Chemoport Injection Training Simulator

USER GUIDE

BT Inc.
BEST TECHNOLOGY & BETTER TOMORROW
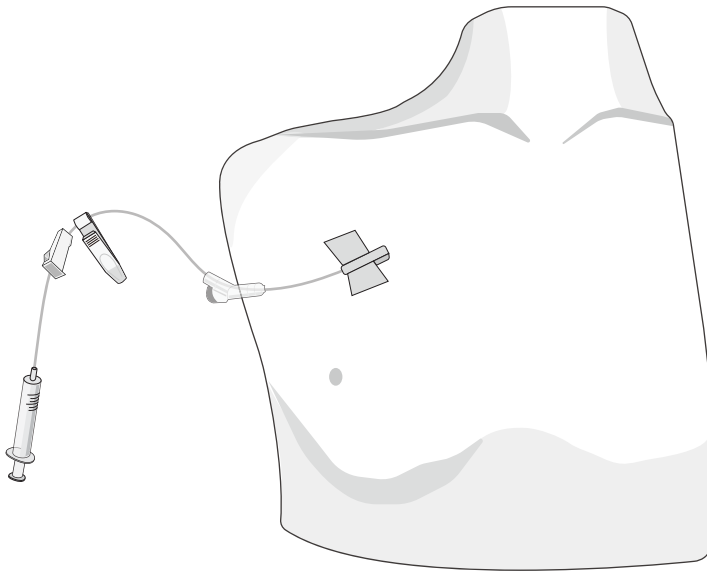
Product Information

Product Name	Chemoport Injection Training Simulator
Model Name	BT-CSIP
Manufacturer	BT Inc.
Country of Origin	Republic of Korea

CE FC

(Contain FCC ID : 2APB6-BOT-NLE521)

Product Specification

Dimensions	280 X 245 X 140mm
Weight	1.3 kg
Power Converter	Input AC100-240V~, 50/60Hz, 0.4A Output DC 12V, 1.5A
Battery	5EA of LR6(AA, 1.5V)

Customer Service

|	
Website	www.btinc.co.kr
Address	A-313, Samsong Techno-valley, 140, Tongil-ro Deogyang-Gu, Goyang-Si, Gyeonggi-do, 10594, Republic of Korea
Telephone	+82-2-2038-2903
E-mail	bt@btinc.co.kr

Cautions for battery disposal

※ Please follow the regulations of corresponding area of the disposal
 of used batteries

Cautions

Please read it carefully to ensure correct usage and user's safety through understanding of the product.

① Use only components provided or approved by BT Inc.

② Do not use the product for other purposes described in this manual.

③ If you disassemble or modify the product without any permission by BT Inc, you cannot get
    the warranty. Also, making imitated or altered products for commercial purposes are prohibited by law.

④ During the usage, please contact us after any electricity power off when the product is overheated
    or smelled something burning.

⑤ Keep the product away form water or moisture. If the product gets wet, do not turn it on.

⑥ Do not use the product near strong magnetic fields or high voltage power lines.
    The product might malfunction due to the electromagnetic waves.

⑦ Do not use the product under a weather of lightning. It can cause the product malfunction and
    increases the risk of electric shock.

⑧ Do not use the product with temperatures below 0°C or above 40°C.
    (Operation temperature : 0°C ~ 40°C, Storage temperature : -10°C ~ 50°C)

⑨ Do not keep the product near hot places such as heaters. Deterioration of product or internal damage might occur.

⑩ Never clean the product with chemical substances such as solvent, benzene or thinner, as these may
    Cause ignition or cause the surface deterioration.

⑪ BT Inc. can change or adjust the product specification without any notice in order to improve the product.

Components
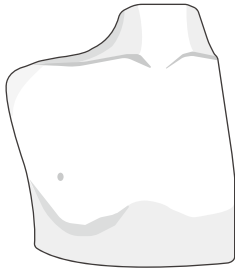
Torso Manikin
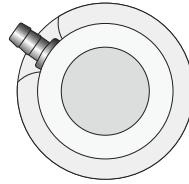
Simulated Ports - 5ea
(1ea embedded in the torso)

Drain tube

Drain bottle

Power Adapter

* etc. - Storage Case, Simulated Blood
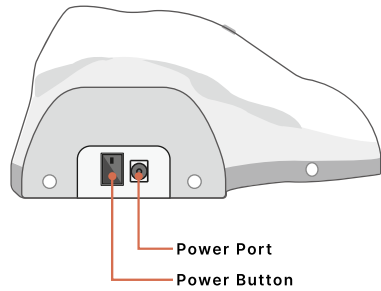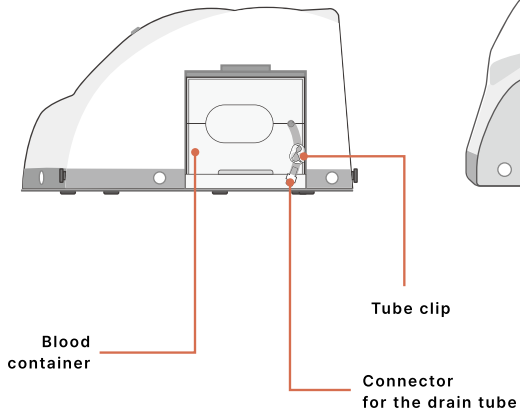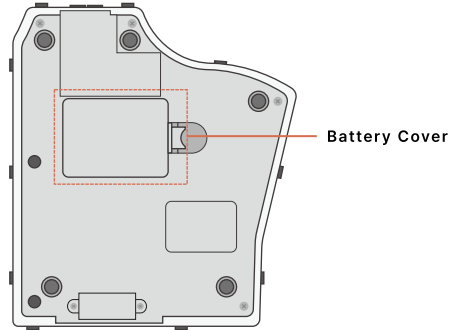
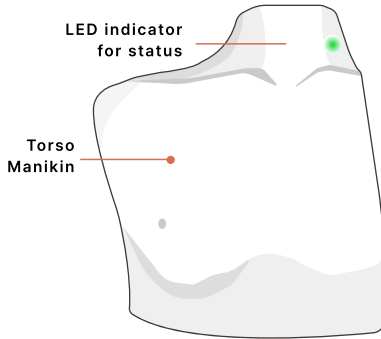| Consumables |
|---|
| • Chest Skin
• Simulated Ports |

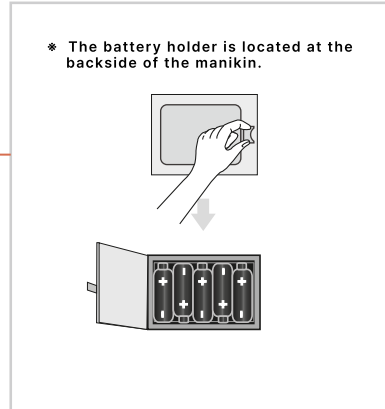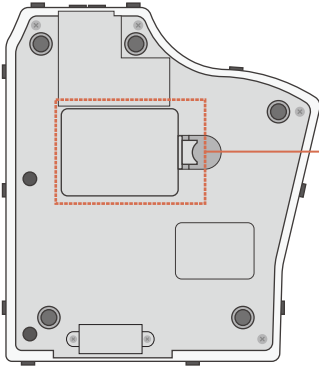| Recommended Clinical Supply Sizes	
Chemoport Needle	19G~22G

- The following clinical supply sizes are recommended for use with BT-CSIP model.

- Other sizes may cause damage to the products.

- Lifetime of the consumables may differ depending on the skill level of the users.

Features

LED indicator
for status

Torso
Manikin

Battery Cover

Blood
container

Tube clip

Connector
for the drain tube

Power Port

Power Button

Power Connections

(1) Battery power supply

※ The battery holder is located at the backside of the manikin.

① Open the battery cover at the backside of the manikin by pressing the stoppers with both index fingers.
② Insert 5 batteries into the battery holder with correct polarities.
③ Use LR6(AA-type, 1.5V) standard batteries only.

