



CPR class by **heartisense™**

User manual

Contents

1. Initial set-up	3
1.1. What is Class?	3
1.2. Installing the devices and the program	3
1.2.1. Installing AoK(Add-on Kit)	3
1.2.2. Installing Class program	4
1.2.3. Installing Class peripherals	4
2. Preparing training with Class	5
2.1. Running Class program	5
2.1.1. Class program main screen	5
2.2. Turning on AoK(Add-on Kit) installed within manikin	5
2.3. Selecting manikin type	6
2.4. Connecting the PC and AoK(Add-on Kit)	6
2.5. Connecting the display and running Class program	7
3. Features	8
3.1. Feedback Mode	8
3.1.1 What is Feedback Mode?	8
3.1.2. How to use Feedback Mode	9
3.1.3. Settings during the training	12
3.2. Mission Mode	13
3.2.1 What is Mission Mode?	13
3.2.2. How to use Mission Mode	13
3.3. Checking and exporting the results	16
3.3.1 Checking the results	16
3.3.2 Exporting the results	16
4. Class settings	17
4.1. General settings	17

1. Initial set-up

1.1. What is Class?

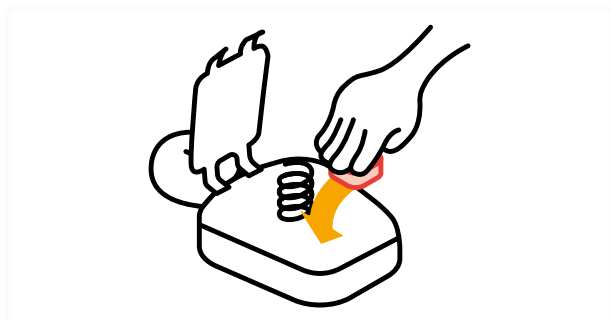
Class is a new solution enabling mass CPR training with AoK(Add-on Kit) installed manikins. Up to 45 manikins can be connected and it supports the connection with monitor, TV and projector. Also the instructors can run synchronized training session with their devices through Wi-Fi.

1.2. Installing the devices and the program

Follow below instructions for installing the devices, program and peripherals

1.2.1. Installing AoK(Add-on Kit)

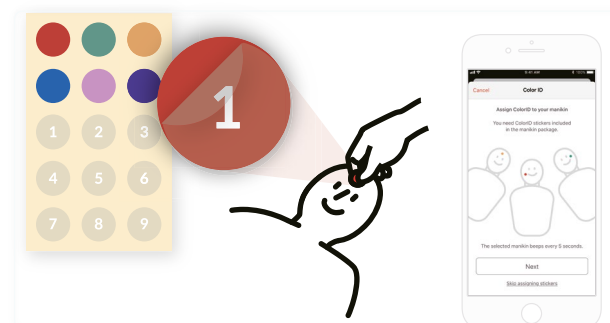
1) Installing AoK(Add-on Kit) on manikin



① Refer to AoK installation guide for your manikin, to install AoK on manikin.

※ AoK installation guides for different types of manikins can be found from www.cpraddonkit.com/support

2) Assigning and re-assigning color ID.

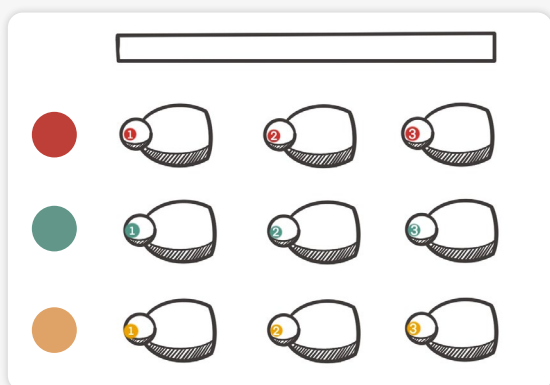


① Search 'CPR Add-on Kit Student' from app store and download the app.

② Run CPR Add-on Kit Student app.

③ **(Initial set-up)** Set color ID during the initial connection. **(Re-assign)** After connecting the kit, tap on color ID icon on connection screen, to adjust color ID.

TIP. Guide for arranging kits in classroom



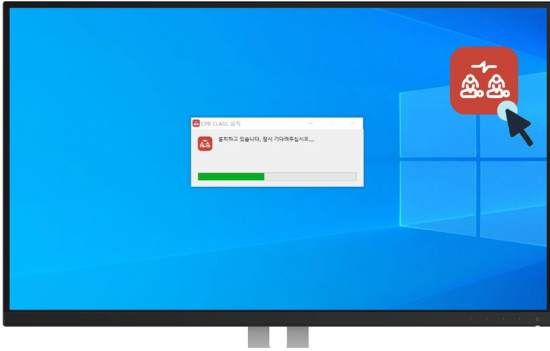
The order of cell arrangement in Class program is color > number and the color order is as below:



If you assign 1~3 manikins for Red, Green, Orange, it will be shown as ① ② ③ ① ② ③ ① ② ③

When arranging the manikins in the classroom, it is best to consider color ID order first.

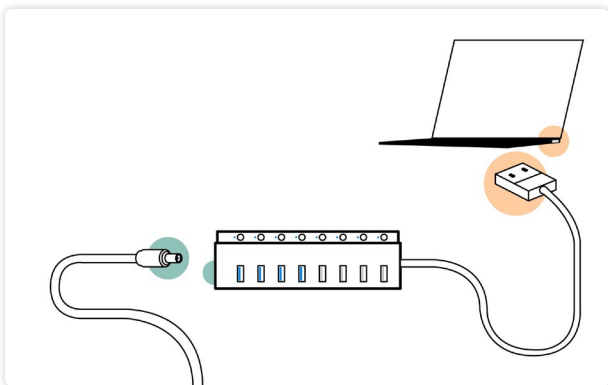
1.2.2. Installing Class program



- ① Run Class program installation file on Windows PC (64bit).

