

Safety Guide for Machinery Engineering

(機械工作安全講習)

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ISSP Workshop

(物性研究所工作室)

SAFETY FIRST

- Safety receives the highest priority
- Safety comes before any other tasks
- SAFETY FIRST means the operating efficiency is the second
- Safety is the base of efficiency, and there is no contradiction between safety and efficiency.
- The first step for safety is to keep work space tidy

***For users of researchers' workshop**

In the researchers' workshop, there are lathes, milling machines, band saw machines, foot shearing machines, bending machines, drilling machines, welding machines and so on. When using these, observe the following rules. Also, please read the instructions put up in and in front of the workshop.

***Rules**

1. Record the usage in the user's notebook.
2. When working, pay enough attention to avoid danger.
3. When you use the workshop for the first time, or if you are not very confident about the usage of the machines, consult with the representatives before starting.
4. When finished, clean up the used machine tools and around, and return them to the original places.
5. When the machines or tools are broken, instantly report it to the representatives. The broken machine tools and tools might cause accident. When the broken machines or tools need repair or re-purchase, it will be paid for by the lab.

***Outside hours usage**

1. When you use the researchers' workshop before 9:00 a.m. and after 5:00 p.m., enter the room by using your ID card. (Swipe your ID card which was authorized for outside hours usage through the card reader when entering or leaving).
2. Use the room with more than one person. Be careful not to invite any accidents
3. Beginners are recommended to use the room under full technical supervision of representative of the workshop, teachers or seniors with full knowledge of the machine management.
4. Record the usage in a user's notebook when entering and leaving.

Dos and Don'ts

- 1. Beginners should work under supervision of a representative.**
- 2. When you use something for the first time, you should do it with partner(s).**
- 3. You should clean up used machines and tools and return to the original places.**
- 4. Work safety first.**
- 5. When you are not in a perfect condition (if you have hangover, sleeplessness, or cold), do not use the machines or tools.**
- 6. When you feel sick during operation, stop working at once and leave the room to have a break, or postpone it to the next day. Never continue unless you feel alright. Do not forget to turn off the power of all machines.**
- 7. Careless attitude can cause serious accident. Always be aware of any possible dangers.**
- 8. Machine tools are electrically-driven and should be treated as wild beasts.**
- 9. Do things appropriately, absence of mind and inattention is the source of mistakes.**
- 10. Wear protective devices correctly.**
- 11. Read the " Safety and Health Guide" of Tokyo University Campus.**

Safe Operation

***Situations to invite injury**

Dangerous actions of operators (when you are not used to operation)

a) Dangerous operations

- Using machines and tools out of order as is.
- Cleaning and lubricating machines while running.
- Neglecting to wear protective equipments or wearing them incorrectly

b) Dangerous behaviors

- Operating at a wrong position and/or wrong places
- Jumping on or off from something either high or low at the workshop
- Incorrect remarks and instruction to your partners

c) Dangerous procedures

- Failing to pace with each other in a co-operative work.
- Failing to check your preparation before starting.

Why the dangerous actions happen?

a) Because of ignorance of correct way of operation.

b) Because of learning wrong way of operation

c) Because of your self-assumption

***Examples of dangerous actions**

The accidents caused by machines are still happening these days.

People get caught in turning machines. If a part of your body or clothing should touch the drive, they can be caught up dangerously.

When machine is running, never get close to it.

When you want to do something on the machine different from the machine's original usage, such as putting on and off any tools, cleaning, lubricating and so on, first power it down and then start working.