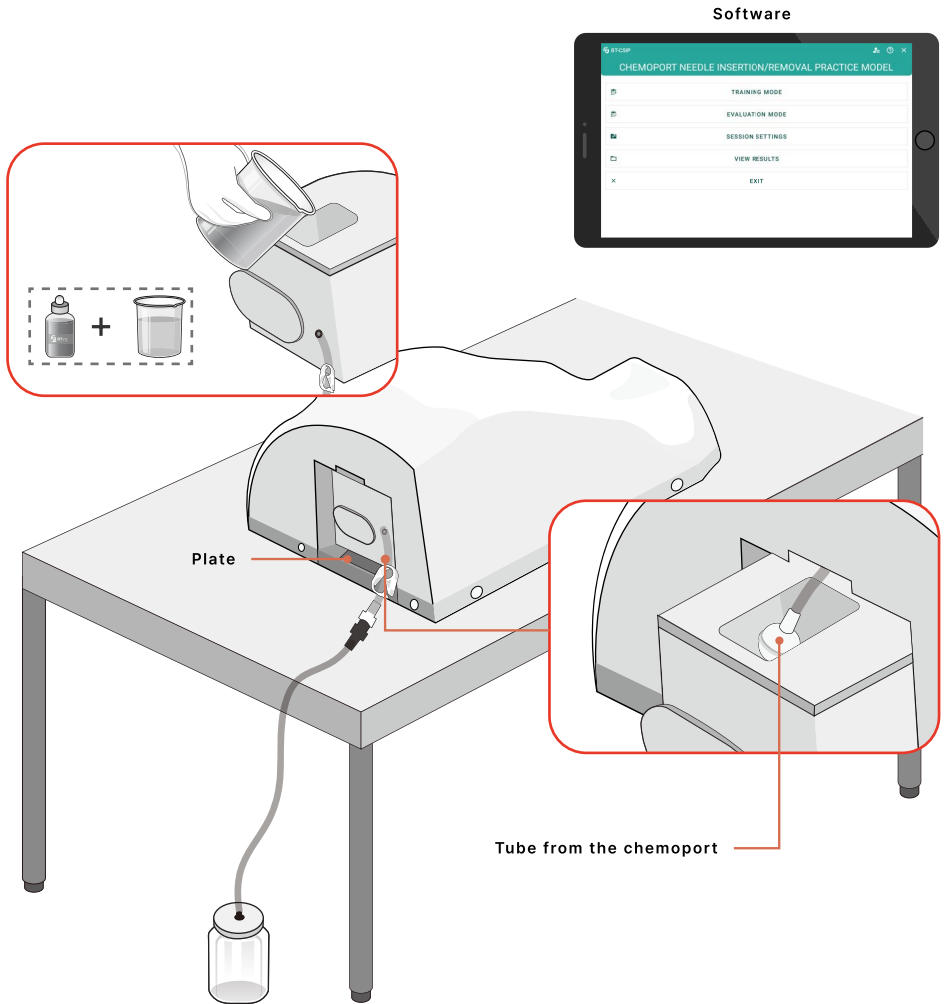※ Make sure to remove the blood container before replacing the battery.

(2) External AC power supply
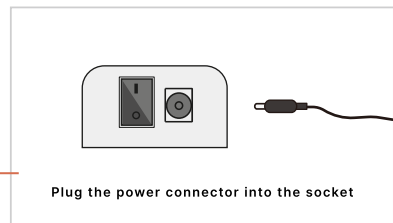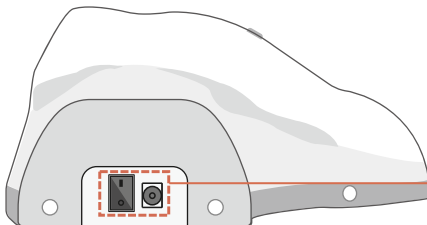
Plug the power connector into the socket

※ Use only the power converter supplied by manufacturer.

Installation

Software

CHEMOPORT NEEDLE INSERTION/REMOVAL PRACTICE MODEL

TRAINING MODE

EVALUATION MODE

SESSION SETTINGS

VIEW RESULTS

EXIT

Plate

Tube from the chemoport

① Prepare the manikin.

② Press the plate of the blood container to detach it from the manikin.

③ Open the tube clip on the connector of the draining tube attached to the blood container.

④ Connect the connectors between the draining tube and the blood container.

⑤ Connect the drain tube to the drain bottle.

⑥ Add 100cc of water and 3-4 drops of simulated blood to the blood container.

⑦ Insert the tube from the chemo port into the blood container and assembly it to the manikin.

⑧ Turn on the power of the manikin, connect to the software and start the training.
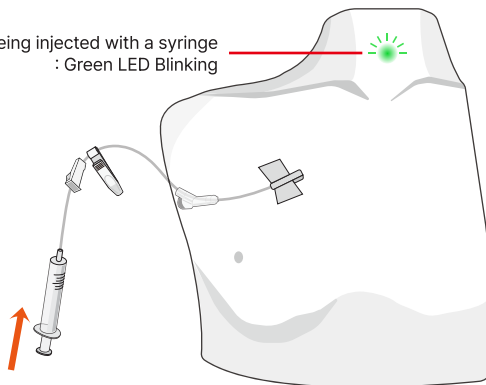
Functions

(1) Needle insertion - LED ON

When the needle is inserted : Green LED ON
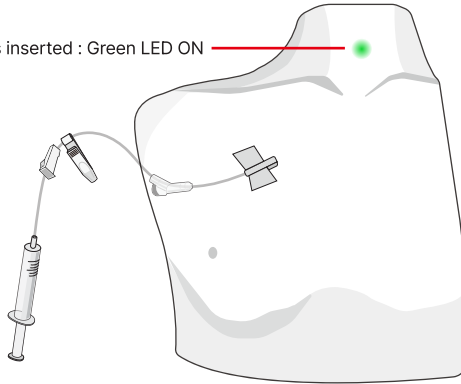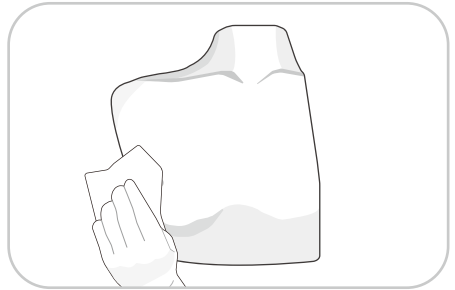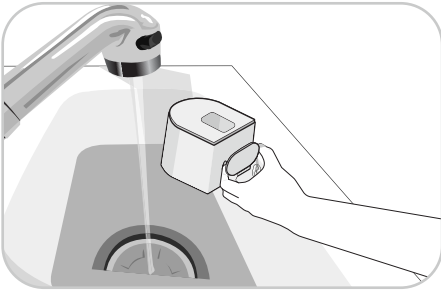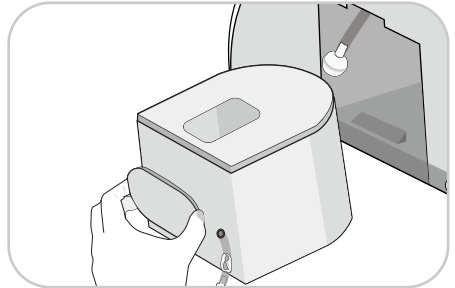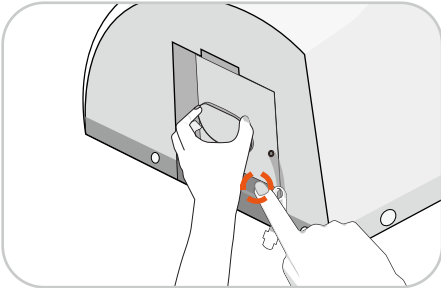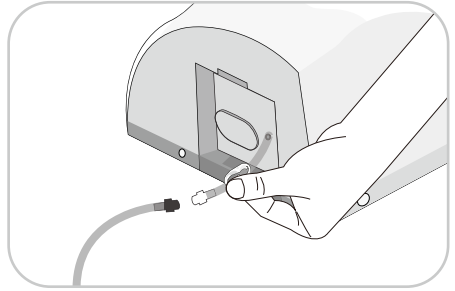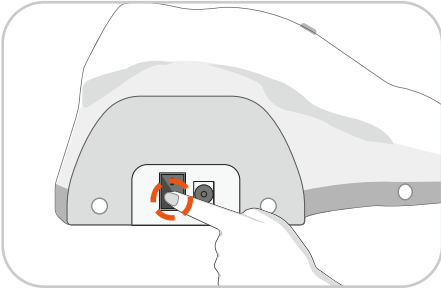
(2) Flushing - LED Blinking

When the fluid is being injected with a syringe
: Green LED Blinking

⁜ It is integrated with software, allowing feedback to be reviewed through the software as well.

Cleaning and Storage

(1) Storage and Maintenance

- Turn the manikin off after the training.
- Close the tube clip on the connector of the drain tube and disconnect the tube.
- Press the plate of the blood container and detach it from the manikin.
- Wash the blood container and drain bottle under running water.
- Dry the container with a clean, dry cloth and reattach it to the manikin.
- Wipe manikin with an alcohol swab or a soft cloth dampened with ethanol, then store it in the designated storage location.

