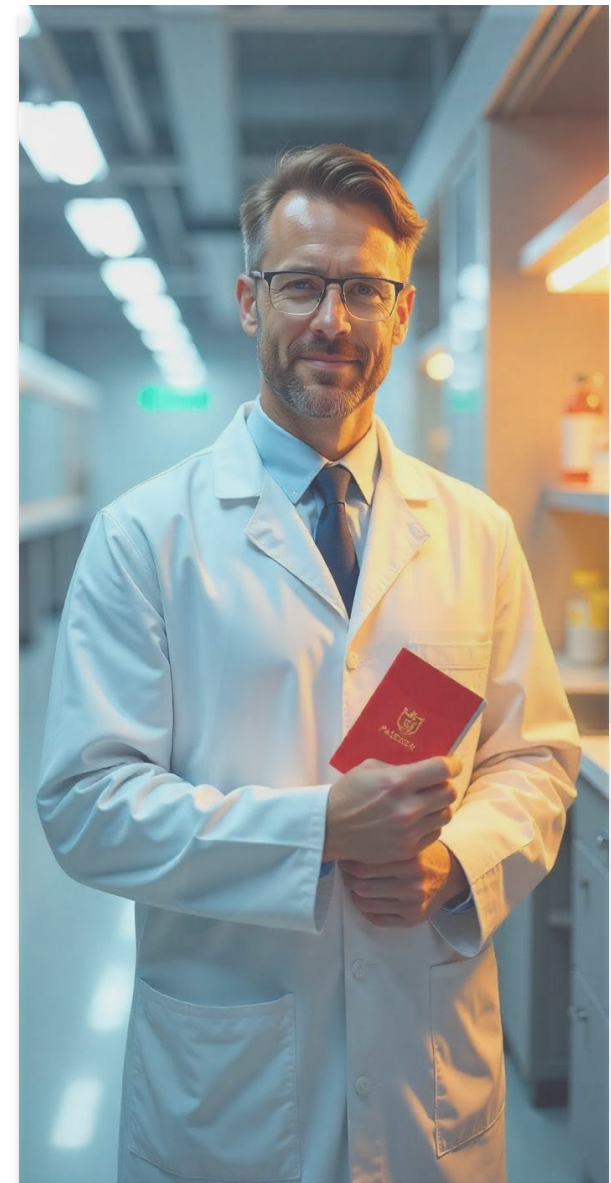


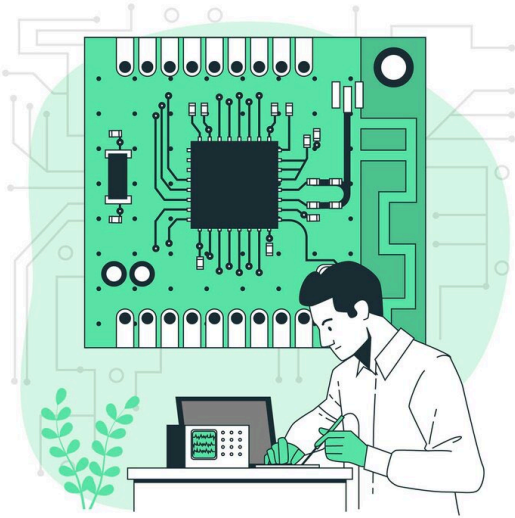
E-Learning

Access for the A10 laboratory

Version 1 - April 2025 - FRA



Welcome to the A10 Laboratory



- ✓ Complete this eLearning before getting lab access.
- ✓ ESD heel strap (Optional) & vests (Mandatory).
- ✓ Respect safety rules at all times.
- ✓ Prevent accidents and injuries.
- ✓ Protect expensive equipment.
- ✓ Ensure a safe and productive lab.

This training is your passport into the A10 Electronic laboratory.

It ensures you understand the environment, the equipment, and how to stay safe.

You'll be introduced to chemicals, high-voltage & low voltage devices, and sensitive electronic systems (ESD).

Entry Requirements

- ✓ Complete this course (mandatory)
- ✓ Wear ESD heel strap for (optional)
- ✓ ESD Vest (mandatory)
- ✓ Working on table wear ESD bracelet (mandatory)
- ✓ Carry your H55 badge to access the A10 Lab (mandatory)



Entry into the lab is regulated. These measures protect both the personnel and the equipment inside.

General Conduct Rules

- ✓ No smoking, no food, no drinks and no pets.
- ✓ Keep workspace tidy (5S).
- ✓ Use designated disposal bins.



Labs are controlled environments. Leaving clutter or food can introduce risks and contamination.

