

Flashlight Assembly

This task involves very fine motor control and self-checking quality control.



Materials

- 24 silver sheaths (A)
- 48 batteries (B)
- 24 front sections (C)
- 24 clip sections (D)
- 24 metal rings (E)
- 24 plastic sleeves (F)
- 1 large 6-compartment organizer
- 1 large single-compartment bin
- 1 red storage bin (not shown)

Setup

Place the 6-compartment organizer on the table to the left and open it. Remove the snap box containing the metal rings (E), open it, and place it in front of the organizer. Place the large single-compartment bin to the right of the organizer.

Procedure

- Take a front section (C) and hold it with the threaded end facing up.
- Take a silver sheath (A) and insert it into the front section, bulb end first.
- Take a battery (B) and insert it upside down (positive end down) into the sheath.
- Repeat the previous step with another battery.
- Take a metal ring (E) from the snap box, slip it over the battery and sheath, and position it on the front section.
- Take a clip section (D) and slip it over the sheath with the batteries. Screw the clip section and front section together.
- Press the pocket clip on the clip section to test the flashlight. If the light comes on, continue. (See **Note** on the reverse side if the flashlight does not work.)
- Take a plastic sleeve (F) and slide it over the flashlight from bottom to top so it slips under the pocket clip.
- Place the assembled flashlight in the single-compartment bin at the right.
- Repeat the previous steps to assemble the remaining 23 flashlights.

Norms:

Per unit – 29 seconds
Per task (24 units) –
11 minutes, 45 seconds

Quality Criteria

Each flashlight must contain parts (A) through (F) and must light when the clip is pressed (before the plastic sleeve is attached). Completed flashlights must be placed in the single-compartment bin.

Note

Before beginning the task, determine what the worker will do if the flashlight does not light. Options include:

- Have the worker put the flashlight aside to be counted as an error. This option is appropriate if you know all the batteries are functioning.
- Have the worker disassemble the flashlight to check for errors. Then reassemble being sure both batteries are correctly inserted.
- Replace the batteries with new batteries. (Have a supply of batteries on hand.) If this option is used, do not use the stated norms which assume working batteries.

Batteries are NOT to be placed in the mouth. Do NOT use this task with a worker who will misuse the batteries.

Flashlight Disassembly

Setup

Arrange the materials as in the assembly task.

Procedure

- Take a flashlight from the single-compartment bin.
- Slide off the plastic sleeve. Place it in the correct organizer compartment.
- Unscrew the clip section, slide it off, and place it in the correct compartment.
- Place the metal ring in the snap box.
- Place the front section in the correct compartment.
- Dump out the batteries (if necessary, tap the sheath on the table to remove the second battery).
- Place the batteries horizontally in the correct compartment. (Batteries must be placed so the ends do not touch.)
- Repeat the previous steps to disassemble the remaining 23 flashlights.

Norms:

Per unit – 20 seconds
Per task (24 units) – 8 minutes

Quality Criteria

The units must be completely disassembled with all the items stored correctly.