(2) How to replace skin and simulated port
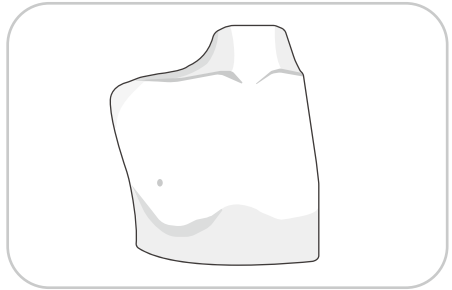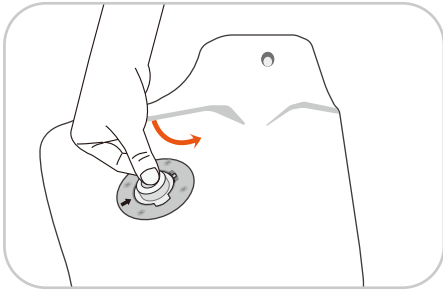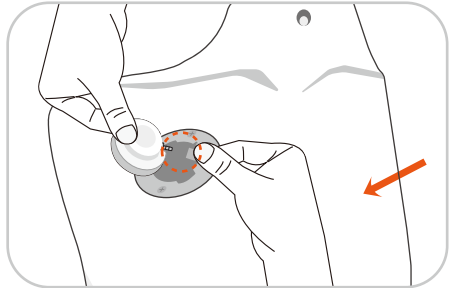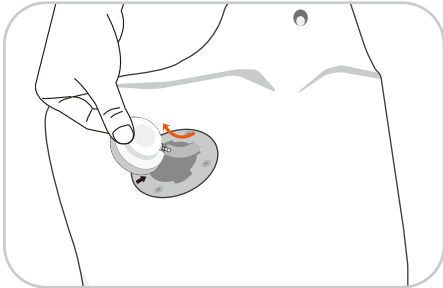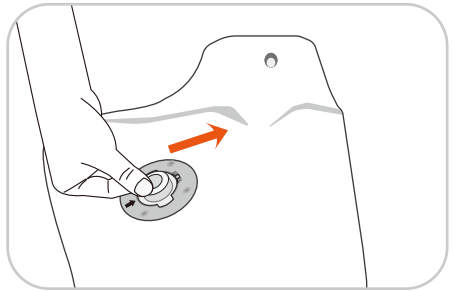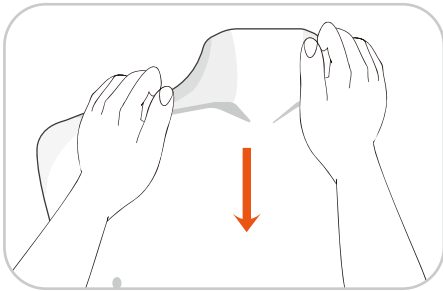
- Remove the skin from the manikin.
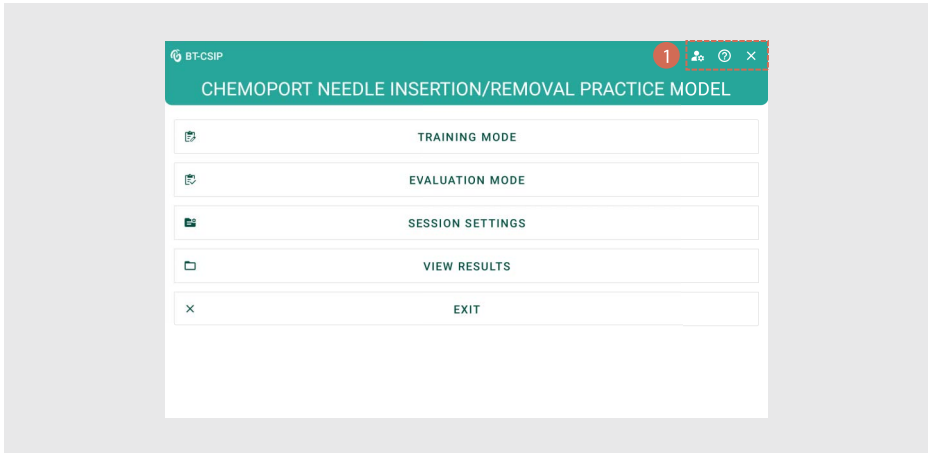- Push the simulated port in the direction of the arrow to detach it, then lift it out.
- Disconnect the port from the tube.
- Connect the new port to the tube.
- Reassemble the parts in reverse order.

※ The chest skin and port are consumable items.

| Software

1-1. Home

- The simulator features a Training Mode for repeated practice of session steps and an Evaluation Mode that integrates and saves trainees' results through practice assessments.

- The sessions used for training or evaluation are not only pre-installed but can also be edited or newly created to suit specific curriculums.

- The training model is equipped with sensors that detect needle insertion, flushing, and removal actions and data is transmitted via Bluetooth communication.

- Practice can also be conducted in Offline Mode, even without the manikin.

① Icon

Icon	Description	Icon	Description
![admin]	Administrator	![help]	User manual
![exit]	Exit		

Administrator Account Settings

2-1. Registering an Administrator Password
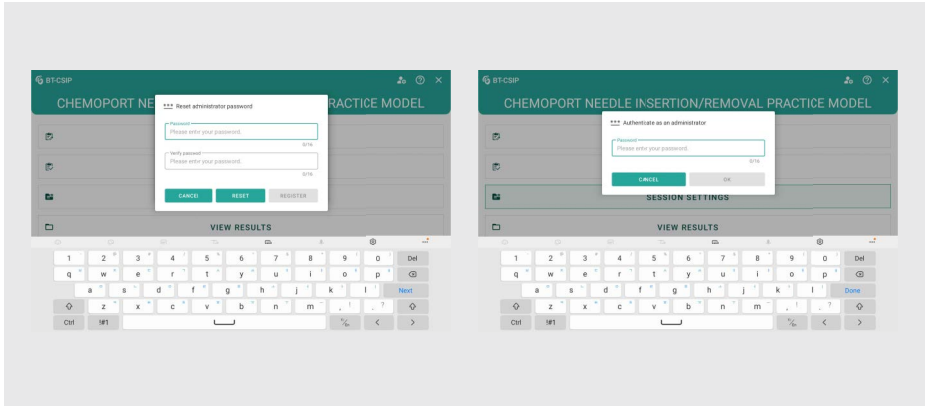
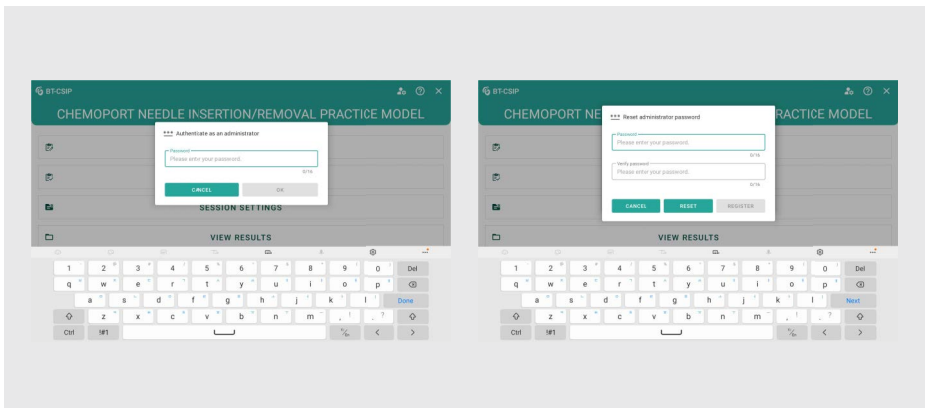- Only administrators have the authority to modify sessions or manage evaluation results.

- By using the registered administrator password, administrators can be authenticated when accessing session settings and evaluation results.

2-2. Administrator Account Settings

- On the administrator account settings page, you can choose whether to enable the administrator mode.

- If the administrator mode is not enabled, users without permission can also access session settings and evaluation results.

- The administrator password can be changed. If the password is lost, you can contact BT to receive a temporary password.

Session Settings

3-1. Creating and Editing Sessions
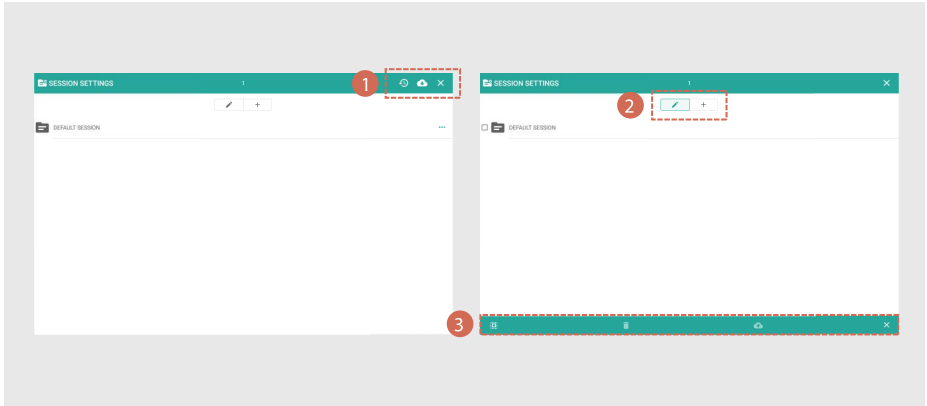
- A session is a collection of sequential practice steps that represent the procedures of a specific skill.

- Sessions can be newly created or existing pre-installed sessions can be modified for use.

- To delete or rearrange sessions, select the Edit icon.

