

WMR

Warwick Mobile Robotics
Sponsorship and Information Pack
2014/15



Who we are

Warwick Mobile Robotics (WMR) is an on-going group research project carried out by a team of fourth year undergraduate students at the University of Warwick. This project is jointly run by the School of Engineering and Warwick Manufacturing Group (WMG). WMG are an institution within the University of Warwick, dedicated to improving organisational competitiveness through the application of technological innovation.

This year the project is being run by 8 final year Engineering students. We have a knowledge base ranging from Electrical and Systems Engineering to Manufacturing and Mechanical Engineering thanks to our University courses.

The project

During this project we are looking to develop a Mini Urban Search and Rescue (M-USAR) robot. This robot was envisioned by last year's WMR team and we plan to further develop its potential.

Urban Search and Rescue (USAR) robots are designed to locate survivors in hazardous environments, such as earthquake disaster zones, thus removing emergency service personnel from danger. Robots such as these also allow quicker location of survivors through the use of CO² sensors, infra-red sensors, cameras and microphones. An advantage of an M-USAR is that it is able to fit into smaller areas inaccessible by emergency personnel, allowing better exploration of a hazardous environment such as a collapsed building.

As part of showcasing our finished robot, we will be attending technology and engineering exhibitions and fairs during the year.



The M-USAR to be developed

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Our major 2014/15 project aims

1. Improve the reliability and performance of the existing M-USAR robot:
 - a. So it is capable of reliable tele-operation.
 - b. To have full mechanical functionality.
 - c. To utilise a sophisticated sensor array (including LIDAR mapping, CO₂ sensors, stereoscopic cameras, lighting, infra-red sensors and an inertial measurement system (IMU).
 - d. To operate safely in dangerous environments.
2. Exhibit the robot as an educational platform at technology and engineering exhibitions to showcase the robot and help inspire the next generation of roboticists and engineers.

Publicity at University

WMR is based in a modern laboratory within the International Manufacturing Centre (IMC) on the University of Warwick campus where our work area is visible to IMC visitors.

We regularly host guests of WMG and enjoy the chance to share our enthusiasm for our research. Previous visitors include past Prime Ministers, Gordon Brown and Tony Blair; the former President of India, Abdul Kalam; and more recently, the Tata Group Chairman, Ratan Tata. Our location also makes us popular with industrial visitors, and our work is regularly exposed to prospective students and parents at University open days.

Publicity in the public eye

We feel that promoting robotics and raising awareness of this subject is important. To this end, our WMR team have been exposing the project to a wider audience through television, radio, newspapers, magazines, the internet and exhibitions.

Most notably, our robot has featured on the Gadget Show on Channel 5, BBC Click and in E&T Magazine. We have also exhibited our robot at The Gadget Show Live 2011 (NEC, Birmingham), Antenna Live Exhibition 2012 (Science Museum, London) and the Imagineering Fair 2012 (Ricoh Arena, Coventry).



Gadget Show Live, 2011



Imagineering Fair, 2012

Our research and project progress is also showcased via our website (www.mobilerobotics.warwick.ac.uk), YouTube account (www.youtube.com/user/WarwickMobileRobots), Twitter account (@WMRobotics) and Facebook account (<https://www.facebook.com/WMRobotics>).

The above locations, as well as our team attire, are used to publicise our valued partners who make this project viable.

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How you can help us

To achieve our project aims we require capital, expertise, materials and components. This is where you and your company can help!

Anything you can offer which will aid in the development of our robot will be greatly appreciated. Whether that be the capital to allow us to purchase innovative components to add to the robot, the expertise to advise us on new and exciting robotic developments or the materials and components to help us build the robot, all assistance is welcome.

How you can benefit from becoming a WMR sponsor

In return for becoming a WMR sponsor, our team will be able to provide a range of publicity services for your company. This will include:

- Display of your company logo on:
 - The WMR laboratory wall and window displays in the Warwick International Manufacturing Centre (IMC)
 - All our posters and presentation material (within University, schools and exhibitions)
 - The main page of the WMR Search and Rescue Robot website
 - Our robot, which we hope to exhibit at technology and engineering exhibitions
 - The sponsor banner around our demonstration arena
 - Our team attire (commitment to sponsorship must be received before 5th Dec. 2014)
- Exposure to world class engineering students, graduates and future industry contacts and buyers through:
 - Displaying information about your company in the career information display area and WMR notice board within the School of Engineering
 - Displays within our highly popular laboratory space
 - Links to your website and information about your company under the sponsorship section on our website
 - Engineering events for current undergraduate students
 - An invitation to our end of year presentation giving you the opportunity to engage with the WMR team and other sponsors

Contact information

Thank you for taking time to read our sponsorship pack. We see this project as one of the most exciting and talked about ventures at the University of Warwick!

Sponsoring WMR can provide the opportunity to form crucial links between academia and industry. It is our sponsors who make this project possible and their support which has heavily contributed to the past successes of WMR.

If you are interested in sponsoring us and becoming a vital part in the future of Warwick Mobile Robotics please contact us via any of the following information.

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