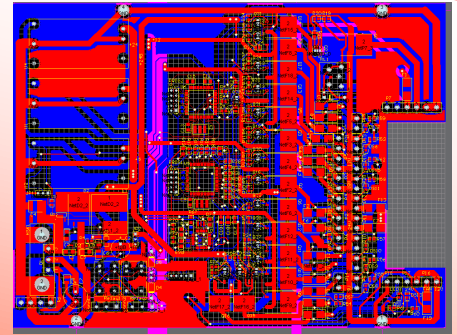


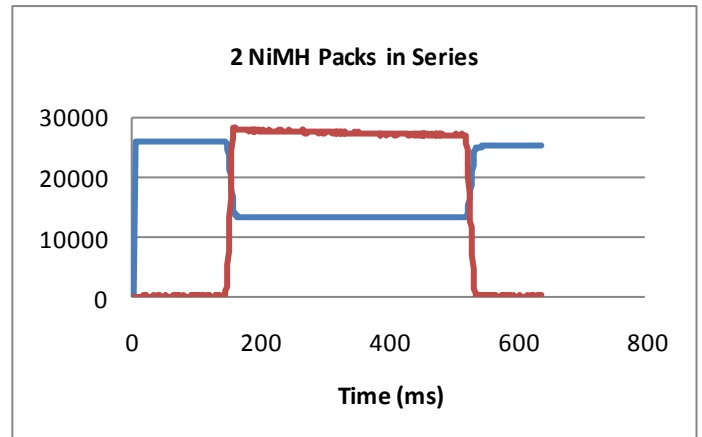
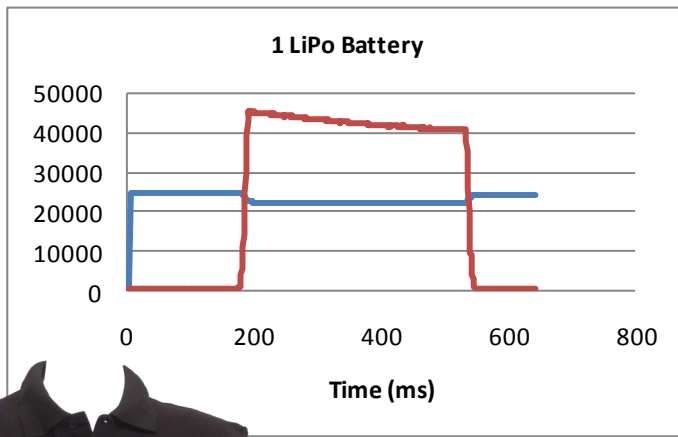
Development of the electronic subsystems is progressing with a new PCB designed to manage the DC power supplies, implementing remote switching of all output channels.

This will be produced shortly and a temporary fix to the old board (right bottom) will enable the robot to function at the upcoming open day at Sellfield.



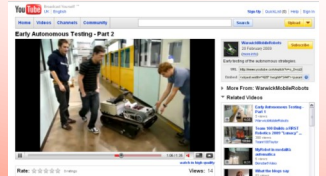
The robot will now run on lithium polymer (LiPo) batteries for improved performance at high power. Compared with the old NiMH batteries, the new LiPo packs deliver much more current on full load and have a much smaller voltage drop which stops other systems dropping out.

(red is current in mA, blue is battery voltage in mV)



Using a Remotec chassis the robot autonomous navigation has been tested. The robot successfully negotiated the IMC workshop using the software developed in simulation. The next stage is to produce a maze with wooden walls to fine tune the AI and replicate competition conditions.

See our autonomy testing video on our YouTube channel
www.mobilerobotics.warwick.ac.uk/media/videos



Significant progress has been made with autonomous victim identification using the infrared camera. This will be used when the robot is in the autonomous zone, to identify the heat emitted by the mannequins.

The algorithm works by finding the location and size of all 'hot' areas over a threshold, seen by the IR sensor. The camera will scan its surroundings until it finds a hot-spot over a certain size. The camera will then track the heat as the robot moves towards the victim and place the victim's location on the map, after raising an alert to the remote operator.



New Parts have been machined

in association with...