① Icon

Icon	Description	Icon	Description
	Initialize Session		Import Session
	Exit		

② Icon

Icon	Description	Icon	Description
	Edit Session	+	Add Session

③ Icon

Icon	Description	Icon	Description
	Select all		Deselect
	Delete		Export Session
	Exit		

3-2. Copying a Session
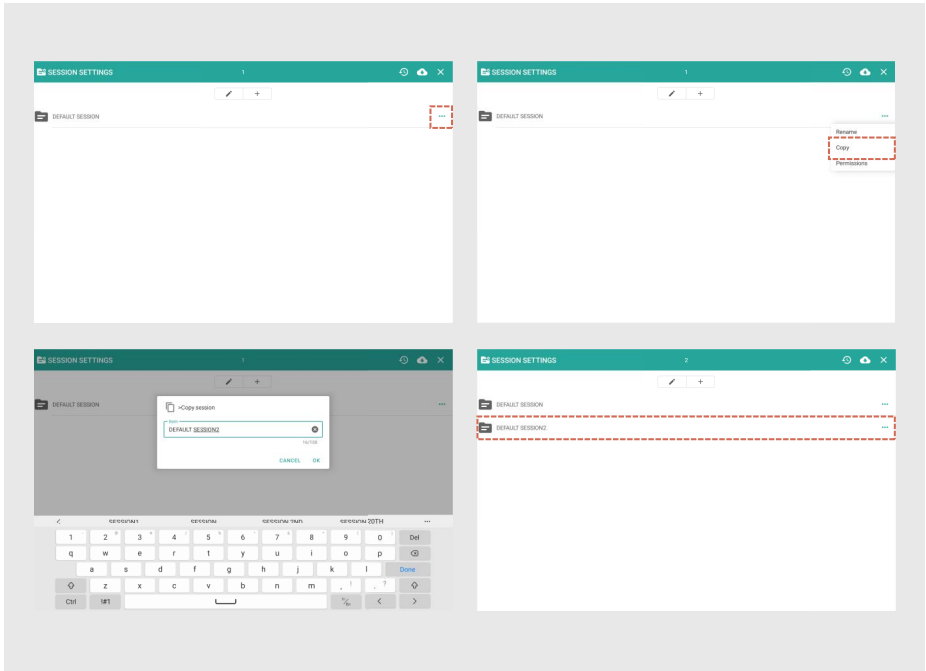
- The easiest way to create a new session is to copy an existing session and modify it to fit your purpose.

- Select the context menu of the session you want to copy, rename it, and use it accordingly.

3-3. Setting a permission for session
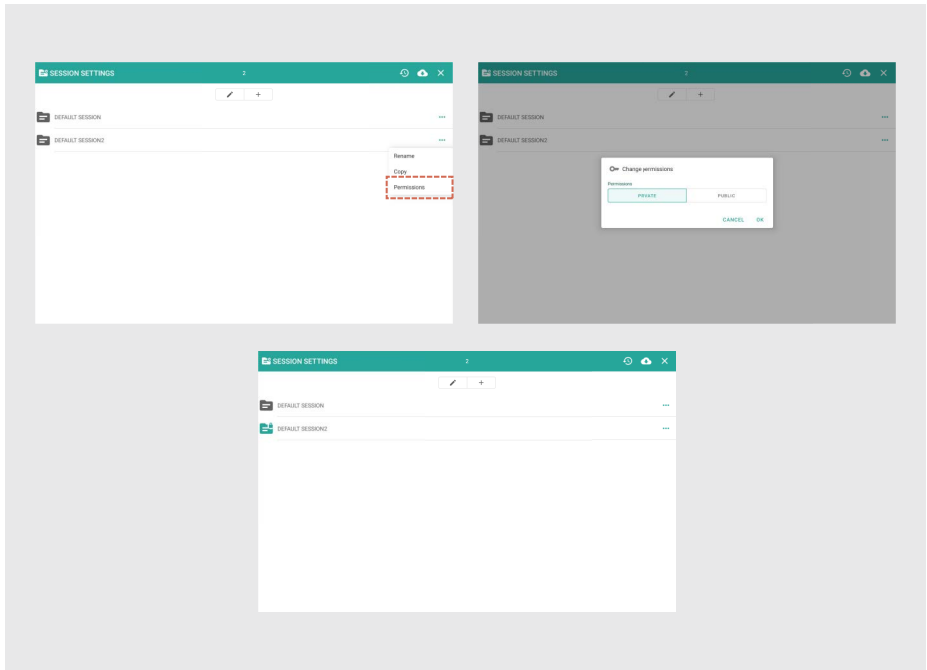
- You can choose whether to make a created session public or private.
- If the session is set to private, it cannot be used in Training Mode and will only be available in Evaluation Mode.

3-4. Exporting Sessions
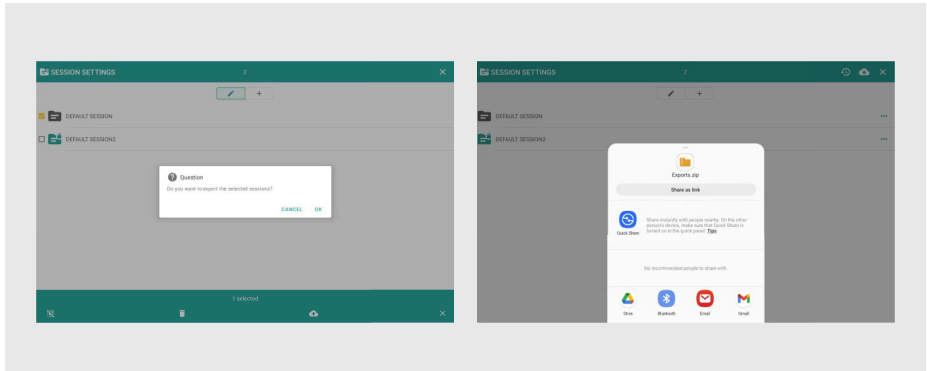
- Created sessions can be shared.

- In edit mode, select the session you want to share and click the export button.

- The session will be saved as one compressed file and can be sent to email or an app with data transfer functionality.

3-5. Importing Sessions
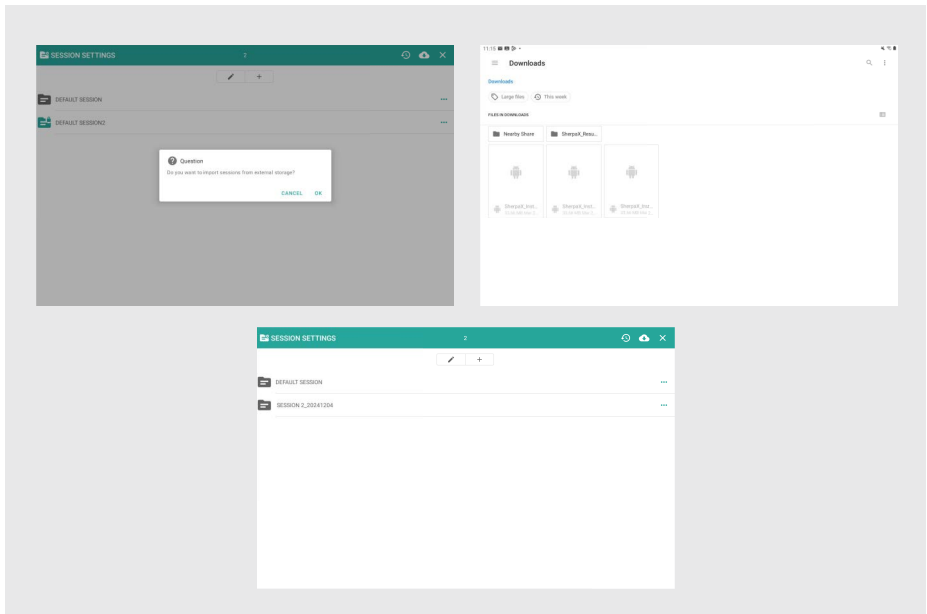
- Exported sessions can be added using the 'Import' function on the software.

- The session is saved in a compressed file, and large file sizes may take some time to transfer.

- If the session name is the same with an existing one, it will automatically be renamed and saved.

3-6. Creating Session Steps
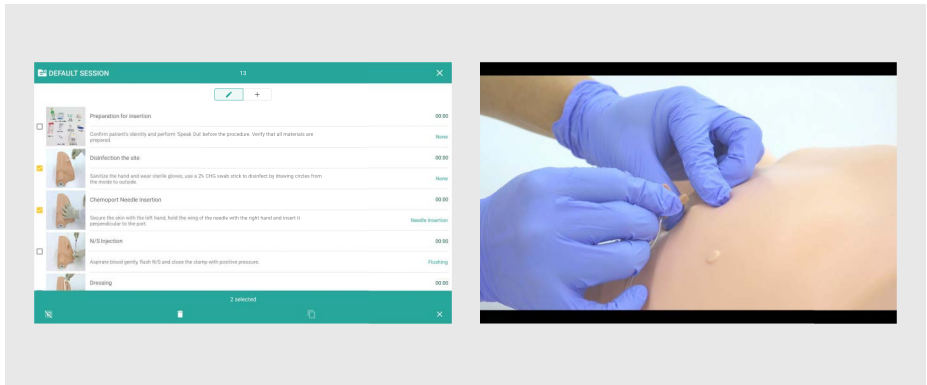
- Each step of a session consists of a title, description, image, video, and others representing each step.

- Select the Edit Mode to add, delete, or copy session steps.

- Use the drag-and-drop functionality in edit mode. To change the order of steps.

- Click the thumbnail image of a session step to play the associated video or view the original image.