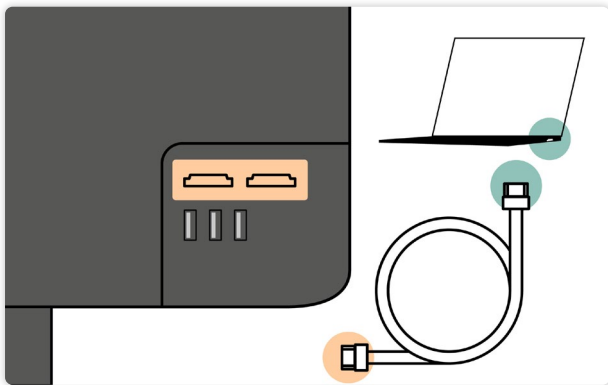
1.2.3. Installing Class peripherals

1) Installing Class BLE dongle hub



- ① Connect power adapter to the hub.
 - ② Connect the hub to PC.
 - ③ Install the hub at open and exposed space to ensure proper connection with AoK.
- ※ The connection between AoK installed within manikin and the hub might be weak if there are obstacles between.

2) Connecting display screen



- ① Connect PC with large screen, projector or TV using HDMI cable.

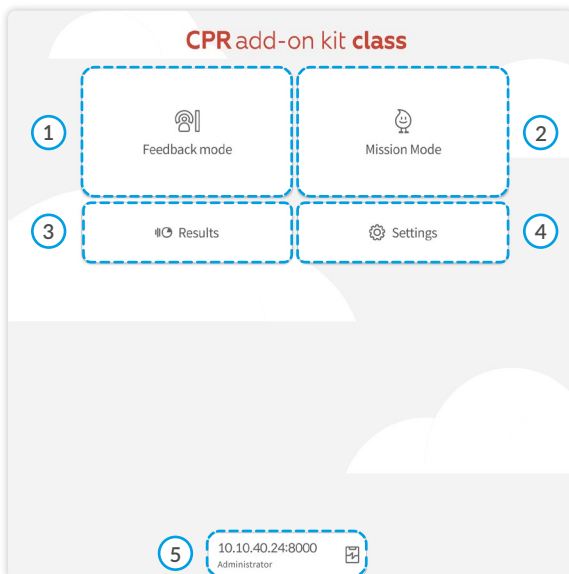
2. Preparing training with Class

2.1. Running Class program



- ① Double click Class program icon to run Class program.

2.1.1. Class program main screen



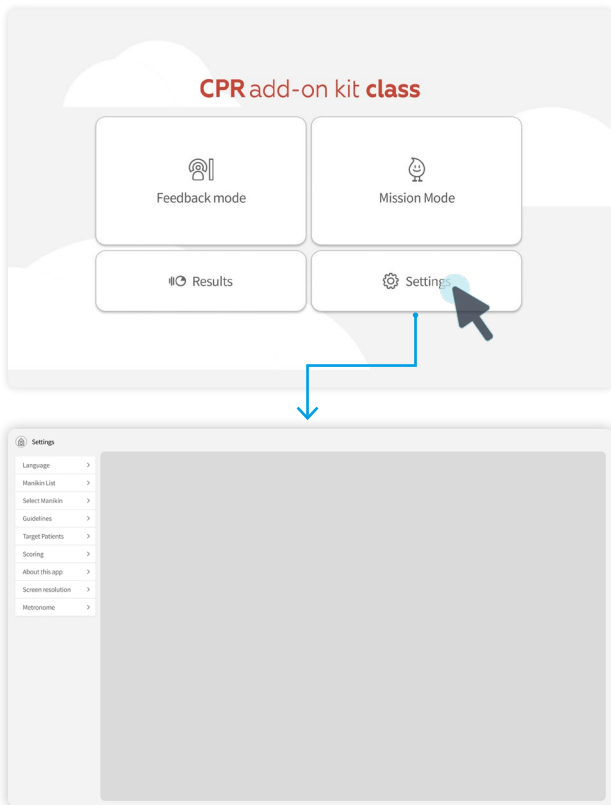
- ① Feedback mode for real-time CPR performance feedback
- ② Mission mode for learning CPR through competing in a game
- ③ Checking stored data from sessions during Feedback mode
- ④ Settings for training and screen options
- ⑤ Assigned IP address for Class program
(Click to check IP address for instructor and student)

2.2. Turning on AoK(Add-on Kit) installed within manikin



- ① Perform full compression for more than 3 seconds to turn on.
- ※ Beep sound is made when power is on.

2.3. Selecting manikin type



① Click 'Settings' from the main screen.

② Go to 'Manikins' then select the manikin type you'll use for Class program.

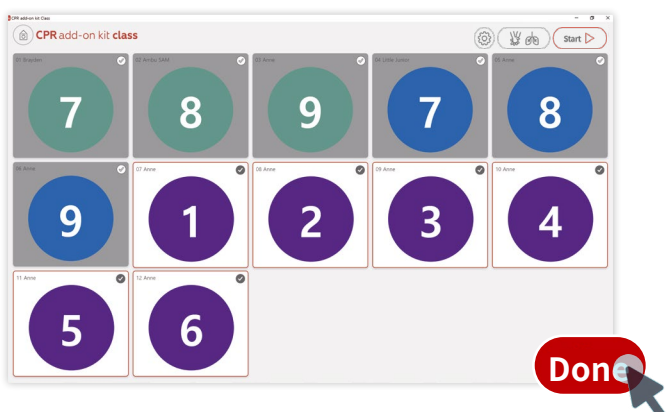
2.4. Connecting the PC and AoK(Add-on Kit)

1) Adding manikin



① Click bottom right 'Adding kits' button to go to manikin addition screen.

