



UNIVERSITY OF GEORGIA

Small Satellite Research Laboratory

Clean Room Procedures

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Introduction

The purpose of this document is to outline the procedures needed to safely and correctly operate the clean room of SSRL. This document will be split into sections: General Use, Maintenance, and Storage. In the General Use section, this document will outline correct procedures for entering and exiting the clean room, as well as outlining best practices associated with working with in the room. In the Maintenance section, this document will outline what steps must be taken to insure the continued operation of the clean room. In the Storage section, this document will outline the steps need to store the clean room both in the short term (~ 1 week) and the long term (~ 6 months) in order to minimize the about of work needed to bring the clean room back online.

General Use

Entering the Clean Room

- 1) Wash your hands thoroughly with non-aromatic (non-scented) soap
- 2) Stand completely on the sticky pad just outside the changing area
 - a) Make sure to conserve the area used on the sticky pad
 - i) If no area of sufficient size for your feet exist on the sticky pad, peel off and throw away that layer
 - b) Lift feet up and down multiple times to ensure that as much dirt as possible is removed
- 3) Put on blue booties
- 4) Enter the changing area
 - a) Make sure to stand on the half that is closest to the garments
- 5) Put on gloves
 - a) If working on electronics, make sure to put on ESD gloves
 - b) If **NOT** working on electronics, make sure to put normal latex gloves

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- c) **MINIMIZE** contact with the finger and palm area of the outside of the glove
- 6) Put on face mask
- 7) Put on hairnet (make sure to cover all hair and to cover your ears)
 - a) Have your partner verify that no hair is uncovered
- 8) Put on full body covering
 - a) Obtain from clean end of garment rack
 - b) Put on feet first (Making sure the top of the suit does not come into contact with the ground)
 - c) Make sure to flare collar to surround your neck completely
- 9) Put on the secondary feet coverings
 - a) Put on one at a time
 - b) Make sure foot covering does not come into contact with “dirty” ground
 - c) Immediately swing the foot to the “clean” side of the changing area
- 10) Put on safety glasses
- 11) Have partner re-verify that all hair is covered
- 12) Open clean room side door of changing room
- 13) Enter clean room

Exiting the Clean Room

- 1) Open clean room side door of changing room
- 2) Enter changing room
- 3) Close clean room side door of changing room
- 4) Remove safety glasses
- 5) Positioned in the “clean” side of the changing area
 - a) Remove and dispose of secondary shoe coverings and place on in storage area
 - b) Remove and dispose of body covering
 - i) Hang in on dirty end of the garment rack
- 6) Exit changing area
 - a) Remove and dispose of primary shoe coverings, gloves, facemask, and hairnet

General Best Practices

1. There can **NEVER** be an unattended person in the clean room
 - a. Before entering the clean room, all “Electronics” messaging channels and the Testing messaging channel must be notified with an “@team” followed by the formulaic phrase: names of people entering clean room + “supervised by “ + the name of the person watching from the outside + “will be entering the clean room to “ + the action that will be attempted inside the clean room.
 - b. A single person can be in the clean room if and only if there is someone that is devoting 100% of their attention to the person inside in order to provide assistance and accountability
 - c. Even when operating with two people in the clean room it is strongly advised to have a spotter outside of the clean room to provide support
2. The maximum capacity of the clean room is **THREE** people.
3. Make sure **ALL** needed documents are on our cloud storage platform to ensure easy access
4. **ALWAYS** move slowly and deliberately (rapid, sudden movements generate particulates)
5. Be especially careful not to spill any liquids or otherwise make a mess in the clean room as cleaning up may require the temporary shutdown of the clean room.
6. People should refrain from using cosmetics that contain sodium, magnesium, silicon, calcium, potassium, or iron

7. People handling electronics must be grounded at all times as the clean room suits will allow easy build-up of static charge
8. All personal items such as keys, watches, rings, matches, lighters and cigarettes should be stored in the personal locker outside the gowning room
9. **NO** eating, smoking or gum chewing allowed inside the cleanroom
10. Only approved cleanroom paper shall be allowed in the cleanroom
11. Ball point pens shall be the only writing tool used
12. All tools, containers and fixtures used in the cleaning process should be cleaned to the same degree as the cleanroom surfaces. All of these items are a source of contamination
13. **NO ONE** who is physically ill, especially with respiratory or stomach disorders, may enter the clean room
14. Sitting or leaning on equipment or work surfaces is prohibited