Special attention to:

- Pregnant and breastfeeding women should not access the Laboratory.
- People carrying medical implants such as pacemaker due to eventual EMI/EMC emission

Apply 5 S

- ✓ Seiri: **Sort**, clear, and declutter by removing unnecessary items
- ✓ Seiton: **Set** in order by creating a specific location for everything
- ✓ Seiso: **Shine** by cleaning and inspecting the workplace
- ✓ Seiketsu: **Standardize** by establishing best practices and making rules
- ✓ Shitsuke: **Sustain** by making 5S part of daily work



Physical Workspace Layout



- ✓ No trailing cables.
- ✓ Keep cables off the floor
- ✓ Clear exits and equipment paths.
- ✓ Keep liquids away from electronics.
- ✓ Use the dedicated & assigned table*

Prevent trips, spills, and tangled wires.

*Refer to the A10 Lab focal point: Carmine Arcudi (carmine.arcudi@h55.ch)

Chemical Handling Basics



- ✓ Read Safety data sheet for every substance.
- ✓ Use appropriate containers.
- ✓ Never sniff or taste chemicals.
- ✓ In case of spill:
 - ✓ Alert your supervisor.
 - ✓ Use proper spill kits or absorbent sheets.
 - ✓ Evacuate if necessary.

Understand what you're working with. Many substances are toxic, flammable, or reactive.

Refer to dedicated OSH training

PPE Essentials

- ✓ Gloves & goggles as required
 - ✓ ESD vest (*Mandatory*)
 - ✓ ESD hell strap (*optional*)
 - ✓ Inform & Change equipment if damaged.
 - ✓ Fit PPE* to your body.
-
- ✓ Use splash-proof goggles.
 - ✓ Use shields when heating or cutting.
 - ✓ Rinse eyes immediately if exposed.
 - ✓ Use force air ventilation while soldering (or equivalent) with exhaust & filtering system



PPE saves lives. Whether it's chemical burns or ESD damage, [this gear is your barrier.](#)

*Refer to the PPE (*Personal Protection Equipment*) catalogue [here](#)

Working with Electricity

- ✓ Assume all equipment is live.
- ✓ Disconnect before modifying circuits.
- ✓ Don't work alone with high-voltage.

Electricity is invisible but deadly. Treat all wires as live until verified.

Refer to the dedicated low voltage training

For high voltage:

- ✓ Keep unit on top of insulated mats.
- ✓ Use insulated tools.
- ✓ Visitors must keep hands behind your back.

These habits prevent your body from becoming a conductor during faults.

Refer to the dedicated high voltage training



ESD Awareness

- ✓ Use ESD mats, bracelets, vests, and hell strap.
- ✓ Touch grounded surfaces often.
- ✓ Store boards in ESD-safe bags.
- ✓ Test yourself at the entrance



Electrostatic Discharge (ESD) is silent but destructive. Sensitive PCBs can be ruined by a static spark.

E.S.D. Mnemonic

- **E**quipment grounded.
- **S**trap yourself.
- **D**on't touch pins.

Handling Uncased PCBs

- ✓ Always de-energize before touching.
- ✓ Use available tools within the Lab (do not bring yours).
- ✓ Avoid metal objects.
- ✓ Avoid passing a board person to person (due to ESD)

PCBs under power can burn or short-circuit easily.



Labeling Equipment

- ✓ Label all power cables.
- ✓ Indicate in-use/tested.
- ✓ Include safety warnings.

Clear labels reduce confusion and accidents—especially in shared labs



Calibrated & Sensitive Devices

- ✓ Be sure you only use calibrated* devices
- ✓ Put aside uncalibrated* device
- ✓ Avoid dropping or bumping.
- ✓ Log any damage immediately.
- ✓ Do not take any tools out of the lab without informing the referent*



Precision tools are expensive and easily damaged. Handle them like fine instruments.

***Refer to the A10 Lab focal point: Carmine Arcudi (carmine.arcudi@h55.ch)**

Tools



✓ Voltmeters

- ✓ Select proper range.
- ✓ Test probes for damage.
- ✓ Disconnect after use.

✓ Oscilloscopes & Logic Analyzers

- ✓ Use ground clips.
- ✓ Don't exceed rated voltage & current.
- ✓ Handle probes with care.