2) Select manikins to add and click 'Done'



① Select manikin to add in manikin addition screen

② Click and check on manikins to add, then click 'Done.'

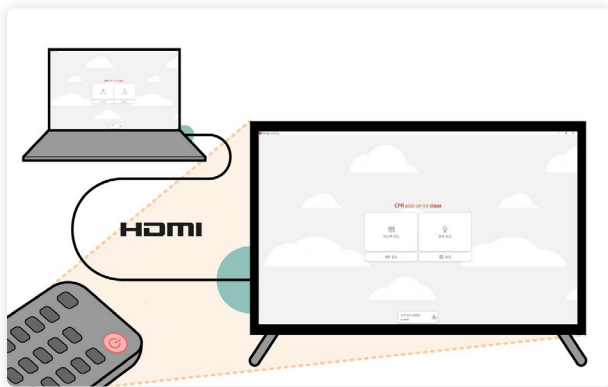
3) Checking top center 'Connected Manikins' message



- ① Check top center message to see how many manikins are connected, to finish the preparation.

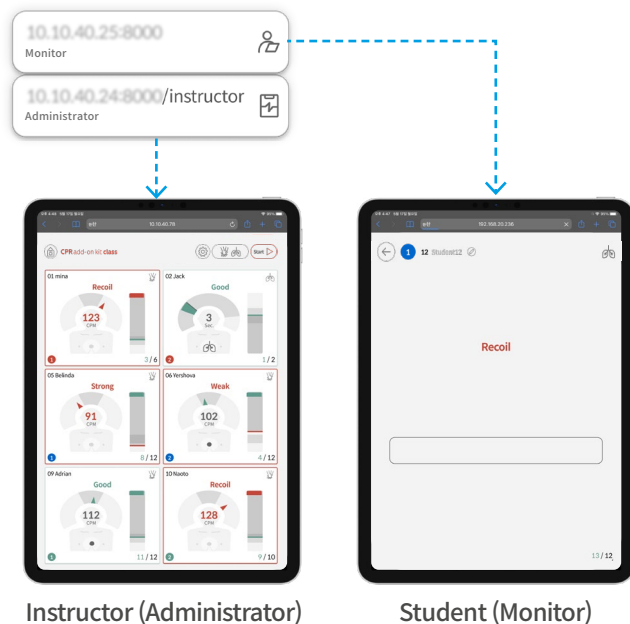
2.5. Connecting the display and running Class program

1) Connecting with large displays and screen sharing



- ① Connect HDMI cable with PC to run Class program, and connect the other side with large monitor, beam projector, TV, etc.
- ② Turn on large display for screen sharing.

2) Sharing instructor and student display



Insert the IP address shown in Class program main screen bottom center, in web browser of the mobile device for screen sharing.

- ① Students can insert IP address in web browser for screen sharing. For checking real-time CPR performance feedback, select the manikin cell with matching color ID accordingly.
- ② For instructor, add '/instructor' after the IP address for monitoring CPR performance of the students.

3. Features

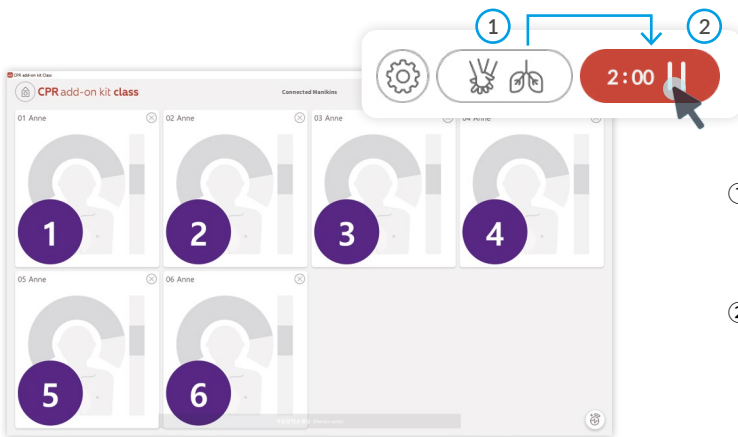
3.1. Feedback Mode

3.1.1 What is Feedback Mode?

Feedback mode measures CPR performance of the students and provide real-time feedback. Major CPR components such as compression, breath and recoil are analyzed and displayed on the screen. All training session data is stored and can be reviewed or shared later.

3.1.2. How to use Feedback Mode

1) Choosing CPR measuring category and starting the session



- ① Selecting measurement category through clicking on category selection button on the top right corner, you can choose measurement category as below.
- ② Starting the training after selecting the measurement category, click 'Start' button to start feedback mode training.



Chest compression CPR training (Hands-only)

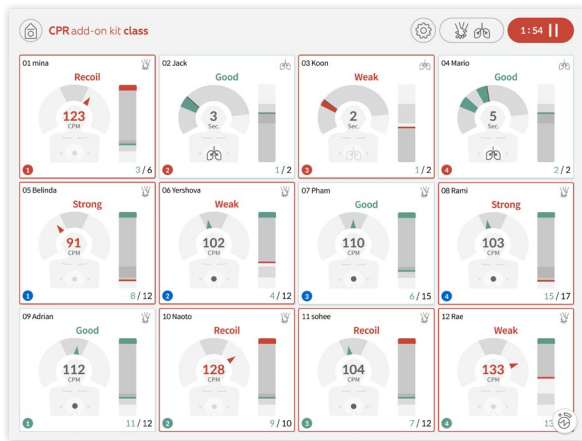
Only chest compression will be measured. Hands-only CPR training will only consider chest compression.



Conventional CPR training

Both chest compression and breath will be measured. Participants will have to perform both chest compression and breath for conventional CPR training.

