



Lithium-ion Battery Policy

Purpose: This policy establishes required practices for the use, storage, charging, transportation and disposal of lithium-ion (Li-ion) batteries at Harvey Mudd College, in order to reduce fire risk, protect community safety, and ensure compliance with applicable safety standards.

Definitions:

- **Lithium-ion battery:** A battery that is a rechargeable power source that works by moving lithium ions between two electrodes. These batteries are commonly found in devices such as laptops, phones, e-scooters, e-bikes, e-skateboards, hoverboards, and other personal electronics.

Policy Statement:

At Harvey Mudd, the safety of our students, faculty, staff, and visitors remains our highest priority. As lithium-ion battery usage increases across academic, residential, and personal settings, it is essential that all community members follow established safety practices to minimize hazards, including overheating, fire, and equipment failure. However, with this increased usage comes a responsibility to reduce fire risk and protect ourselves and those around us.

Prohibited Actions: Charging lithium-ion batteries overnight or unattended, repairing and/or modifying battery packs, or using non-manufacturer approved or incompatible charging adapters is strictly prohibited. Unapproved charging adapters refers to chargers that are not provided by the manufacturer or do not meet Underwriters Laboratories (UL) safety standards.

Safe Practices Guidelines: There are specific safety steps that must be followed when using and charging lithium-ion batteries. These guidelines are essential to maintaining a safe and secure environment for our entire community.

- **Battery condition** - Before using or charging a lithium-ion battery, always inspect its condition. Batteries that appear damaged, swollen, or unusually hot pose a significantly higher risk of fire and should not be used. Taking a moment to check for visible defects is a simple but essential step in maintaining safety for yourself and those around you. Take appropriate measures to safely dispose of the damaged Li-Ion batteries in accordance with the disposal procedures outlined in this document.
- **Charger Compatibility** - Always use the charger specifically designed for your lithium-ion battery. Using incompatible chargers can compromise battery integrity, increase the risk of overheating, and potentially lead to fire hazards. Manufacturer-approved chargers ensure safe and efficient charging, helping protect both the device and the user.
- **Charging** - When charging lithium-ion batteries, follow these required safety practices:

- Keep batteries away from flammable materials (e.g., bedding or fabrics) and do not allow the batteries to exceed recommended charge times. Charging in unsafe environments or beyond recommended limits increases the risk of overheating and fire. Safe charging practices are essential to protecting both individuals and property.
- Always charge lithium-ion batteries away from doors and windows. This precaution helps ensure a clear path of egress in the event of overheating or fire, allowing for a safer and quicker evacuation if necessary.
- Never leave batteries charging unattended or overnight. If you need to leave the room, or if residents are going to sleep, disconnect the charger and discontinue charging the battery. Continuous monitoring during charging is essential to quickly identify any issues and prevent potential safety risks.
- Don't overcharge the battery. Once it is fully charged, disconnect it from the charger.
- **Storage guidance** - To safely store Li-ion batteries, keep them in a cool, dry place away from direct sunlight and heat sources, at a charge level around 40%, according to the U.S. Chemical Storage. Protect the terminals to prevent short circuits, store them in a non-conductive container or their original packaging, and separate them from other flammable materials. For long-term storage, recharge them to approximately 40% state of charge at least once every six months.
- **Transportation** - Personal-use batteries may be transported using everyday methods such as backpacks or pockets. However, larger batteries intended for use in projects, laboratories, or similar settings must meet the following safety requirements: terminals must be protected, the battery must be cushioned against impact, and it must be removed from any equipment prior to transport.
- **Disposal** - Damaged, defective, or end-of-life lithium-ion batteries must be disposed of properly and may never be placed in standard trash or recycling containers. Batteries may be taken to an approved off-campus battery recycling or collection facility or deposited in the designated gray metal battery collection bin located between Platt and South Dorm. The collection bin, which resembles a postal drop box, is provided to support the disposal of lithium-ion batteries. Facilities & Maintenance will periodically inspect the collection bin and ensure all collected batteries are disposed of in accordance with applicable safety and environmental regulations.
- **Reporting** - Students must report any damaged or unsafe Li-ion battery directly to the F&M office by submitting a Work Order. F&M will assess the hazard and notify the Office of Residential Life if there is an impact on the residential community. In any situation involving smoke, heat, or an active fire hazard, contact Campus Safety immediately.

Roles and Responsibilities

- **Individual responsibilities:** Inspection before use, safe charging, reporting damaged batteries, and not modifying devices. If a battery is found to be damaged, defective, or otherwise compromised during inspection, it should not be stored indoors or placed back into service. Instead, it must be removed from use immediately and disposed of in accordance with the disposal procedures outlined in this document.
- **Campus departments:**
 - *Facilities & Maintenance (F&M)* – Partners with the students for safe disposal.
 - *Campus Safety* – first responder contact, evacuation coordination.

- *Supervisors/faculty* – ensuring labs or classrooms follow safe battery practices.
- **Vendors/contractors:** All on-site vendors are required to comply with campus policies, including the Lithium-ion Battery Policy. Non-compliance may result in removal from the premises.

Emergency Procedures

If a lithium-ion battery begins to smoke or overheat, and it is safe to do so, carefully move it outdoors and place it in an open area away from buildings, doors, windows, combustible materials, and pedestrian traffic. If the battery catches fire, or if conditions are unsafe, do not attempt to move it. Immediately evacuate the area and contact Campus Safety at (909) 607-2000. Personal safety must always be the top priority, and only trained emergency personnel should respond to a battery fire.

If a battery exhibits any signs of malfunction, discontinue use immediately and follow the disposal procedures outlined in this document.

Fire Extinguisher

While there is currently no universally accepted fire extinguisher specifically designed to fully suppress a lithium-ion battery fire, Facilities & Maintenance will continue to monitor industry developments and evaluate emerging technologies as they become available. In the meantime, standard ABC fire extinguishers remain effective for extinguishing secondary fires involving surrounding combustible materials that may ignite as a result of a lithium-ion battery incident. However, if a battery fire occurs, prioritize your safety: evacuate immediately, close doors behind you to reduce the spread of fire, activate the fire alarm on your way out, and call Campus Safety.

Facilities & Maintenance will continue to monitor industry developments and evaluate emerging technologies as they become available.

Compliance and Accountability

Failure to follow the policy is considered a violation of our standards of conduct and may result in device removal or restricted use of facilities.

Additional Resources

<https://www.nfpa.org/downloadable-resources/safety-tip-sheets/lithium-ion-battery-safety-for-consumers-tip-sheet>

<https://bpb-us-w2.wpmucdn.com/wordpress.ucsc.edu/dist/7/150/files/2025/09/fire-osfm-lithium-ion-24-001.pdf>

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