3-7. Configuring Session Steps
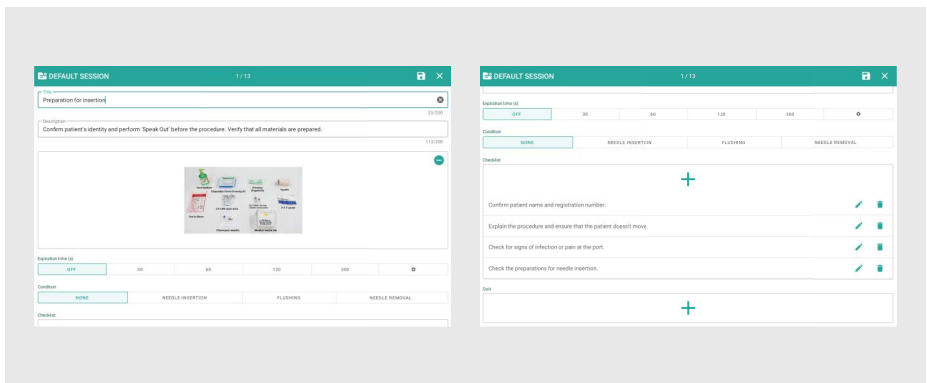
- Each step of a session consists of a title, description, image, video, and others representing each skill.

- To limit the practice time for each step, you can set a time limit, allowing the system to automatically move to the next step.

- Additionally, you can configure conditions to determine whether to proceed to the next step after performing actions such as needle insertion, infusion, or needle removal.

3-8. Adding Photos and Videos
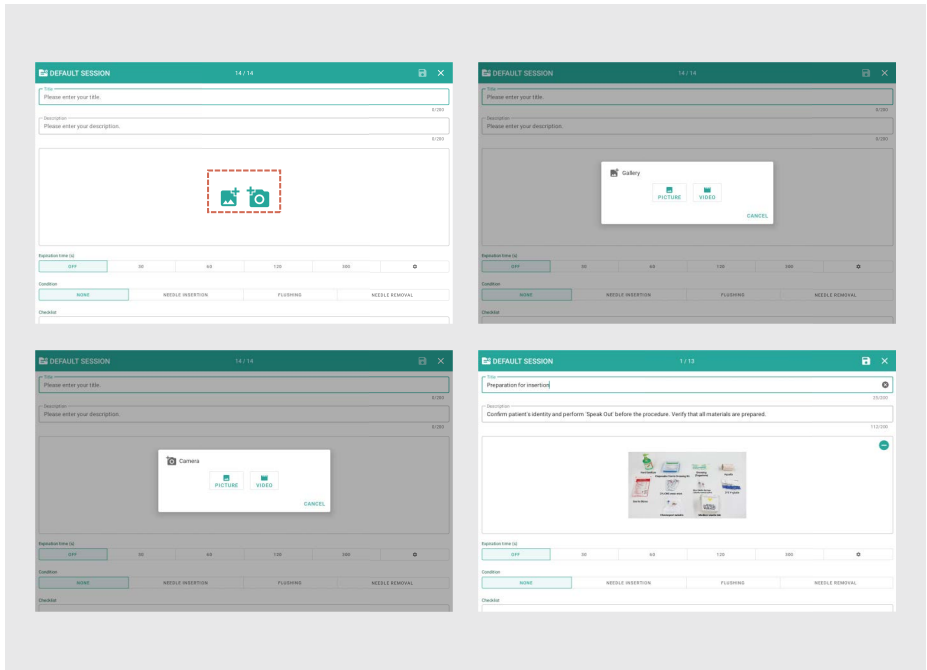
- Photos and videos can be added to create new training curriculums.
- You can either retrieve existing photos and videos from the gallery or use the camera mounted on the tablet to record practice videos and add them.
- It is recommended to use the tablet in landscape mode when taking practice photos and recording videos.

3-9. Creating a Checklist
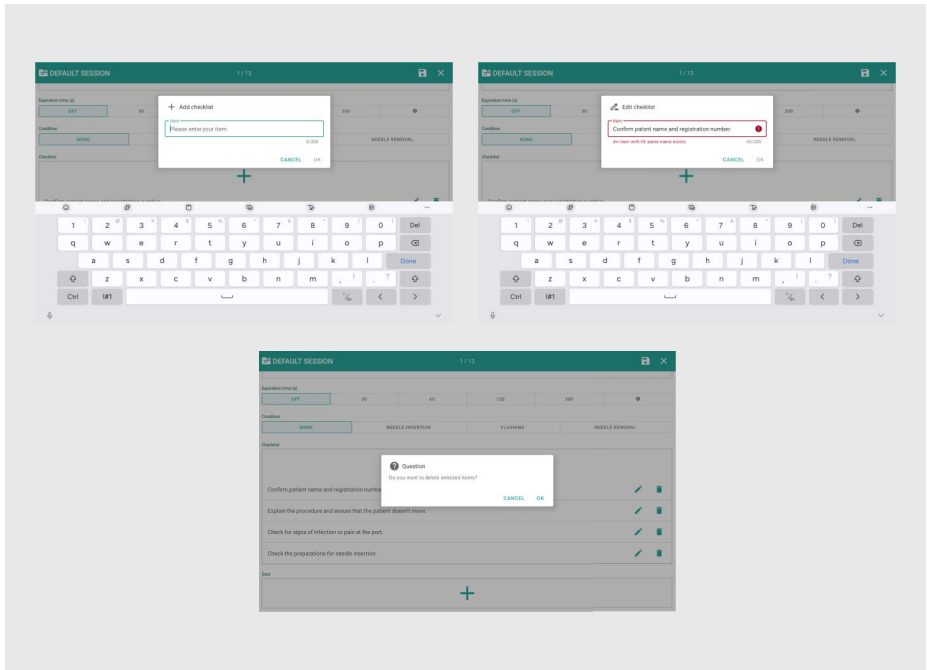
- Create a checklist to outline important aspects of each practice step and reflect the results.

- To delete or reorder the created checklist, you can use the drag-and-drop function.

3-10. **Creating a Quiz**
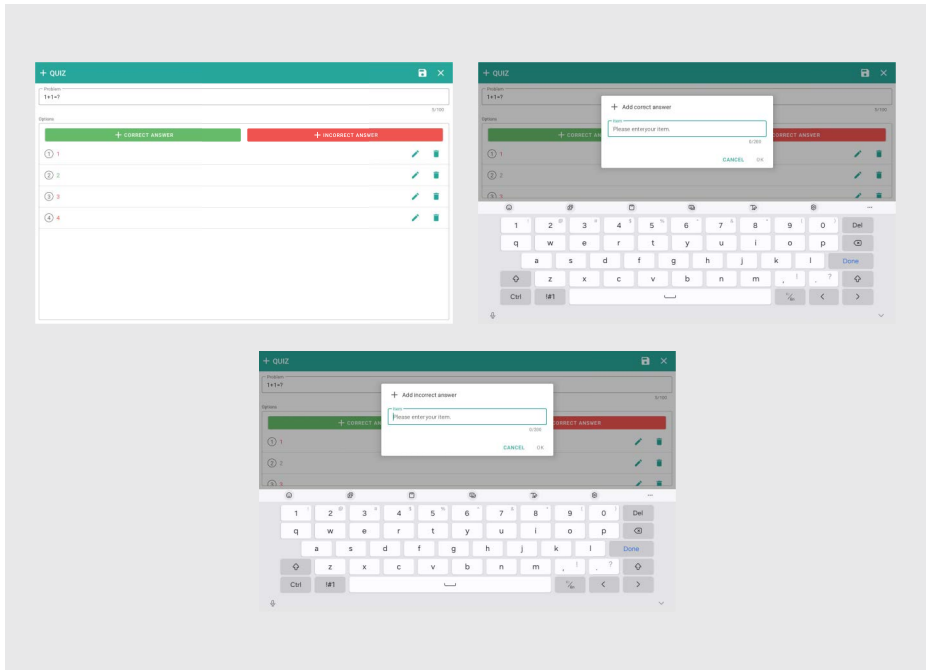
- You can create a quiz to check whether the trainees understand the practice steps well and reflect the results.

- A quiz can be created by defining the questions and adding correct and incorrect answers.

- To delete or reorder the created quiz, you can use the drag-and-drop function.

Training Mode

4-1. Setting Training Mode
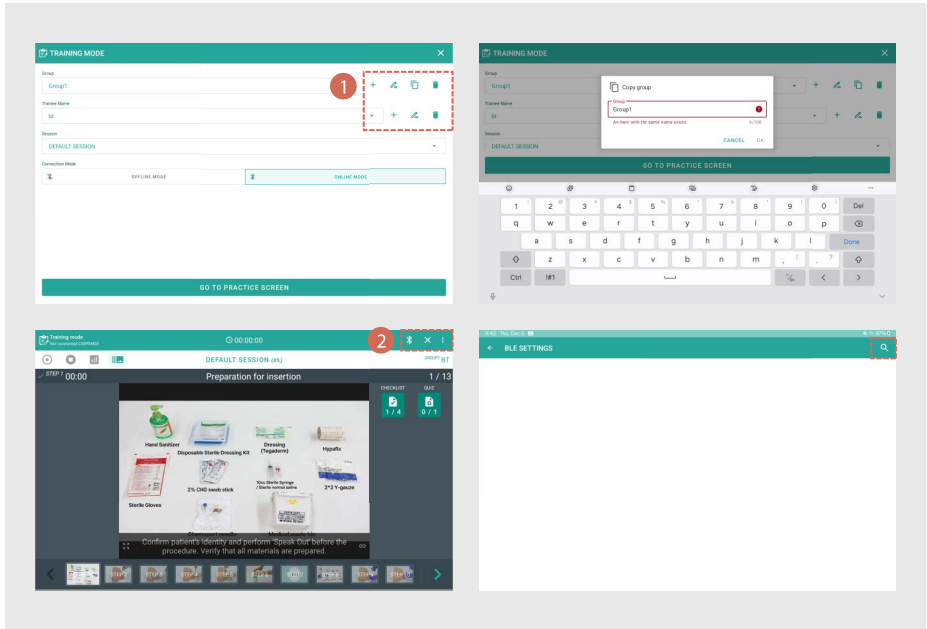
- To start training mode, you need to select trainees and a session.