2) Checking session time and feedback

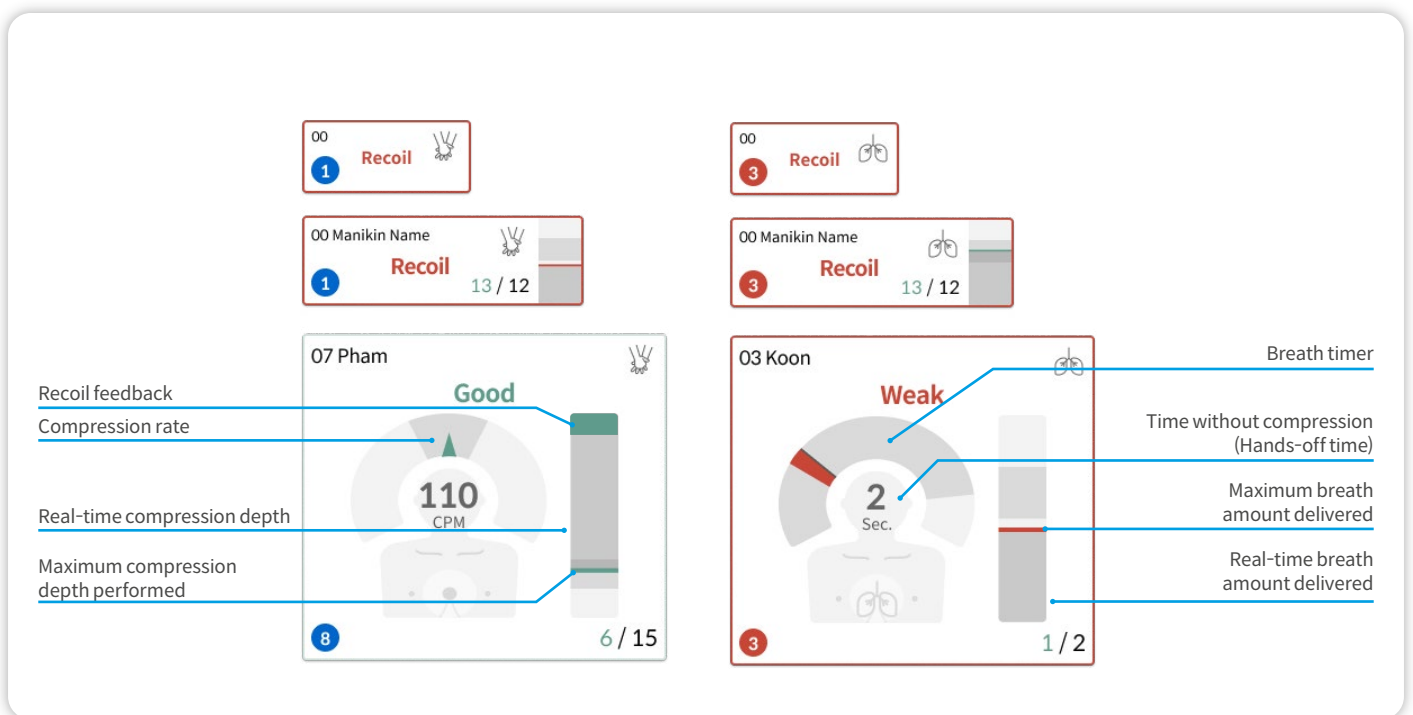


① Checking session time

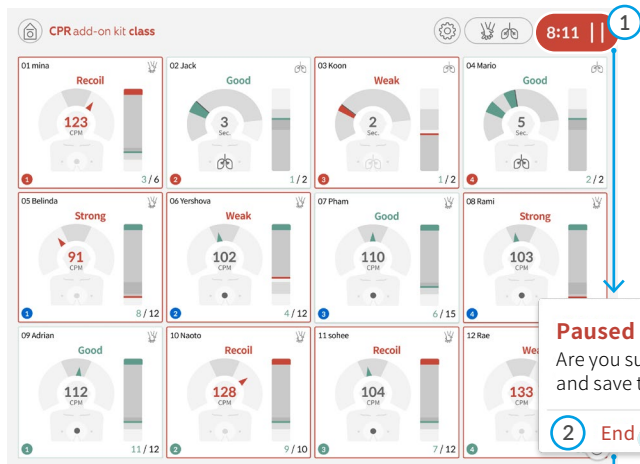
After starting the feedback mode training, the timer will start counting at right top corner.

② Checking feedback

Each cell size will automatically be scaled depending on the device for display and screen resolution. If cell size is big enough, more detailed feedback will be provided.



3) Pausing, resuming and ending the training session



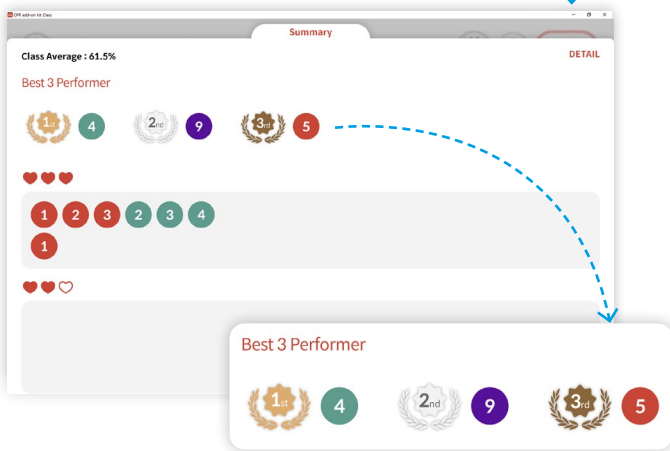
① Using end/pause button

If you wish to end or pause the session, click the red timer button.

② End or resume the session

During pause, select 'End' to end the session or 'Resume' to resume the session.

