

# ASUS Portable Ultrasound Solution

## DEMO KIT



- **【APP Download】**   
- **【Boot up and connection】** - Connect the probe with device QRcode
- **【Scan】** - B, C, M, PW and PD modes
- **【Annotate, measure and save】** - Annotation, measuring length and area, saving images and videos
- **【DICOM support】** - Download worklist and upload DICOM file

## General Functions:

- 【Boot up and connection】 - Connect the probe with QR code
- 【Scan】 - B, C, M, PW and PD modes
- 【Annotate, measure and save】 - Annotation, measuring length and area, saving images and videos
- 【Dual screen】 - Export and import the images to compare it
- 【DICOM support】 - Download worklist and upload DICOM file

- **【APP Download】**   
- **【Boot up and connection】** - Connect the probe with device QRcode
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**【Boot up and connection】**



## Step 1

Turn on: Pressing the power button for 3 seconds

Turn off: Pressing the power button for 3 seconds

## Step 2



**Blue light**  
<Charging>



**Lights out**  
<Power OFF>

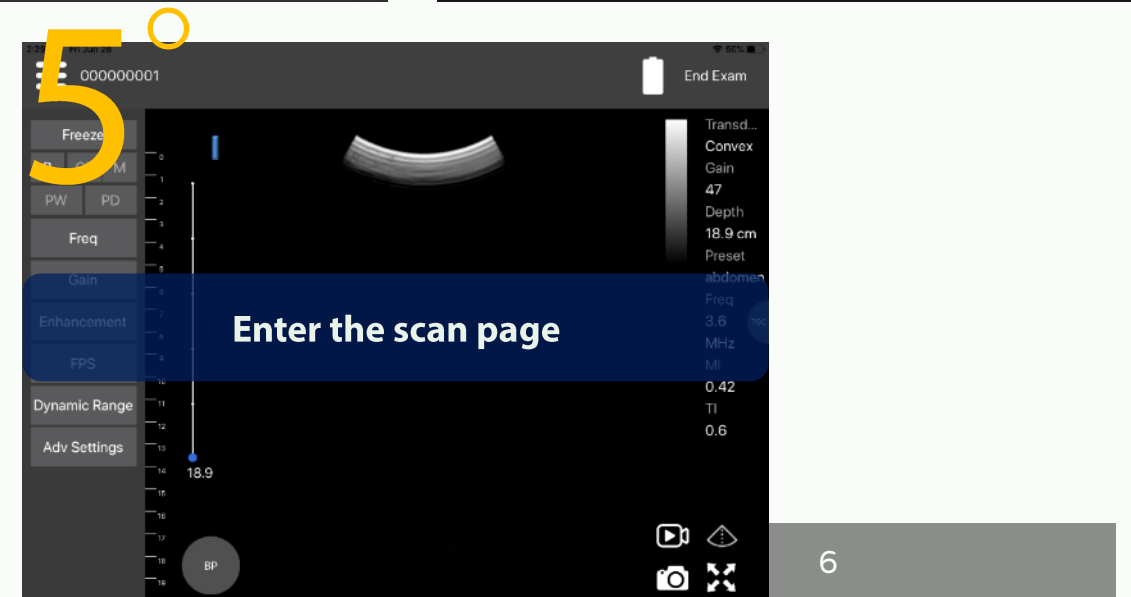
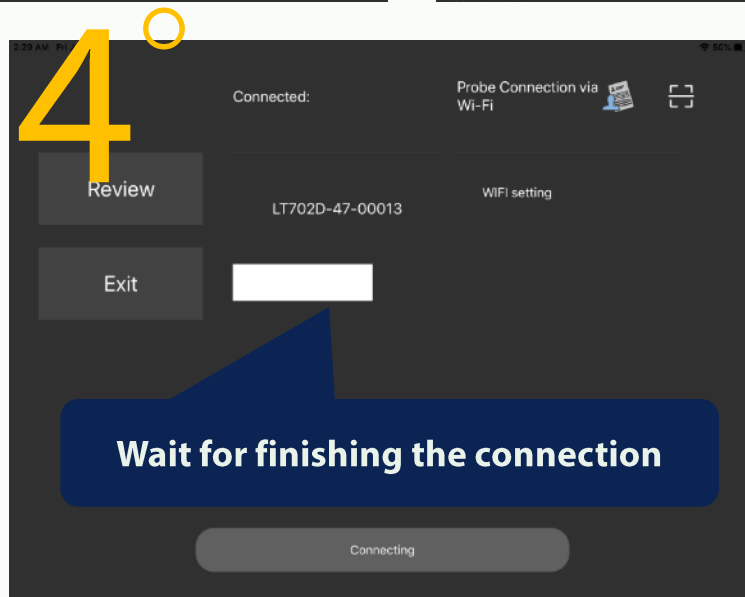
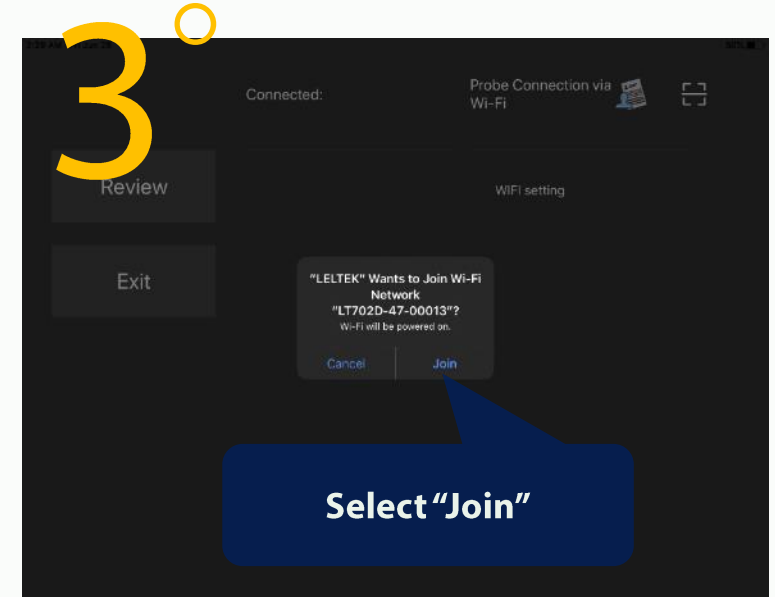
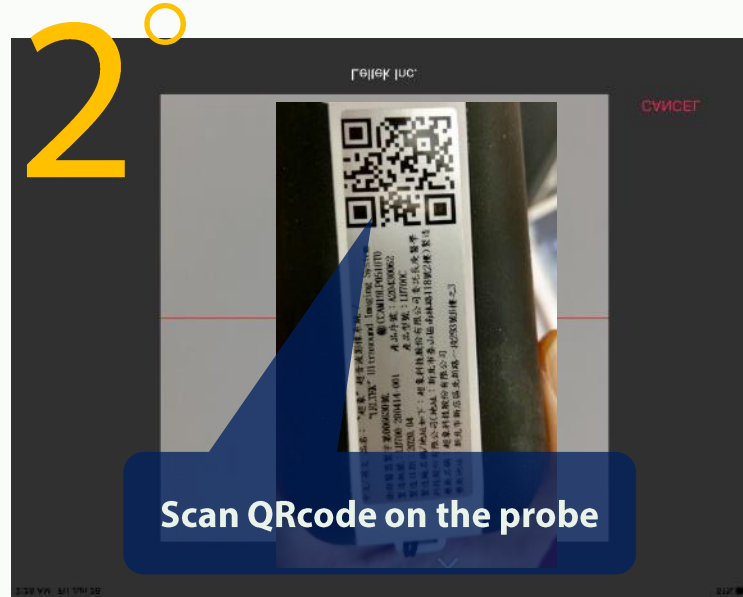
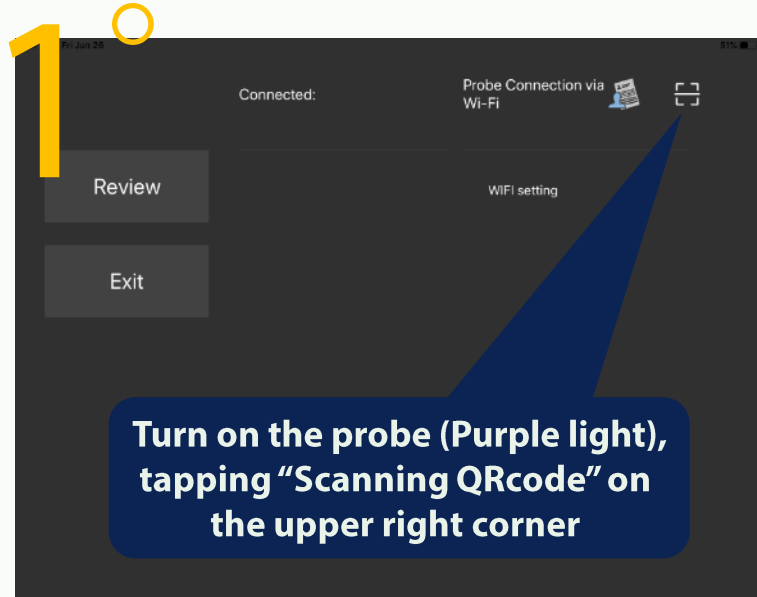


