



## Inside this package:

- An introduction to who we are, what we have achieved in the past and our aims for the future;
- Details of the past publicity we have gained;
- What we can offer you in return for your sponsorship;
- How we will invest your sponsorship;
- How to contact us.

# Introduction

Warwick Mobile Robotics (WMR) is an on-going student research project of the Warwick Manufacturing Group (WGM). The WGM is an institution within the University of Warwick, dedicated to improving organisational competitiveness through the application of technological innovation.

## *Project Background*

The RoboCup Rescue is an international competition that tests robots' search and rescue abilities in a simulated disaster environment. The WMR team has chosen to enter this competition as it provides not only an exciting engineering challenge, but a socially significant real world application for mobile robotics. The competition requires both a tele-operated and an autonomous machine to navigate simulated disaster zones. They are required to overcome challenging terrains, identify victims and produce a map of the environment.

This will be the fourth year of WMR's involvement in RoboCup Rescue. Last year's team won first place in the European competition, as well as retaining the best mobility title. We aim to continue this legacy of success by developing the accumulated technology and expertise of past teams, as well as the department as a whole. We aim to win our second successive European title and compete in the World RoboCup Rescue 2011 championship in Istanbul.

## *Achievements*

- 2008:** Pioneered the UK's involvement in the competition
- 2009:** Achieved Best in Mobility Award  
Placed third in the competition
- 2010:** Entire platform re-designed  
Retained Best in Mobility Award  
Placed first in the competition



2010 team with the tele-operated robot and 1<sup>st</sup> place prize

## *Aims*

Our aims are:

- To enter the 2011 European RoboCup Rescue competition in Magdeburg, Germany, with the goal of retaining the European championship;
- To complete the competition with at least double the points of the 2009/10 team and obtain 'Best-In-Class Mobile Manipulation' award;
- To qualify for and enter the RoboCup Rescue World Championships;
- To assess the possibility of WMR becoming its own entity and make the platform viable for commercial release.

# Publicity

WMR is proud of its associations both with the University of Warwick and external partners. We take our aim to advance research and development within the field of robotics seriously. As well as forging collaborative relationships with industry.

## *University Publicity*

WMR is based in a modern, attractive office/laboratory within the International Manufacturing Centre (IMC) on the University of Warwick central campus. We regularly host guests of the WMG and enjoy the chance to share our enthusiasm for our research. Previous visitors include Gordon Brown, Tony Blair and India's ex-Prime Minister, Abdul Kalam. Our location makes us popular with industrial visitors in addition to open day tours for prospective students.

## *Visits and Media*

It is also important to promote interest in robotics by visiting interested parties and demonstrating our work first hand. WMR has featured on the Gadget Show, the UK Mac Show and Richard and Judy, this kind of national exposure has generated a great deal of interest in our work, including interest from the Discovery Channel. We also enjoy involving the younger generation in engineering, through bringing our robot to school activity days as well as fairs aimed at school children. Following the success of last year's team we have appeared in the Sunday Times as well as local newspapers.

## *Responsibilities to Stakeholders*

As an important element of WMG we take responsibility for updating all stakeholders with our progress. As well as a regularly updated and visually appealing website ([www.mobilerobotics.warwick.ac.uk](http://www.mobilerobotics.warwick.ac.uk)), WMR distributes a monthly newsletter describing our progress. We use our laboratory, website, uniform, newsletter, university notice boards as well as our robot to publicise our partners. These channels reach a diverse range of students, postgraduates, and industry figures.



The 2010 European Competition in Magdeburg



# Sponsorship Proposal

In order to achieve our aims, specifically to improve the mobility and autonomous operation of the robot, we need to invest in hardware. As such, we are looking to raise capital or hardware from sponsors. In exchange, we will provide the following publicity for our sponsors:

	SILVER	GOLD
Company logo displayed on:		
<ul style="list-style-type: none"> <li>The laboratory wall and window displays</li> </ul>	✓	✓
<ul style="list-style-type: none"> <li>Monthly newsletter distributed to all stakeholders including sponsors and associates</li> </ul>	✓	✓
<ul style="list-style-type: none"> <li>Inclusion in all our posters and presentation material</li> </ul>	✓	✓
<ul style="list-style-type: none"> <li>Information about your company and links to your website under the website sponsorship section</li> </ul>	✓	✓
Promotion of your company logo in more prestigious places including:		
<ul style="list-style-type: none"> <li>The main page of our website</li> </ul>		✓
<ul style="list-style-type: none"> <li>On our robots, including our competition entries</li> </ul>		✓
<ul style="list-style-type: none"> <li>On our team uniform (<i>sponsorship must be received before 31/12/2010</i>)</li> </ul>		✓
<ul style="list-style-type: none"> <li>The sponsor banner around our demonstration arena</li> </ul>		✓
<ul style="list-style-type: none"> <li>Official stationery and email/letter templates</li> </ul>		✓
Distribution of company literature to world class engineering students and graduates through:		
<ul style="list-style-type: none"> <li>Careers information display area located next to student pigeon holes</li> </ul>		✓
<ul style="list-style-type: none"> <li>Displays within our highly popular office/laboratory</li> </ul>		✓
<ul style="list-style-type: none"> <li>Your company information will be displayed on the WMR notice board within the engineering department</li> </ul>		✓
	<b>Below £3000</b>	<b>Equal to, or above, £3000</b>

# Investment Areas

For maximum improvements we are looking to invest in the following:

## *Office IT Equipment*      £3000

We need a new CAD suite consisting of two workstations to reduce our design time and produce more accurate models for simulation and analysis prior to manufacture. A laptop is also required for the user interface used during the competition.

## *Competition Entry*      £12000

- Funding for European and World competition entrance
- Travel, accommodation, and insurance to and from Germany and Istanbul

## *Sensors*      £2000

It is crucial that the robot platforms give accurate feedback, in order to achieve this we need sensors which can perform reliably. We expect to purchase new:

- Potentiometers for arm improvements
- Digital compass or gyroscope for navigation control on the autonomous robot.

## *Mechanical*      £5000

Mobility is the greatest strength of our robot and we aim to further develop this quality. We see opportunities for improvement through selective upgrades and reengineering, for example:

- A new robot arm
- Gripping manipulator for pick and place applications

# Contact List

If you are interested in sponsoring Warwick Mobile Robotics please contact us using the following contact information.

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## Sponsorship

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## Sponsorship / Finance

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