4) Checking session summary and results



③ Checking session summary

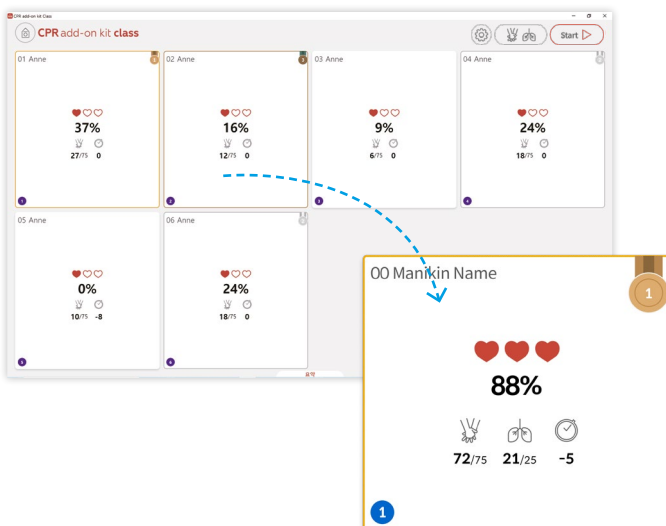
After the training session is over, top 3 students and their colorIDs will be shown. The score distribution of all students will be shown as the number of hearts. The scoring groups are as below.

♥♥♥♥ Less than 75

♥♥♥♥ Equal to or above 50 and less than 75

♥♥♥♥ Less than 50

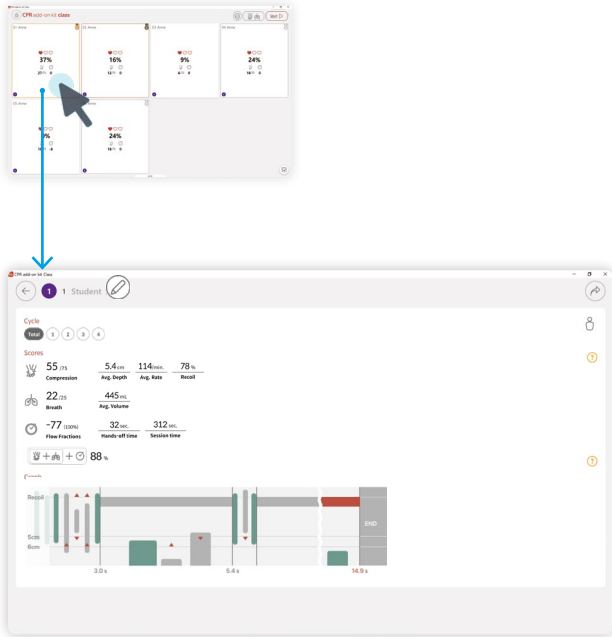
5) Checking detailed results



④ Checking detailed results

Top 3 students will have medals on the top right corner of their respective cells. You may click on each cell to check detailed summary of CPR performance showing compression, breath, hands-off time and etc.

6) Detailed results of individual cells



Checking detailed results of individual cells

Select the cell you wish to check for detailed result.

Detailed results page

You can change the student's name, check feedback data and export the result from the detailed results page.

- ① **Checking individual detailed results page**
In individual detailed results page, overall session performance is shown as bar graph.
- ② **Changing student name**
Click on pencil shaped edit button to change student name.
- ③ **Checking feedback data**
Click on question mark shaped Help button, to check how feedback score is calculated and what graph represents.
- ④ **Exporting results**
Click on arrow shaped Export button to export the results data in a format you want.

Tip. Understanding the numbers

Scores

55 /75 Compression	5.4 cm Avg. Depth	114/min. Avg. Rate	78 % Recoil
22 /25 Breath	445 mL Avg. Volume		
-77 (100%) Flow Fractions	32 sec. Hands-off time	312 sec. Session time	

+ + 88 %

Compression score

- Average depth: Average compression depth
- Average rate: Average compression rate per minute

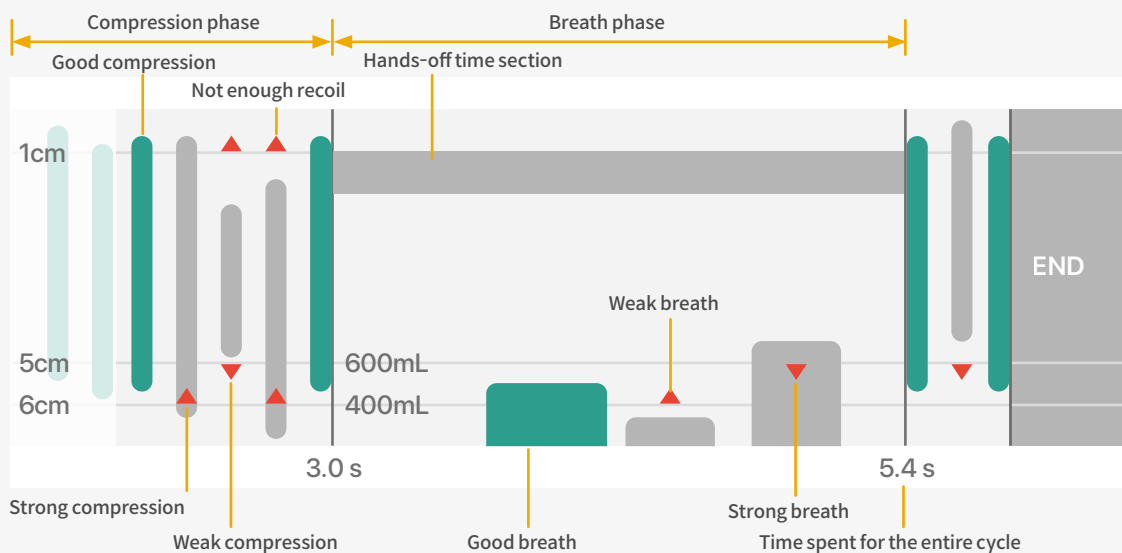
Breath score

- Average volume: Average breath delivered

Flow Fractions

- Hands-off time: The time passed since the last compression
- Session time: The training session time
(The longer the hands-off time, the lower the score)

