IISER Mohali Robotics Club: Club Room Rulebook

v0.1 | Effective: Currently in review

Purpose This rulebook defines safe and fair use of the Robotics Club Room for projects, storage, fabrication, and testing. It applies to all members, guests, and collaborators.

Roles, Categories & Access Credentials

Category	Who	Access scope	Credentials
Members	Students working with the club on a temporary or short-term basis (e.g., end-sem PHY211 project, course minis, one-off tasks).	Access during posted hours or with prior permission; may use tools per policy under supervision where required.	No biometric. Sign-in required.
Active members (biometric)	Ongoing contributors to official club projects and operations.	Access during posted hours; may open/close the room as designated; may supervise permitted operations per policy.	Biometric eligible. Assigned only after approval by club officials; revocable.
Guests / visitors	Not working on any official club project (drop-ins, friends, visitors, outreach).	Entry only when accompanied by a permitted member or allowed official; **no tool or equipment operation**. Observation only.	No biometric. Temporary entry only.
Club officials (convenors and ex-convenors)	Appointed/previously appointed student leads responsible for operations, safety, and stewardship.	May approve access, schedule operational holds, and supervise restricted tools; ex-convenors act as escalation for complaints.	Manage biometric assignment for active members; maintain email-first records.

Biometric policy. Biometric access is assigned only to *active members* after approval by club officials and can be revoked for safety, misuse, or inactivity. "Members" are temporary contributors (e.g., PHY211/end-sem projects) and are not eligible for biometric by default.

A. Access & Conduct

1. **Access Hours.** Use the club only during posted access hours or with prior permission from allowed officials/permitted members in charge; biometric entry applies to approved *active members* only.
2. **Operational Holds.** The **club may temporarily stop access** for segregation of components, audits, cleaning, or maintenance. Such holds will be announced by email when possible.
3. **Night Work (Recommendation).** Heavy/noisy or hazardous operations (drilling, grinding, extensive soldering) are **discouraged at night**. Aim to finish such operations **before 22:00**.
4. **Sign-In/Out.** Record your name, roll number, **designation (Member / Active member / Guest / Official)**, in/out time, and purpose in the log book if available.
5. **Guests.** Guests/visitors need prior permission, must be accompanied by a permitted member, and **may not use tools or equipment**.
6. **Respect.** Treat people, tools, and ongoing projects with care. No harassment, vandalism, or disruptive behavior.

B. Food, Drinks & Cleanliness

1. **Food.** Dry snacks are fine. Keep liquids far from electronics and machines.
2. **Clean Up.** Clear waste immediately; wipe benches you used.
3. **Spills.** If a spill occurs, stop work, disconnect affected gear (if safe), and email the club regarding the incident with full transparency.

C. Storage & Labelling

1. **Project Bins on Tables Only.** Keep project bins/boxes **only on the tables**, not even on the standing desk at the center. Do not place project bins in the almira.
2. **Almira Use (Sensitive/Expensive Projects).** Prior permission from allowed officials is required to use the almira for expensive/sensitive projects.
3. **Labels.** Each bin must list project name and/or name of at least one team member.
4. **Clearing.** Unattended/unclear items may be cleared after notice.

D. Components: Taking, Returning, Reporting

1. **Take Only What You Need.** Be conservative with passives and small parts.
2. **Return To Correct Boxes.** If you used a resistor from the resistor box, put it back in the correct value drawer/strip. Same applies to transistors, diodes, ICs, headers, jumpers, dev-boards, sensors, motors, drivers, screws, nuts, washers. Keep assortments tidy.
3. **If Unsure.** Don't dump misc parts into random bins. Ask an allowed official or leave them in a clearly labelled "to-sort" tray, which will be available on the standing desk at the center.
4. **Damage/Missing.** If a part/tool is damaged or missing, email roboticsclub@iisermohali.ac.in immediately. If you found it damaged, mention when it was last seen in good condition (date/time/person if known).

E. Tool & Equipment Policy

E1. Permissions Matrix

Category	Use Policy	Notes
Hand tools (screwdrivers, pliers, cutters, tweezers)	Members and Active members may use. Guests/visitors may not operate tools.	Return to correct peg/slot; report issues by email.
Soldering & small electronics tools	Members and Active members may use. Guests/visitors may not operate tools.	Use fume extraction if available; do not solder near the 3D printer.
Power tools (hand drill, rotary/angle grinder)	Only allowed officials or permitted Active members may operate; Members require explicit permission and supervision; Guests/visitors may not operate.	PPE mandatory (glasses, mask/ear where applicable).
Oscilloscope, logic analyzer, function generator	Members/Active members only; use only if you know correct operation or with supervision. Guests/visitors may not operate.	Wrong settings can damage probes/instruments.
3D printer	No direct use without permission. Requests only via email to roboticsclub@iisermohali.ac.in. Operation by allowed officials or permitted members. Guests/visitors may not operate.	Strictly scientific/project use; no personal prints.

E2. General Rules

1. **Keep Hazards Away From 3D Printer.** Do not use drills, grinders, or soldering anywhere near the 3D printer.
2. **Night Work (Recommendation).** Avoid drilling/grinding/extended soldering at night; target 22:00 as a soft cutoff for such operations.
3. **Power Off.** After use, switch off instruments and unplug portable tools.