- The trainee list can be managed by creating groups, with options to add, copy, delete, and rename entries.

- In training mode, only public sessions can be used.

- If the manikin is not available, you can use the offline mode.

① Icon

Icon	Description	Icon	Description
+	Add	✎	Rename
⧉	Copy	🗑	Delete

② Icon

Icon	Description	Icon	Description
✳	Connect bluetooth	🔗	Reconnect Bluetooth

4-2. Running Training Mode
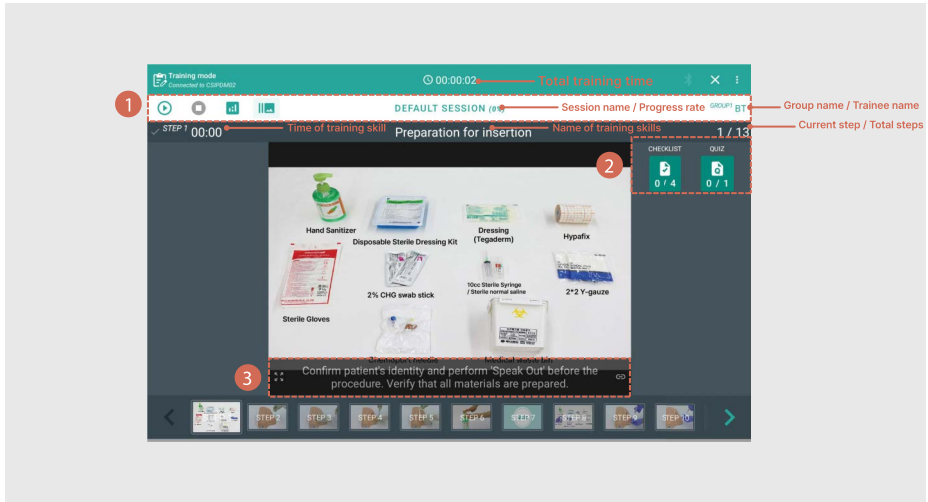
① Icon

Icon	Description	Icon	Description
▶	Start	■	Stop
(Results icon)	Results	(Progress window icon)	Progress window for training steps
DEFAULT SESSION (0%)	Preview the Session		

② Icon

Icon	Description	Icon	Description
(Checklist icon)	Checklist	(Quiz icon)	Quiz

③ Icon

Icon	Description	Icon	Description
🔗	Watch on other Platforms	(resize icon)	Change the Display Resolution
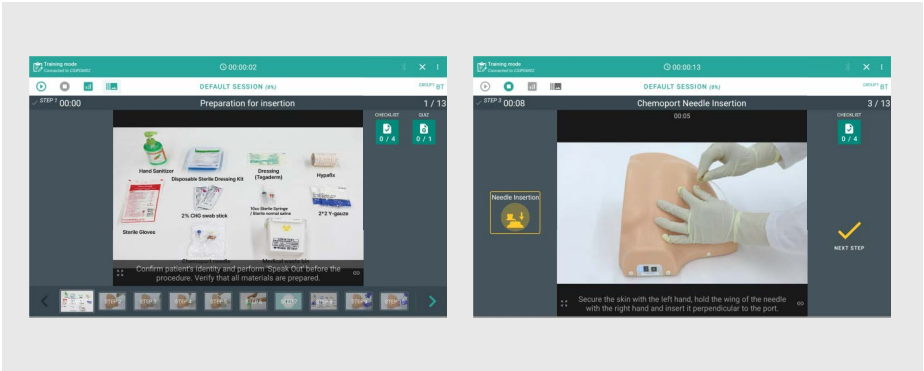
- The purpose of training mode is to repeat the selected session to improve the trainees' understanding and execution ability of the session.

- In training mode, you can use the progress window at the bottom to revisit and practice previously completed steps.

- In offline mode, you can manually perform actions like needle insertion, flushing, and needle removal by clicking the corresponding icons.

4-3. Watching videos
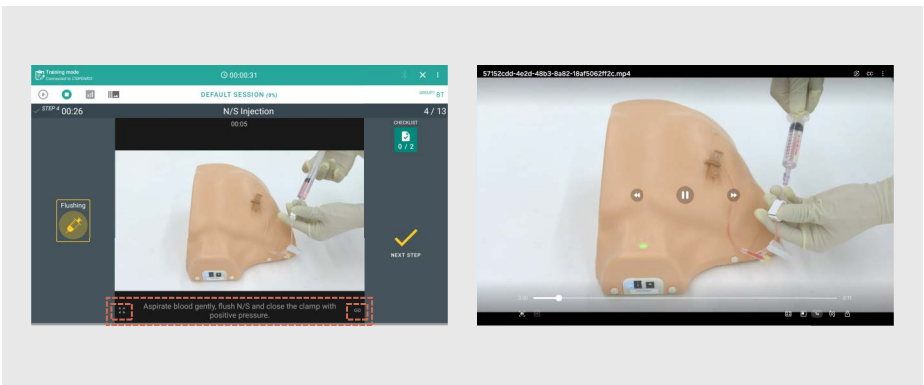
- Videos explaining the practice procedures can be provided as images or videos.
- You can click on the practice video to pause or restart.
- Subtitles can be toggled on or off, and the video can also be viewed using other photo and video apps installed on the tablet.

4-4. Preview sessions
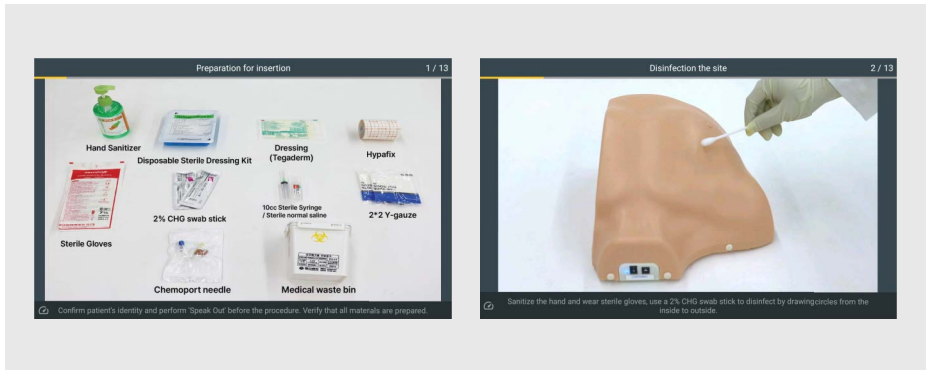
- The session preview feature allows you to view each step of the session in a short video format.
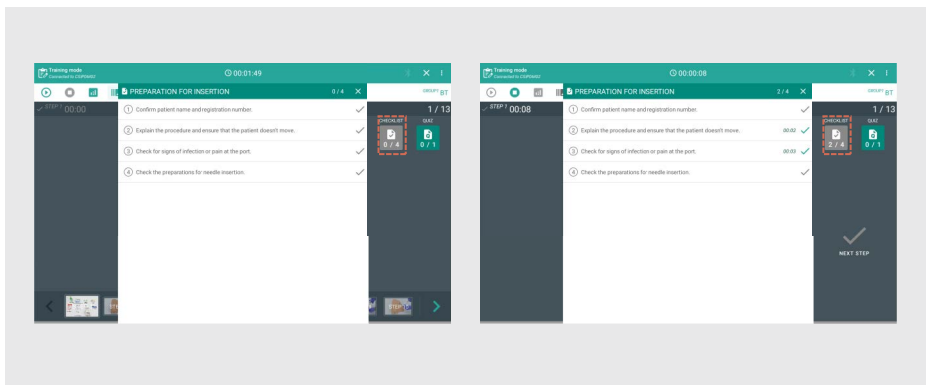
- The short video can be paused and restarted, and the play speed can also be adjusted.

4-5. Checklist

- For each step of the session, important parts can be created as a checklist, allowing trainees to check items as they proceed with the practice.

- The result of checklist is displayed on the training screen in the format "Completed Count/Total Count," along with the execution time and whether each item was checked.

