Student Robotics Risk Assessment Form

March 30, 2015

Activity being assessed: Student Robotics Competition (25 - 26 April, 2015)

Persons at risk: Competitors, Team Leaders, Blueshirts, Newbury Racecourse Staff

Location: Newbury Racecourse Grandstand

Assessor's name: Andrew Busse

Responsible Persons: Sam Phippen (SC - Events); Team Leaders

Date of assessment:

1 Risks

The following risks have been considered for the Student Robotics Competition. Further description of the meaning of risk ratings (presented in this section as $L \times S$) can be found in the next section.

This risk assessment is to be considered in addition to the Newbury Racecourse Generic Risk Assessment (dated 23/03/2012)

Hazard	**Control Measures**	**Responsible Person**	**Risk Rating**
Injury while using manual or power tools	Student Robotics will not provide any tools to competitors. All tools brought by Student Robotics will only be used by SQEP Blueshirts, and will be safely stored when not in use. Teams will bring their own tools - Team Leaders must ensure tools are fit for purpose, that students using the tools are competent, and are wholly responsible for their use.	SC - Events Team Leaders	4
Interaction with robots: electric shock, minor injury	Team Leaders to supervise work on robots in team pits, Blueshirts will also intervene if work seems unsafe. Food and Drink is not permitted in team pit areas. Robots subject to a safety inspection before entry into an arena. Arena access controlled by Blueshirts - maximum of 4 teams at a time, and modification of robots inside the arena is banned.	SC - Events, Team Leaders SC - Events	3
Trip Hazard from trailing extension leads	Extension leads taped down and inspected regularly, kept away from walkways where reasonably practicable. Blueshirts and Team Leaders to enforce teams keeping within their areas and that areas are kept tidy	SC - Events, Team Leaders	1

Hazard	**Control Measures**	**Responsible Person**	**Risk Rating**
Battery failure - smoke, fire	Teams will hand over batteries and chargers on arrival, from this point SQEP Blueshirts to handle battery charging in a designated area. Blueshirts and Team Leaders to identify batteries showing signs of damage or swelling and deliver to Helpdesk for safe disposal.	SC - Events, Team Leaders	4
Injury due to objects falling from arena / arena components coming loose	Arena to be constructed and tested as per Method Statement, and will be subject to inspection by Blueshirts throughout the event, with interventions for repair if deemed necessary	SC - Events	3

2 Assessment Guidance

The risk ratings of the risks in the previous section are calculated by multiplying L, the likelihood rating, by S, the severity rating.

Likelihood	Likelihood rating
Very unlikely	1
Unlikely	2
Likely	3
Fairly likely	4
Very likely	5

Severity	Severity rating
First Aid injury/illness	1
Minor injury/illness	2
'3 day' injury/illness	3
Major injury/illness	4
Fatality/disabling injury	5

The following should be used to rate the risk and plan corrective action:

Risk Rating	Category	Tolerability	Comments
1–2	Very Low	Acceptable	No further action is necessary other than to ensure that the controls are maintained.
3–4	Low	Acceptable	No additional controls are required unless they can be implemented at very low cost (in terms of time, money and effort).
5–7	Medium	Tolerable	Consideration should be given as to whether the risks can be lowered, where applicable, to a tolerable level, and preferably acceptable level, but the costs of additional risk reduction measures should be taken into account. The risk reduction measures should be implemented within a defined time period.
8–14	High	Tolerable	Substantial efforts should be made to reduce the risk. Risk reduction measures should be implemented urgently within a defined time period and it might be necessary to consider suspending or restricting the activity, or to apply interim risk control measures, until this has been completed. Considerable resources might have to be allocated to additional control measures.
15 and above	Very High	Unacceptable	Substantial improvements in risk control are necessary, so that risk is reduced to a tolerable or acceptable level.