**Purple light**  
<Power ON>  
Not connect



**White light**  
<Power ON>  
Connected

# Boot up and connection – Connection



# Boot up and connection - Improve the connection quality

### Step 1

Tap menu button when the ultrasound image runs slowly in live state

### Step 2

Select **【Change Connection Channel】**

### Step 3

Tap **【Yes】** to change the connection channel

If the ultrasound image still runs slowly, please repeat the steps above

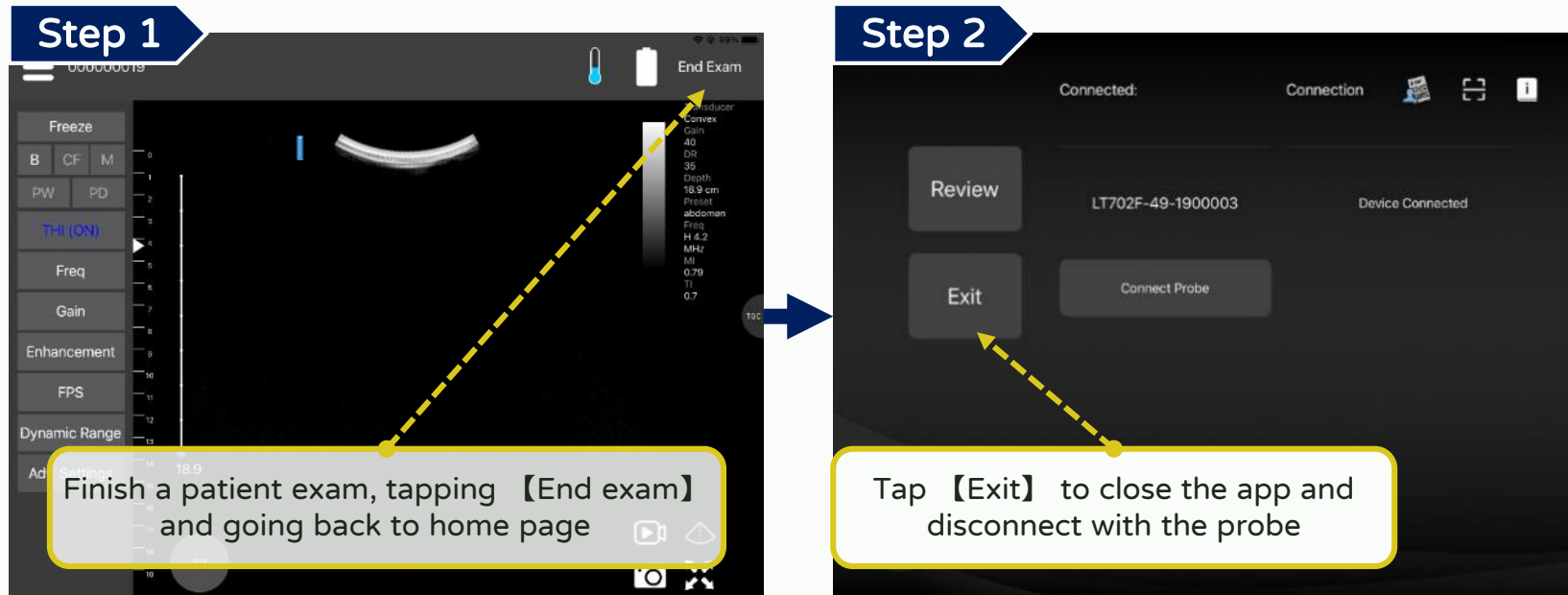
### Step 5

Please reconnect the probe in home page with tapping **【Connect Probe】**

### Step 4

After changing the connection channel successfully, you can keep it in freeze or return to home page directly