4-6. Quiz
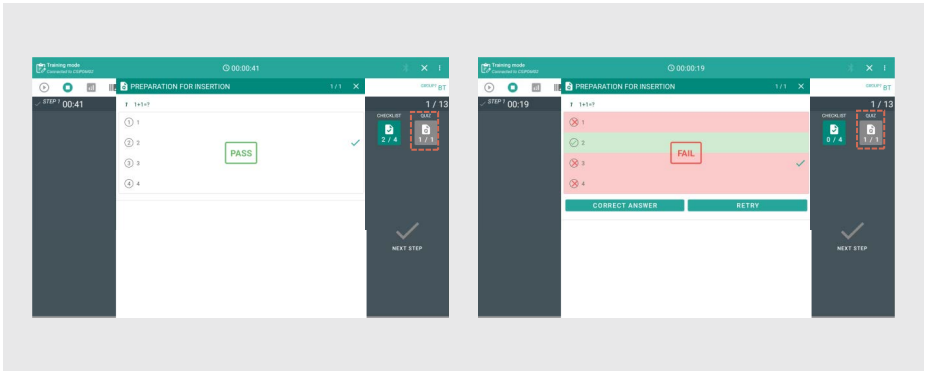
- Trainees can be assessed on their understanding of the corresponding practice step by solving quizzes.

- Quizzes are displayed in a "PASS/FAIL" format, and trainees can retry or confirm the correct answers.
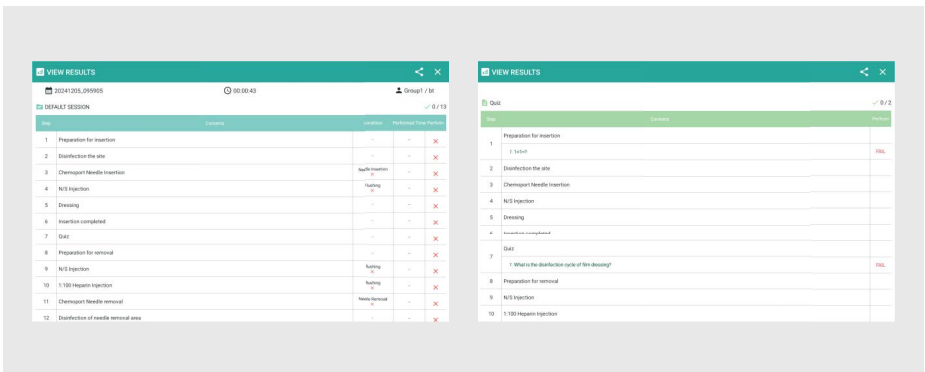
- The quiz results are shown on the practice screen in the format "Completed Count/Total Count."

4-7. Result

- The results of training mode consist of the training results for each step, checklist results, and quiz results.

- Through the training results for each step, you can check whether conditions were met, the step execution time, and whether the step was completed.

- Checklist results are displayed for each step in the format (✓ / X) to indicate completion. Quiz results are displayed in the format "(PASS / FAIL)."

- Training results cannot be saved but can be shared using the sharing function to export.

Assessment Mode

5-1. Setting Assessment Mode
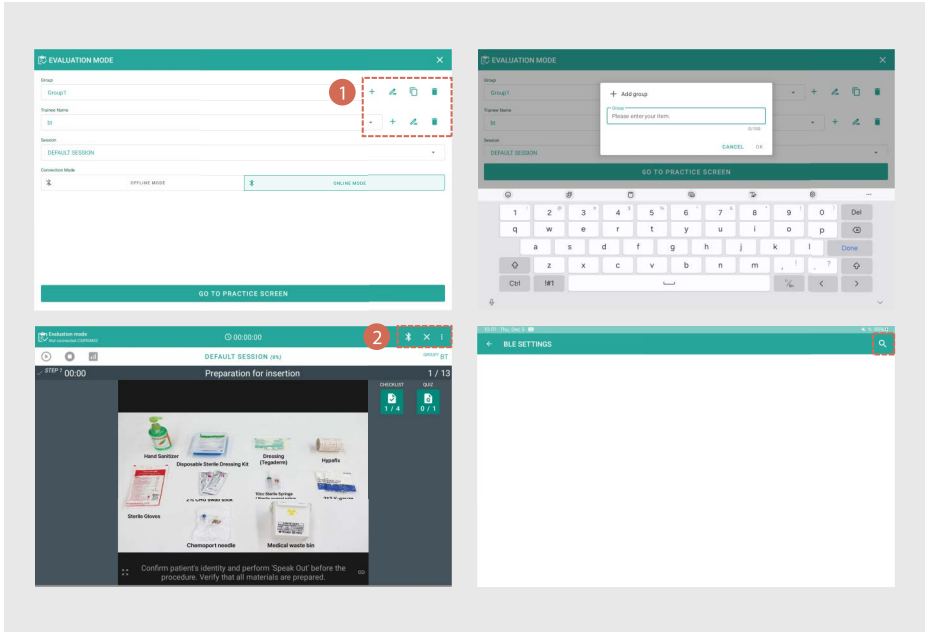
- To start assessment mode, you need to select trainees and a session.

- The trainee list can be managed by creating groups, with options to add, copy, delete, and rename entries.

- In assessment mode, both public and private sessions can be selected.

- If the manikin is not available, you can use the offline mode.

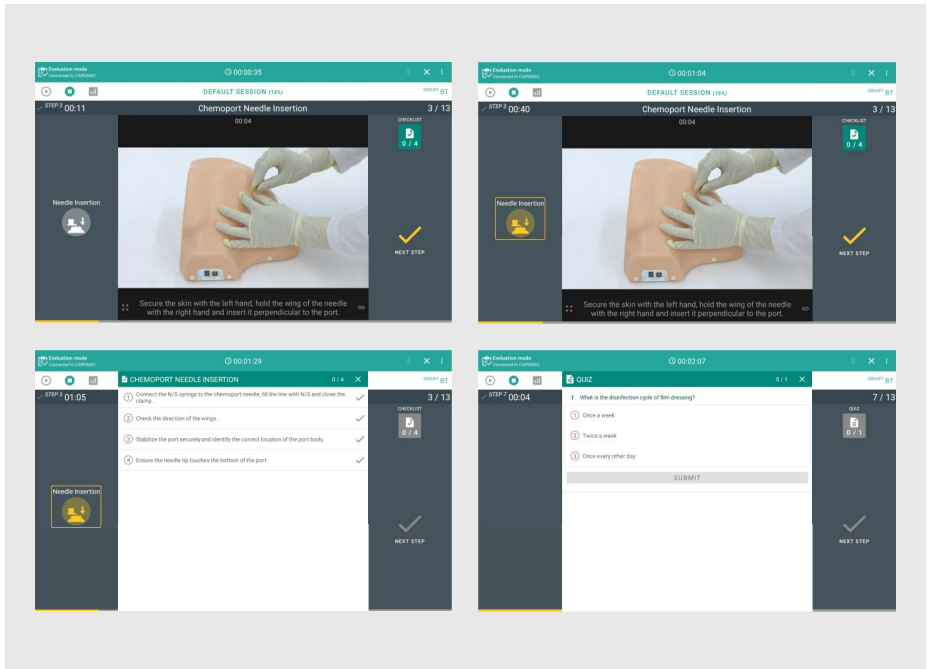### ① Icon

Icon	Description	Icon	Description
+	Add	✎	Rename
⧉	Copy	🗑	Delete

② Icon

| Icon	Description	Icon	Description
✳	Connect bluetooth	🔗	Reconnect Bluetooth

5-2. Running Training Mode

- The purpose of assessment mode is to assess, compare and analyze the performance abilities of trained trainees through repeated practice.

- Unlike training mode, once each step is completed, you cannot return to the previous step, and quiz answers and results cannot be reviewed.

- In offline mode, you can manually perform actions like needle insertion, flushing, and needle removal by clicking the corresponding icons.
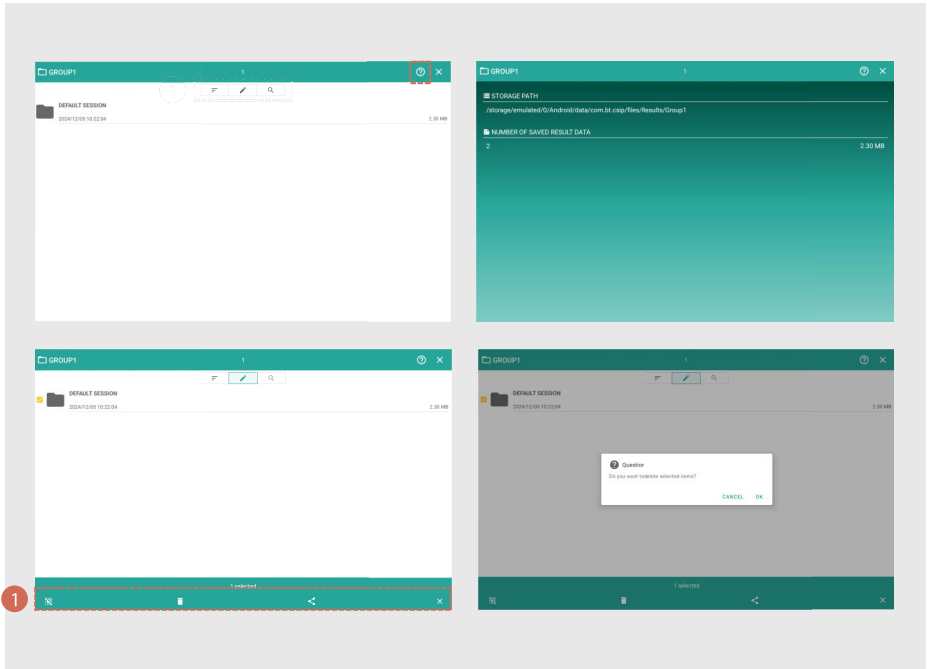
Results