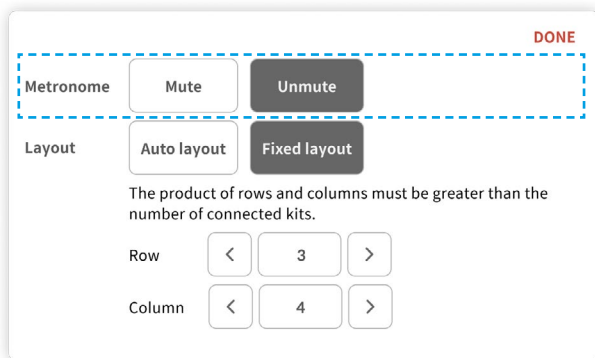
Total score = Compression + Breath + Flow Fractions score



3.1.3 Settings during the training

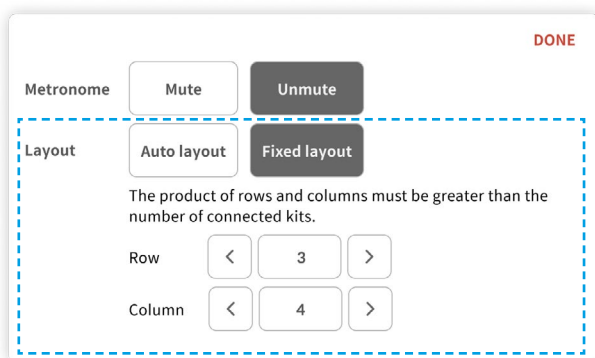


① Click 'Settings' button



② Setting the metronome

Click 'Settings' button, and choose whether to mute or unmute metronome sound.



③ Choosing the screen layout for Feedback Mode

Click on 'Settings' button and select either 'Auto layout' or 'Fixed layout'. 'Fixed layout' option will let you choose the number of row and column of student cells shown.

※ Changed layout option is applicable only for 'Feedback Mode.'

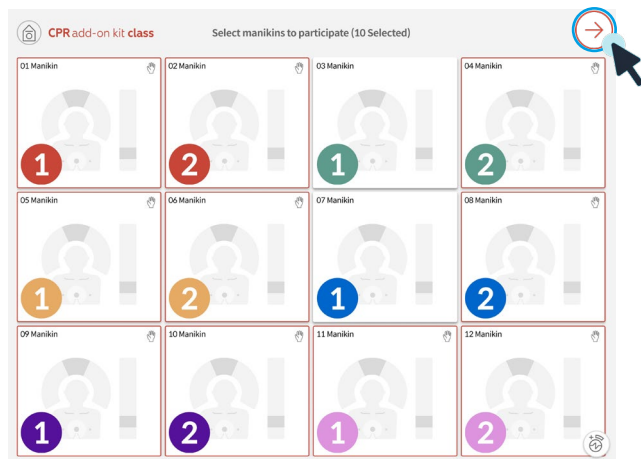
3.2. Mission Mode

3.2.1 What is Mission Mode?

Mission Mode is a gamification of CPR elements and lets the students to compete with one another. Students can learn how CPR would affect oxygen saturation and blood flow rate which are critical survival elements.

3.2.2. How to use Mission Mode

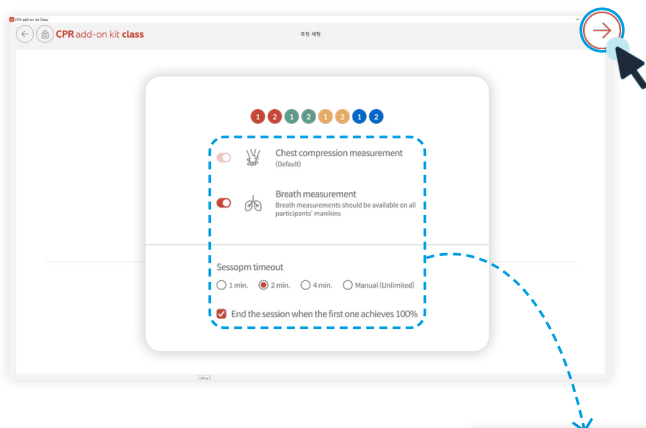
1) Checking manikin connection



Checking manikin connection and moving onto next screen

Check top center connection completion message and select the cells of the students participating Mission Mode. After the selection is completed, click on arrow button on top right corner to move onto next screen.

