Student Robotics tools and the powerful Python programming language to give your robot the intelligence it needs to win. Take information from a camera mounted on the robot and from other sensors you attach to find and retrieve tokens in a huge arena.

Take part in a regional competition

At Easter 2008 you will bring your robot to the University of Southampton to take part in a competition against other teams from the Solent area. With friends and family looking on, your robot will be released into the arena where it will take part in a series of tricky games against other robots. Once the game starts you have no control - trust your months of hard work to take your robot to victory!

The Competition

Your robot is going to take part in a series of games designed to test speed & agility, ability to manipulate tokens and intelligence in how it approaches problems. You will have to find and retrieve tokens faster and more accurately than your competitors - whilst navigating and avoiding obstacles.



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For more information

Contact your school liaison teacher
Visit <http://www.studentrobotics.org>
Email info@studentrobotics.org

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