6-1. Directory of Group Results
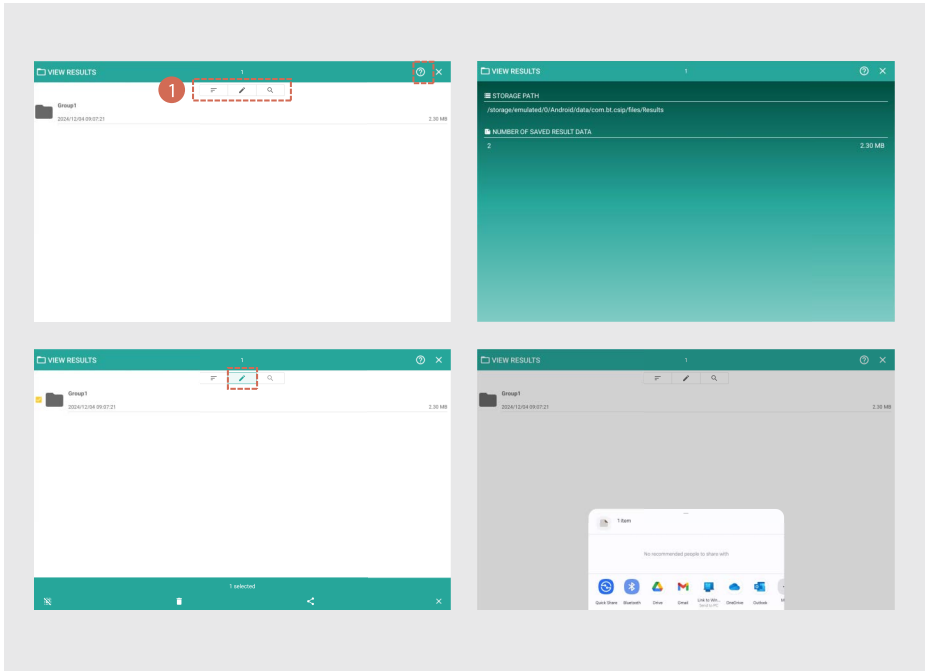
- Assessment results are organized and stored by group.
- You can search for or sort group folders to review the desired ones.
- By opening the directory information window, you can check the storage path and the number of results stored in that location.
- In edit mode, you can delete group folders or export the stored results externally.

① Icon

| Icon	Description	Icon	Description
	Sort Settings		Edit
	Ascending Sort		Descending Sort
	Search		

6-2. Directory of Session Results

- When you click the group folder, the directory of session results will appear.

- You can search for or sort session folders to review the desired ones.

- By opening the directory information window, you can check the storage path and the number of results stored in that location.

- In edit mode, you can delete session folders or export the stored results externally.

① Icon

| Icon	Description	Icon	Description
	Select all		Deselect
	Delete		Export Results
	Exit		

6-3. **Directory of Trainee Results**
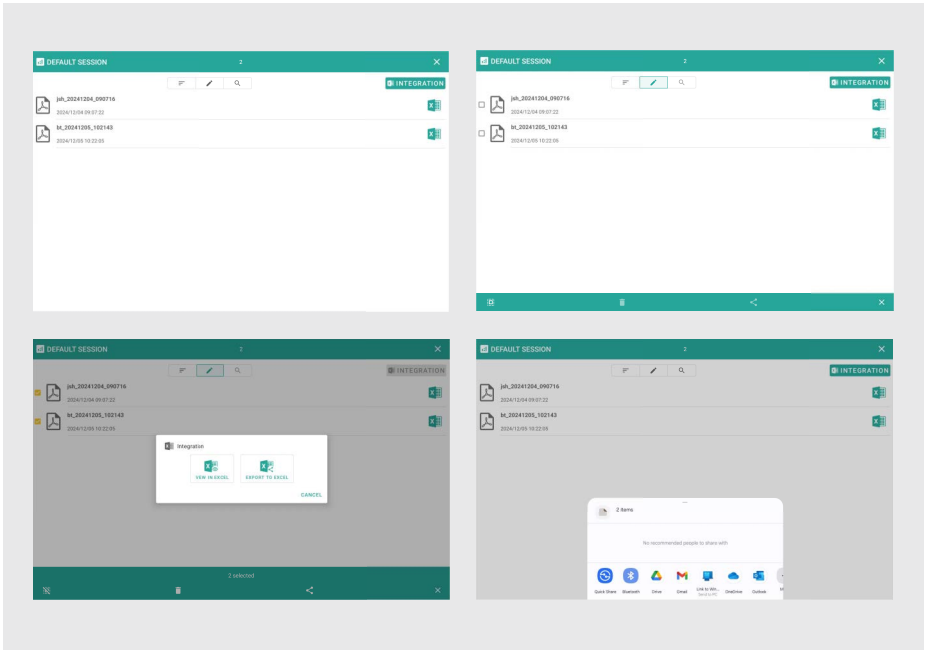
- When you click the session folder, the directory of trainee results will appear.
- You can search for or sort trainee results to review the desired ones.
- In edit mode, you can delete trainee result files or export the saved results in PDF and Excel formats.
- If a printer is connected to the tablet in use, the saved results can be printed.
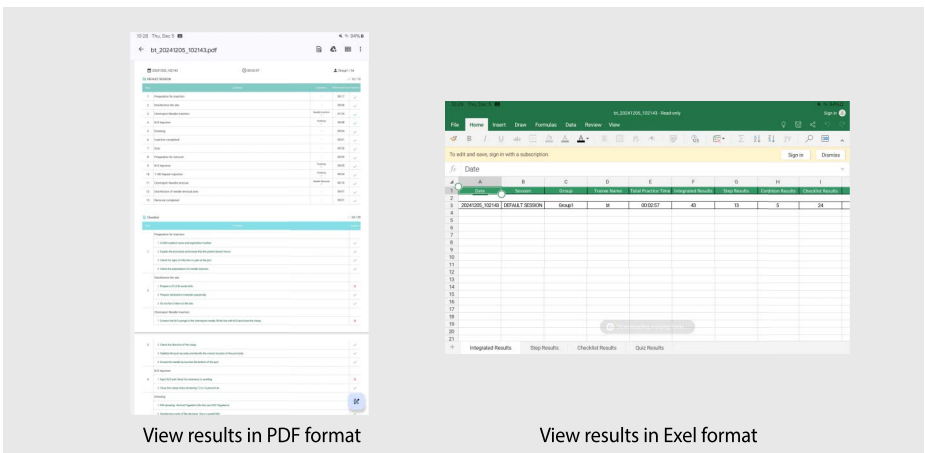
View results in PDF format   View results in Exel format

6-4. Directory of Trainee Results : Check the integrated result
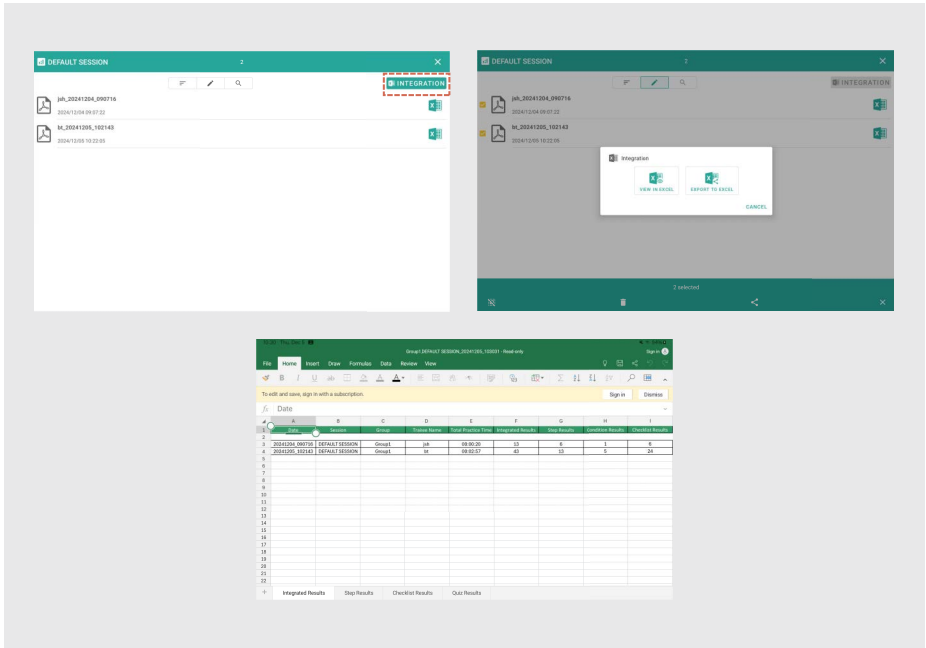
- The saved evaluation results can be integrated in Excel format for a review or shared to the desired location.
- In edit mode, you can integrate or share only the selected results.

BT-CSIP

Chemoport Injection Training Simulator