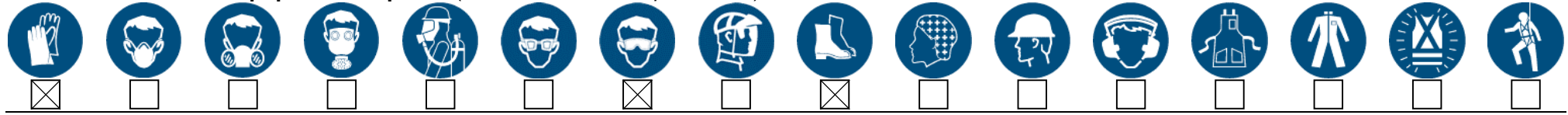


**Process/Equipment:** Kickstart Workshops **Location :** School of Physics and grounds

**Procedure Developed by :** Tom Gordon **Approved by :** Tom Gordon **Date :** 23/09/2011

**Personal Protective Equipment Required** (Check the box for required PPE):



Apparatus	Activity <i>(Steps in the process/task)</i>	Hazards Identified <i>(What could cause an injury)</i>	Risk Score <i>(How harmful is it)</i>	Controls <i>(What can be done to minimise the risk of injury)</i>
Jumping rings	Push the button on the capacitor to make the rings leap into the air.	Projectiles in a confined space could cause eye or face injuries.	4	Ensure observers are at least 2 metres from apparatus. Only to be operated by a trained demonstrator.
Liquid nitrogen	Decanting liquid nitrogen from flask bowls. Place various objects into bowl, such as rubber strips.	Possibility of cryogenic burns on exposed skin	6	Only trained operators to use liquid nitrogen. PPE is to be worn (gloves, goggles, covered shoes) and only tongs are used to manipulate objects which have been placed in the liquid. Students to wear PPE when taking part in demonstration, and be under supervision by demonstrator
Radioactive apparatus	Measure with Geiger counter	Prolonged exposure or ingestion could cause radiation damage	6	Very low activity sources, properly encased to prevent leakage of material
Lead blocks	Used in conjunction with radioactive materials	Prolonged exposure or ingestion	6	minimise handling, wash hands after use. Demonstrators are trained, and inform students.
Electrical equipment	Use of mains connected equipment	Possible of electrical failure	6	Electrical testing and tagging of all mains-connected apparatus has been carried out
Transformers	Connecting high voltage power supplies	Possibility of faulty connection	6	Electrical testing and tagging of all mains-connected apparatus has been carried out. Trained personal will monitor correct usage and handling of large voltages.