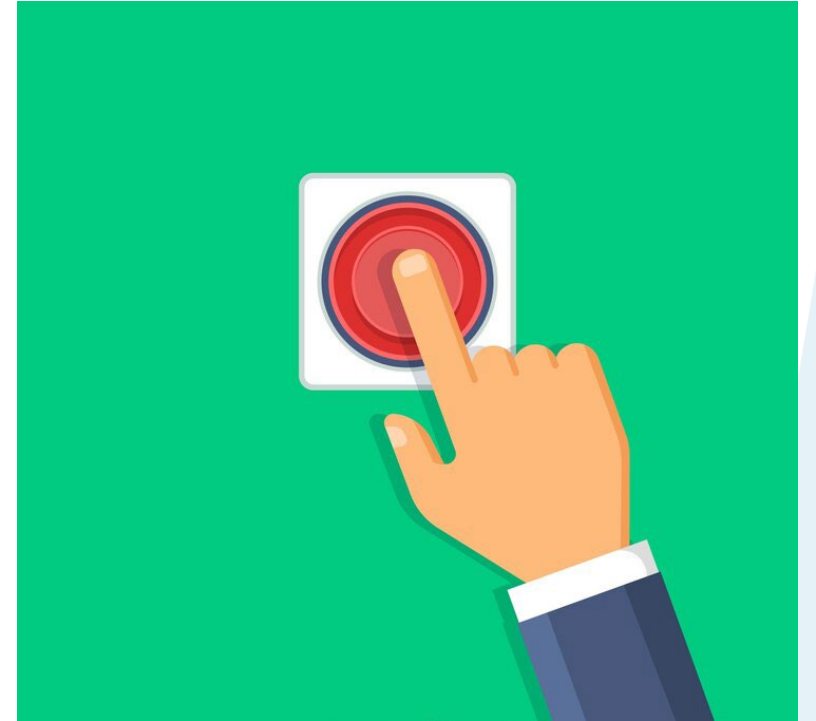
✓ Using Power Supplies

- ✓ Double-check voltage & polarity.
- ✓ Set current limits.
- ✓ Use remote cutoff if available.

Emergency Shutoff

- ✓ Know how to kill power to the bench.
- ✓ Report malfunctions immediately.
- ✓ Use only in real emergencies.

This is your "panic button" — make sure you know where it is.



Fire Safety, First Aid & Incident Reporting



- ✓ Know extinguisher type (CO₂ for electronics).
- ✓ Never use water.
- ✓ Sound alarm first.

Most lab fires are electrical—CO₂ or dry powder only.

Refer to dedicated fire training

- ✓ Minor injuries still get logged.
- ✓ Use proper forms.
- ✓ Get help, even for small cuts.

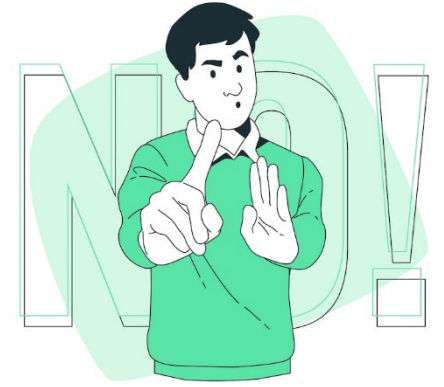
Unreported injuries can get infected or turn into safety liabilities.

How to report link [there](#)



S.A.F.E

- ✓ Right to say No
- ✓ Recognizing a Serious and Imminent Danger there
- ✓ Know your focal point for any questions > **Carmine Arcudi**
(carmine.arcudi@h55.ch)



If you witness non appropriate behavior that create risk, you have the duty to say no.
Each person is responsible for themselves but also for others.

Emergency Equipment Locations

- ✓ Know where eye-wash stations are.
- ✓ Identify fire extinguishers.
- ✓ Memorize emergency exits.

Time matters in emergencies. Don't wait until it's too late—learn locations and functions now.