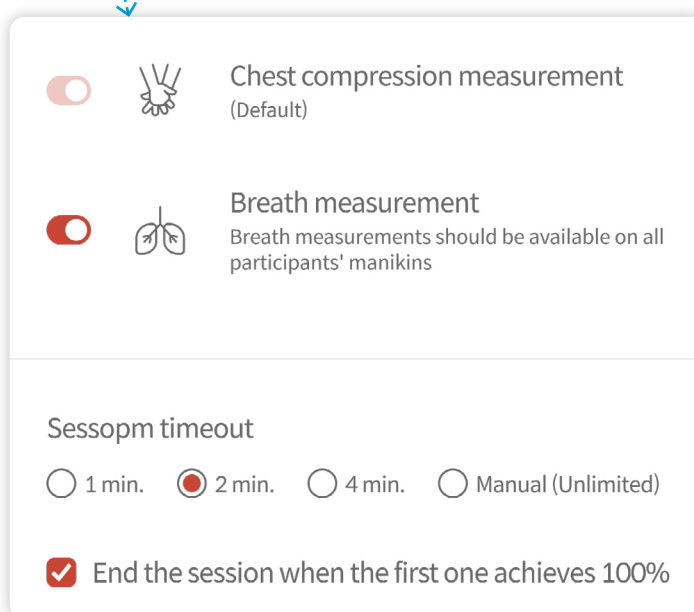
2) Mission Mode settings



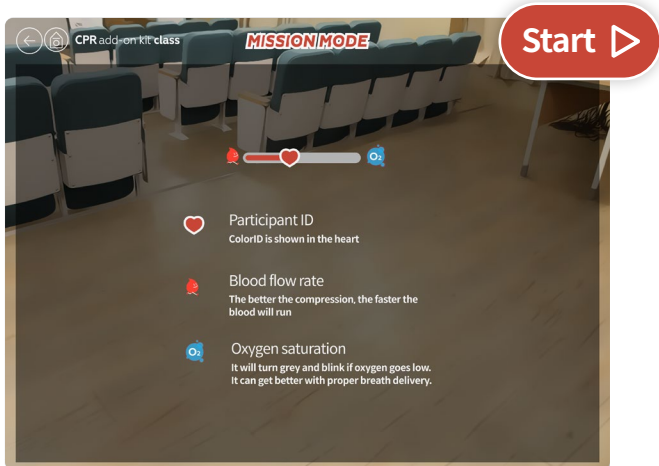
② Mission Mode settings

You can choose different scoring category and timeout options for running Mission Mode. After you complete the settings, click the arrow button on top right corner to move onto next screen.

- You can select breath measurement additionally for running Mission Mode.
- If you select timeout as Manual(Unlimited), you have to stop Mission Mode manually.



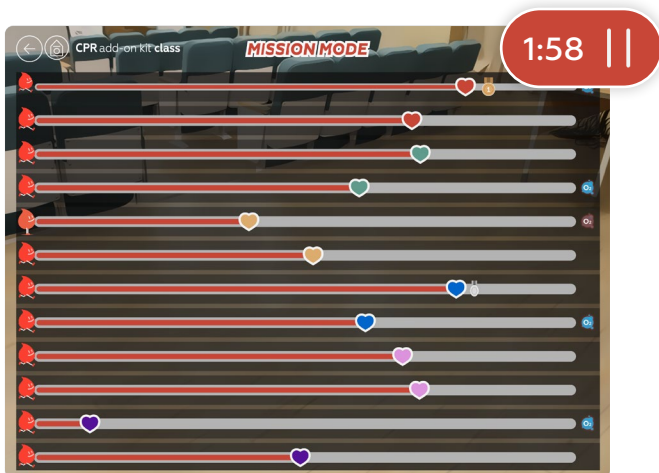
3) Briefing and starting Mission Mode



Starting Mission Mode

The screen before Mission Mode will explain the elements of Mission Mode. After the briefing is completed, click 'Start' button on top right corner to start Mission Mode.

4) Checking session time and feedback



Checking session time

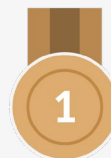
The timer will start on top right corner of the screen and you can check the session time.

Tip. Checking feedback



Blood flow

The better the compression performed, the faster the blood flow will run. If the compression is stopped, blood flow will stop running.



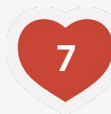
Medal

The top 3 among the participants will have medals on their gauges.



Oxygen saturation warning

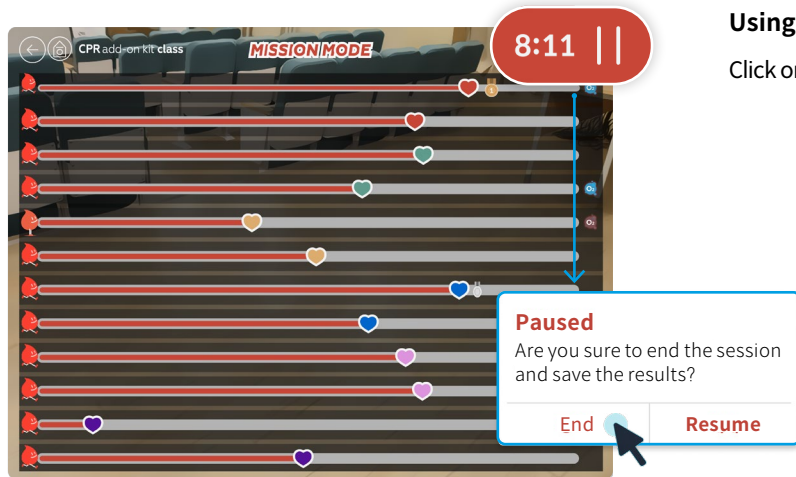
The icon will be shown when oxygen saturation becomes low. With insufficient oxygen saturation, the speed of filling up the gauge becomes slow. And it can be improved by delivering proper breath.



Participant ID

The manikin color ID will be shown.

5) Pausing, ending and resuming Mission Mode



Using 'Pause'

Click on 'Pause' button to pause, end or resume Mission Mode.

