

Safety

ROBOTICS LAB Student Safety Inspection Sheet

Break group into teams and complete this safety inspections sheet for the lab.

Circle the correct response. **S** – Satisfactory **U** - Unsatisfactory **NA** - Not Applicable.

On the back of the sheet identify any unsatisfactory conditions and suggest ways to improve the facility.

General Facility Safety

1. **S U NA** One instructor has the overall responsibility for each major shop facility.
2. **S U NA** Each major shop facility can be locked separately.
3. **S U NA** Provisions have been made for keeping inappropriate garments and other materials out of lab areas.
4. **S U NA** Good housekeeping standards are observed.
5. **S U NA** Student educational cleanup program is backed up daily with complete custodial services.
6. **S U NA** Waste is collected daily and disposed of by the custodian.
7. **S U NA** Floors are maintained in a condition conducive to safe practices with nonskid surfaces provided around machines.
8. **S U NA** Designated safety zone areas are provided around all dangerous work areas.
9. **S U NA** Aisles are clear of protruding materials.
10. **S U NA** Room furniture and equipment are arranged for optimum safety.
11. **S U NA** Non-glare lighting is provided for all work areas according to state regulations.
12. **S U NA** Stairways within existing laboratories have safe tread and rise with unobstructed access and with approved railings.
13. **S U NA** Railings and treads are color coded.
14. **S U NA** Two widely separated marked exits are available from each major laboratory.
15. **S U NA** Facilities are light, pleasant, clean and conducive to good instruction.
16. **S U NA** Machine operation regulations and safety procedures are posted conspicuously near areas of operation.
17. **S U NA** Parts of machines and equipment needing special attention or caution are painted brightly with correct color.
18. **S U NA** Machines and work stations are located in relationship to the amount of supervision required
19. **S U NA** Machine location has been determined by needed operator space requirements and process compatibility.
20. **S U NA** Health hazards were considered in plant design to minimize injuries from excess heat, noise, fire, and fume conditions.

Safety

ROBOTICS LAB Student Safety Inspection Sheet

Storage Facility Safety

- 21. **S U NA** Storage racks and shelf are designed and constructed to meet storage requirements.
- 22. **S U NA** Materials are stored in a safe manner.
- 23. **S U NA** Students and instructors are protected from protruding materials and sharp edges.
- 24. **S U NA** All flammables and combustible liquids, toxics, and caustics are stored securely in proper containers, identified by name and degree of hazard.
- 25. **S U NA** Fire approved storage cabinets are provided for all flammable and combustible liquids.

Electrical Safety

- 26. **S U NA** All power and wiring is installed and maintained in accordance with national electrical code and -
 - a. **S U NA** a. Switches are enclosed.
 - b. **S U NA** b. Circuits are identified.
 - c. **S U NA** c. All power cords are of proper length and determined by gauge and load.
 - d. **S U NA** d. Power supplies are provided with overload protection.
 - e. **S U NA** e. Lockouts are provided.
- 27. **S U NA** All outlets and machines are grounded.
- 28. **S U NA** All extension cords are provided with three pronged plugs, except those which are double insulated.
- 29. **S U NA** Readily accessible individual "off" and "on" controls are installed on all machines as well as in the room power control panel.
- 30. **S U NA** A master control "Panic Stop System" is available and conveniently located in each laboratory to shut off power.
- 31. **S U NA** Laboratory power panels have clearly identified individual power switches for each machine.
- 32. **S U NA** All hand held portable power tools are equipped with "dead man" controls only.
- 33. **S U NA** Regulators, stands and pilot lights are provided for all electrical soldering irons.
- 34. **S U NA** All electrical apparatus in areas of concentrated vapors are vapor proof.

Safety

ROBOTICS LAB Student Safety Inspection Sheet

Equipment Safety

35. **S U NA** Safety instructions for each machine are posted.
36. **S U NA** Machines are in safe operating condition at all times.
37. **S U NA** "Out of order" signs are secured to machines not in working condition and the power panel switch is in the "off" position.
38. **S U NA** All machines are securely fastened in place.
39. **S U NA** Machines and equipment are provided with guards meeting industrial standards and guards are in proper position for safe machine operation.
40. **S U NA** Equipment control switches are readily accessible to the operator while he/she is in a normal operating position.
41. **S U NA** A positive "off" position switch is located on each machine.
42. **S U NA** Proper tools and materials are available for machine cleaning.
43. **S U NA** Hand tool equipment is stored with sharp cutting edges protected.
44. **S U NA** Hand tools are properly maintained and sharp.
45. **S U NA** Bench tops are appropriate for the planned activities.