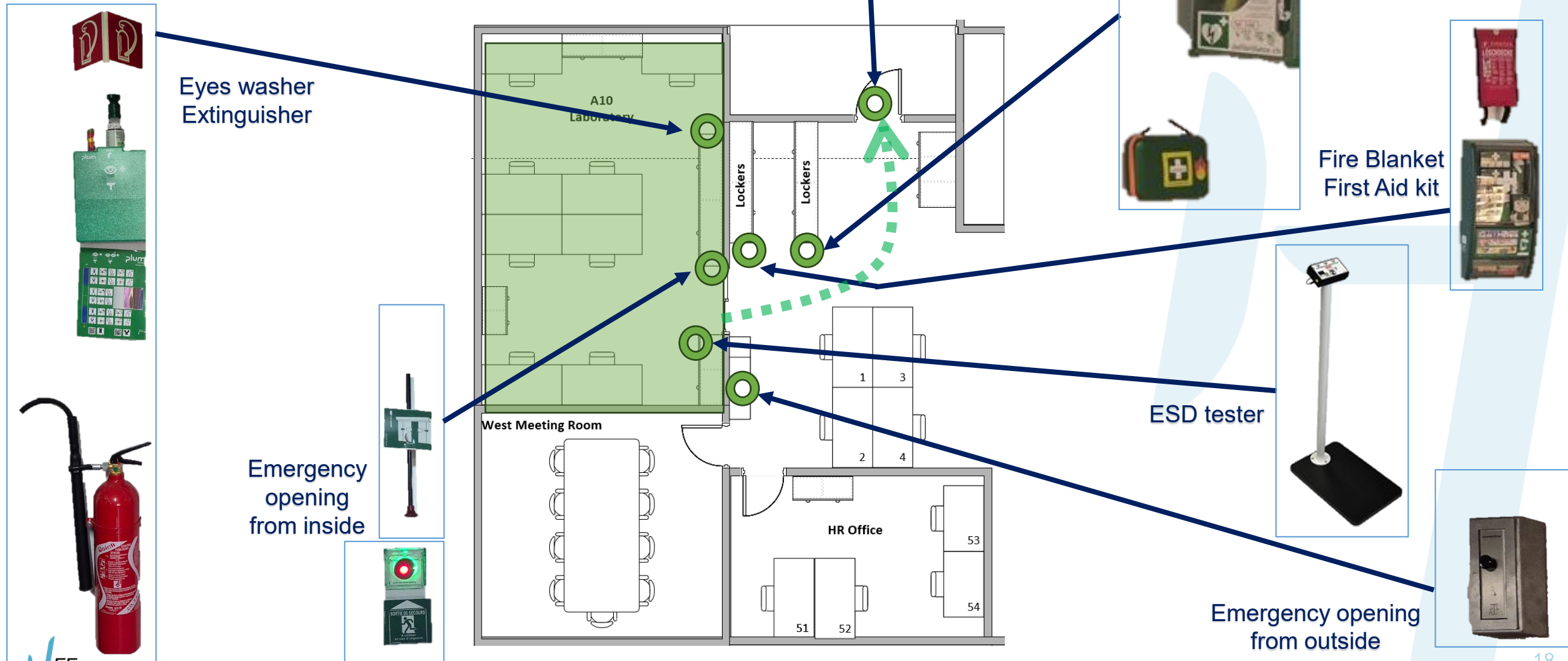
Evacuation Plan

- ✓ Follow posted routes.
- ✓ Take nothing with you.
- ✓ Wait at the rally point.

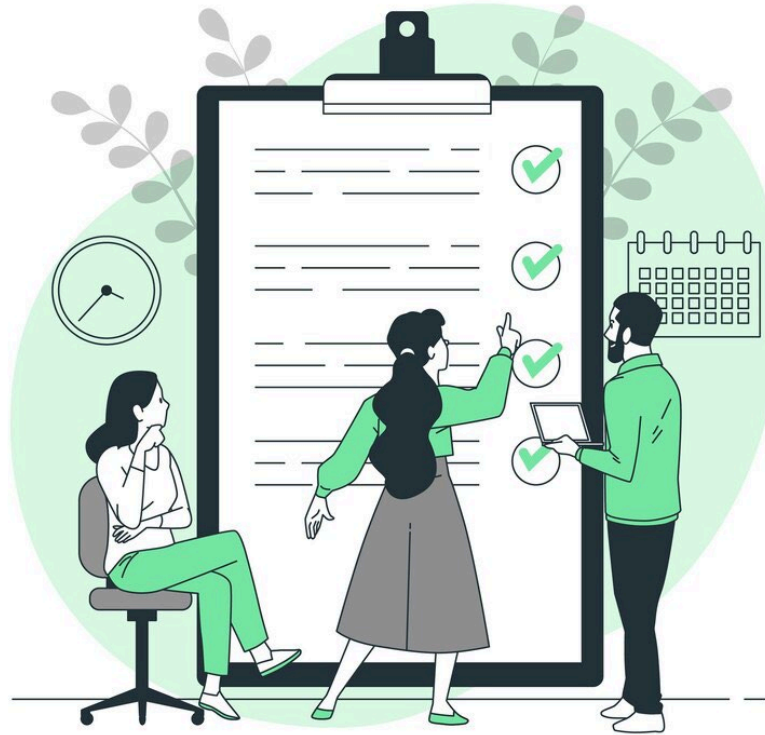


Know the A10 Lab layout

- ✓ Be familiar with the A10 Lab layout



Safety Quiz



- ✓ Move to the next section of the E-learning for:
 - ✓ Multiple choice & scenarios.
 - ✓ 100% pass required.
 - ✓ Repeat if needed.

This ensures you're ready to enter the lab confidently.

Congratulations! 🎉

- ✓ You are A10 lab-ready!
- ✓ Ask to get the access (training compliance will be check)
- ✓ Always wear ESD gear.

You've earned it! Now step in confidently and work smart.

