Urban Search and Rescue Robot (Group 20):

Search and Rescue Robots are designed to aid in victim localisation and rescue, especially in locations inaccessible to humans, and are gaining increasing importance as the number of natural disasters around the world continues to grow [1]. The Urban Search and Rescue Robot Group Project concerns itself with the development of a remote-control robot to fulfil said purpose. It is a continuation of an ongoing series of different robot iterations that has somewhat stalled over the course of the past few years; leading to an effective relaunch in Autumn 2016. At project handover the 2017 group inherited a basic mechanical robot design, lacking motor control, instrumentation and mechanical design optimisation. The key aims the group aspires to achieve by Summer 2018 are to equip the robot with: a safely distributed power supply, a functioning wireless motor control mechanism and instrumentation, as well as a mechanical robotic arm. Additionally, the inherited design will undergo reparation and extensive light weighting.

Another central focus of the project is to procure additional sponsorship and to improve the public profile of the project. A good means to achieve this end was certainly the design of a poster that summarizes the project in a way that allows non-technical audiences to gain an insight into its different aspects, providing a system overview of the electronic design and visualisations of the robot and the designed arm. In addition to this, the poster gives a glimpse of where the project could develop in future, looking past this academic year.

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References:

1. DIE WELT. (2008). *Umwelt: Naturkatastrophen durch Klimawandel verdoppelt - WELT*. [online] Available at: https://www.welt.de/politik/article1576996/Naturkatastrophen-durch-Klimawandel-verdoppelt.html [Accessed 29 Nov. 2017].