F. 3D Printing

1. **Channel.** All 3D print requests go by email to roboticsclub@iisermohali.ac.in.
2. **Printer and materials.** Printer: **Bambu Lab A1**. Filament stocked: PLA, PLA+, Pla Pro (all the filaments are subject to availability). Maximum build volume: **25.6 cm** × **25.6 cm** × **25.6 cm**; recommended working envelope: **up to 24 cm cube** for reliability.
3. **Allowed use. Only scientific/academic project work**. Personal or non-scientific items (door hooks, generic holders, etc.) are **not allowed**.
4. **Operation.** Printing is performed or supervised by allowed officials or permitted members. **No unsupervised operation.** Guests/visitors may not request or operate prints.
5. **Models and files.** Email your **STL/OBJ (or other exported model files)** to club along with your **name**, **project name**, and a brief **reason/justification** for the print. Also spec-

ify the **filament type and colour** you want. The Robotics Club will review the request, may ask for changes or **decline/cancel** prints that are costly, unsafe, or irrelevant, and (if approved) will return a **club-sliced** file for the **Bambu Lab A1** (typically **.gcode.3mf**). For the step-by-step workflow (request → approval → sending to printer), see **Appendix A**.

6. **Safety near the printer. Do not drill, grind, or solder anywhere near the printer.** Keep the surrounding bench clear; do not touch the machine without permission.

G. Equipment Use Duration & Project Email (No Hard Limits)

1. **No Fixed Time Limits.** There is **no formal time limit** on equipment use. Be considerate so others can proceed.
2. **Mandatory Project Email.** For each project, send an email to roboticsclub@iisermohali.ac.in including:
   - **Detailed list of all parts/components** you used (ICs, sensors, motors, passives, hardware, PCBs/boards, etc.).
   - **Short project description** (goal, current status).
   - **Assistance log:** which allowed officials/permitted members assisted you in using restricted tools (e.g., 3D printer, angle grinder), including date(s).

H. Electrical & Test Safety

1. **Know Your Limits.** If unsure about scope probes, PSU limits, or grounding—pause and ask a club official.
2. **Voltage/Current Limits.** Set current limits before powering circuits. Double-check polarity and ratings.
3. **Probes.** Use appropriate probes/ranges. Never exceed rated voltage.

I. Housekeeping & Lock-up

1. **Before Leaving:**
   - Power down instruments; unplug portable tools; close laptops.
   - Return all tools/components to proper places; clear the bench; dispose of trash.
2. **Doors & Windows.** Close and secure all the doors and windows, including terrace entry.
3. **Lights & Fans.** Switch off lights and fans.

J. Contacts

Primary club email for all operational communication: roboticsclub@iisermohali.ac.in

Current officials:

- **Aman Rathore** — ms24058@iisermohali.ac.in Phone: +91 80034 79539
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Appendix A. Using the 3D Printer (Bambu Lab A1): Full Protocol

This appendix provides the operational workflow referenced in **Section F (3D Printing)**. The intent is to keep slicing settings consistent and safe for the club's standard materials, especially the locally sourced Rajendra's generic PLA, and numakers' PLA+ & PLA Pro.

A1. Submit a print request by email (STL/OBJ only)

1. Email your exported model file(s) (**.stl**, **.obj**, or equivalent) to roboticsclub@iisermohali.ac.in.
2. In the same email, clearly include:
   - Your **name** and **contact details**.
   - Your **project name** (club/campus project) and a short **reason/justification** for the print (why it is needed).
   - Requested **filament type** and **colour**. If you are unsure, specify the reason in detail so that club officials can choose the best option.
   - Quantity and any deadlines (if applicable). Urgent requests may be declined if they disrupt scheduled club work.

A2. Club review and approval

- The Robotics Club will review the request for feasibility, cost (time/filament), relevance to scientific/academic project work, and safety.
- If the print is **costly**, **irrelevant**, or requires changes (splitting parts, mouse ears, wall thickness, room for expansion, etc.), the club may request modifications or may **decline/cancel** the print. This is at the club's discretion.

A3. Receive the club-sliced file (do not re-slice)

1. If approved, the club will reply with a **club-sliced** file intended for the **Bambu Lab A1**, typically a **.gcode.3mf** file.
2. If your requested filament/colour is available, the reply will also specify the **spool number / AMS slot** to use.
3. **Multi-filament prints are not allowed** at present. Use a **single** filament/spool per print.
4. The reason the club provides the sliced file is to ensure consistent settings tuned for the club's common PLA variants. Do not modify the file or re-slice with custom settings; request changes by email instead.

A4. Send the job to the printer (mobile or laptop)

1. Install Bambu Lab app Android/iOS/laptop/desktop.
2. Log in using the **Robotics Club printer account**:
   - The club email ID and password are written on the **paper sheet taped on top of the 3D printer**.
3. Connectivity:
   - Connect to the club room Wi-Fi using the SSID/password, **or** use mobile data.
4. Upload and send the file:
   - Upload the received **.gcode.3mf** file to the Bambu app, select the **Bambu Lab A1** printer, and send the job.
   - Confirm you are sending to the correct printer before starting.

5. Filament setup:
    - Use the **spool number / AMS slot** indicated in the club's reply.
    - Ensure the AMS slot in use matches the filament specified in the approval email.
6. Start the print and monitor till the first two layers are printed correctly. Do not leave the club room until the printer goes to the 3rd layer.

A5. If something needs to change

If the print fails, looks incorrect, or you need a design or slicing change, do **not** experiment with new slicing profiles. Contact robotics club, club will advise or re-slice as needed.