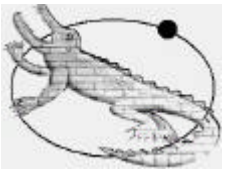
Assessment Form for Integration of Electrical

Equipment into an Experimental Rig



The Cavendish Laboratory

Location of rig ……

Intended function ……

	Yes	***No***
Add up the power (or current) requirements of the individual items in the rig Is the incoming supply cable of the correct rating and fused correctly? Note: recording currents to the nearest 0.5 A is sufficient, and 13 A at mains voltage is equivalent to approx 2.9 kW.		
Is the rig powered from a single source (preferred)? If not, is it clear which parts are powered from which source(s)?		
Is the incoming line placed to avoid slips, trips, damage from abrasion, liquid nitrogen, immersion of live parts in water?		
Has the earth connection been checked to establish its integrity? If safety is to be achieved by some other means record this below.		
Is the equipment placed in the rig so as to avoid overheating?		
Have the items of equipment been connected to distribution boards so as to avoid daisy-chaining and the use of adaptor blocks?		
Is it obvious how to disconnect the apparatus in an emergency (to people other than the users)? If not obvious by position, is there adequate labelling?		
Is it obvious how to disconnect the apparatus from all other sources of energy or associated hazards (e.g. water, compressed air, cryogens)		
Is the means to turn off the electrical supply in an emergency readily accessible and free from obstacles?		

Continued:

	Yes	*No*
Is there a means to isolate the equipment so that it remains dead? (could be the same as the disconnection – if it is powered from a plug/socket arrangement the answer will be yes provided sufficient steps are taken to prevent inadvertent reconnection).		
Are all live conductors (that might constitute a danger) on any associated apparatus shrouded or insulated to prevent contact?		
Is any associated apparatus earthed where necessary to prevent danger?		
Are all high voltage connectors (if any) arranged so that contact cannot be made with them while live (e.g. if the connector is removed from the rig while the power supply is 'on'.)?		
Have any radiation sources (e.g. RF) been assessed quantitatively, suitable shielding measures taken, and the shields tested? (enter details below)		
Is an RCD required? (in general for locations where water may increase the hazard, or where conductors are easily damaged, such as a workshop floor)		
Is an emergency red button needed? (e.g. where live electrical work is foreseeable)		
Have the users of the rig been shown this risk assessment, and the risk assessment(s) pertaining to the items that constitute the rig? Name the users:		
Have they been told of the necessity for the conditions described in this assessment (i.e. that all answers remain YES) to be maintained at all times?		
Have they been told what to do in an emergency? Detail below:		
Have they been told to report faults and get them fixed? Detail below:		
Have the users of the rig been warned of the prohibition on working live where there is danger? (danger being defined as a risk of injury)		

Comments, and any additional risks to be controlled:

Risk assessment carried out by …… Date …….