6) Checking results

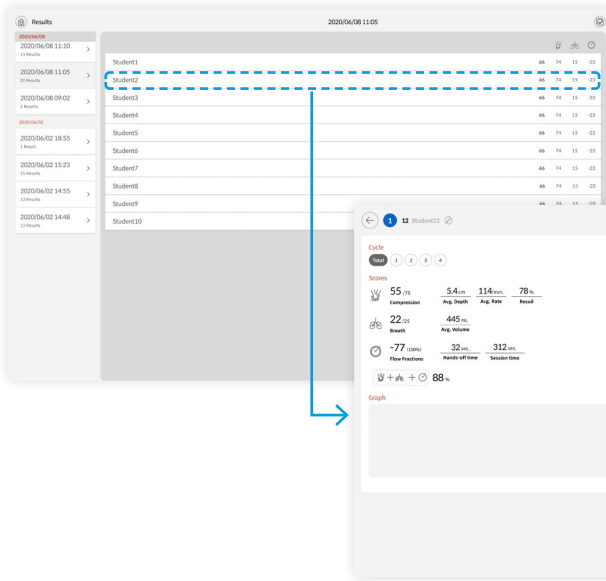
No.	Performer	Survival rate %	Avg. Blood flow mL/min.	Avg. O2 Saturation %	Max # of combo Compressions
1	1	100	187	89	65
2	1	89	157	94	15
3	1	86	183	86	29
4	1	84	176	85	122
5	1	84	142	87	65
6	1	83	139	90	17
7	1	79	120	92	28
8	1	77	99	92	49
9	1	75	110	89	51
10	1	75	122	89	28
11	1	73	133	89	3

Checking results

Top 3 participants will have their colorIDs shown with medals. Each participant's Survival rate (Gauge), Average Blood Flow (Compression), Average Oxygen Saturation (Breath), Max # of combo can be selected to rank based on that category. After checking the results, you can click 'Done' to come back to initial Mission Mode screen.

3.3. Checking and exporting the results

3.3.1 Checking the results

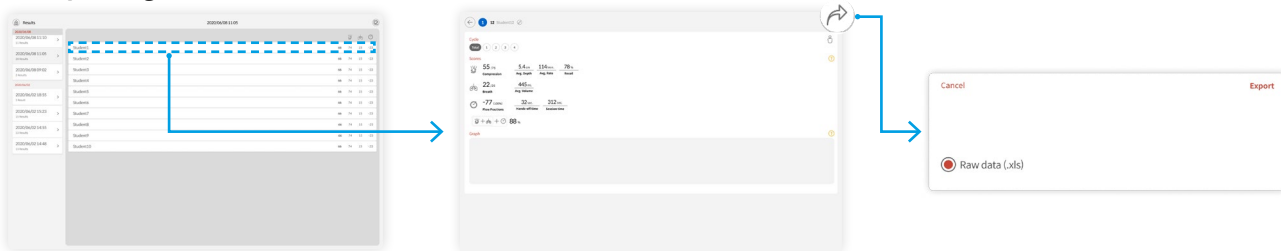


① Checking the results

In 'Results' tab, you can check session results based on date and time. Click on results cell and you can check detailed individual results.

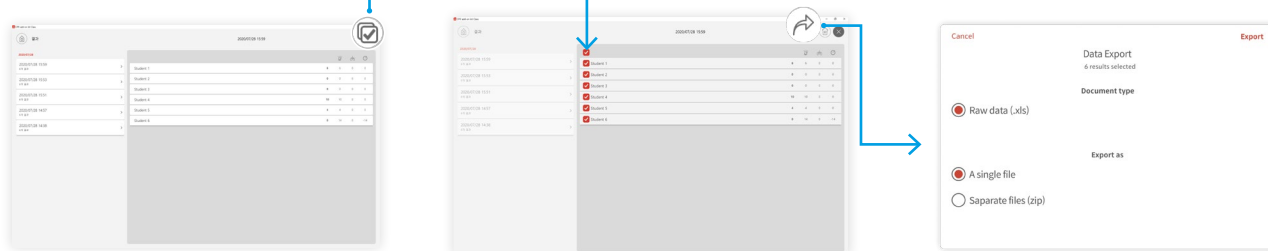
3.3.2 Exporting the results

① Exporting individual results



In detailed individual results, click on arrow shaped button on top right corner to export the results.

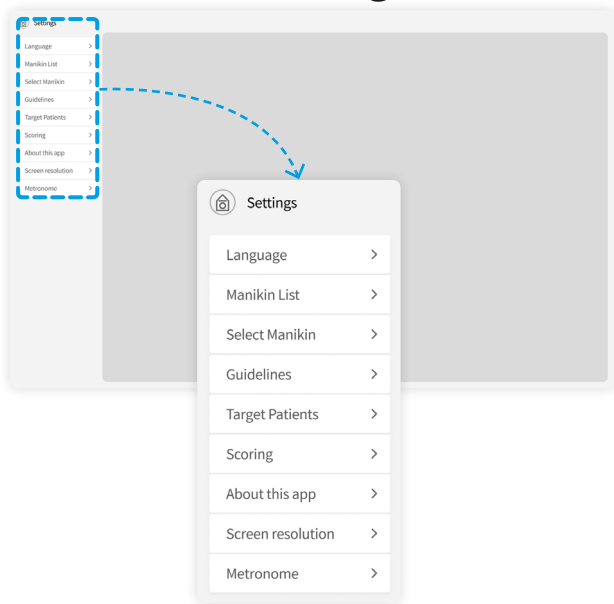
② Exporting group results



On 'Results' screen, click on check mark shaped icon on top right corner to select the all data, or more than 2 cells. If you selected multiple results data you wish to export, click on arrow shaped button on top right corner to export multiple data at once.

4. Class settings

4.1. General settings



- ① **Language**
You can change the language for Class program
- ② **Manikin List**
You can check color ID, name and connection status of manikins
- ③ **Select Manikin**
You can choose the manikin type you want.
- ④ **Guidelines**
You can select the guideline and rescuer type
- ⑤ **Target Patients**
You can select patient type
- ⑥ **Scoring**
You can include or exclude either compression or breath as scoring category. You can also adjust compression and breath score ratio.
(Initial ratio = compression 75: breath 25)
- ⑦ **About this app**
You can check general information about the program.
- ⑧ **Screen resolution [For main PC only]**
You can change the screen resolution ratio as you want.
- ⑨ **Metronome**
You can select the metronome sound rate.