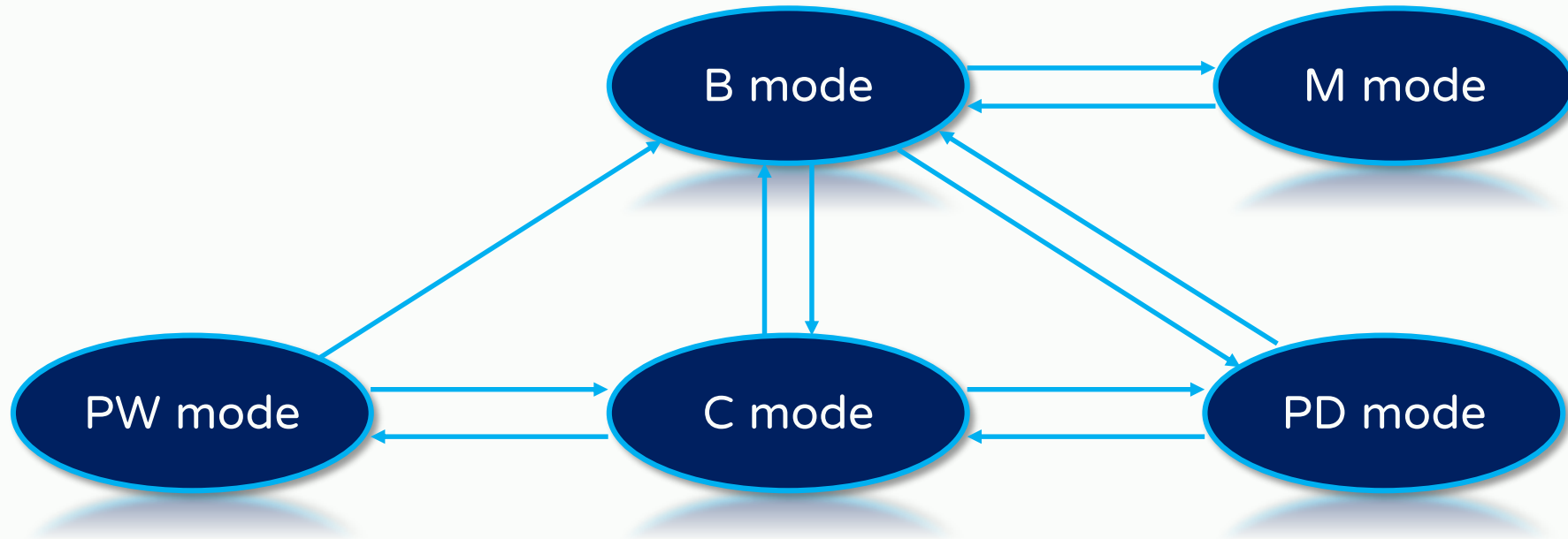


**【Scan】**

# Scan - Interface

The image shows a medical ultrasound interface with various controls and settings. The central display shows a curved scan line. The interface is annotated with callouts for various features:

- MRN**: 000000019
- Review, export**: Menu icon
- Probe info**: Temperature and battery icons
- End exam**: End Exam button
- Freeze / Live**: Freeze button
- Select Mode**: B, CF, M, PW, PD buttons
- Adjust parameter**: THI (ON), Freq, Gain, Enhancement, FPS, Dynamic Range, Adv. Settings
- Adjust depth**: Depth slider (18.9 cm)
- Select preset**: BP button
- Scan Info**: Transducer Convex, Gain 40, DR 35, Depth 18.9 cm, Preset abdomen, Freq H 4.2 MHz, MI 0.79, TI 0.7
- Adjust TGC**: TGC button
- Dual screen, Save image and video, center line, full screen**: Video, Save, Center line, Full screen icons



**“The orientation of arrow”**: It can be switched directly to the mode

# Scan - B (Brightness) mode

The image shows a three-step tutorial for adjusting the B mode scan. Each step is presented in a screenshot of the device's interface, with blue arrows indicating the flow from Step 1 to Step 2, and Step 2 to Step 3.

- Step 1:** The interface shows the 'Freeze' menu with 'B' selected. A yellow callout box states: "The default is B mode".
- Step 2:** The 'Freeze' menu is expanded, and a yellow callout box points to the 'Enhancement' option, stating: "Change the parameters to adjust the image".
- Step 3:** The 'Live' menu is shown with a yellow callout box pointing to the 'Freeze' button, stating: "1. Tap [Freeze] to stop scan". Below it, another yellow callout box points to a horizontal bar at the bottom, stating: "2. Drag the bar to review the history images".

# Scan - M (Motion) mode

### Step 1

Freeze

B CF M

PW PD

Freq

Gain

Enhancement

FPS

Dynamic Range

Adv. Settings

4.7

Before switching to M mode, it should be B mode

### Step 2

Freeze

B CF M

PW PD

Gain

M PRF

Enhancement

FPS

Dynamic Range

Adv. Settings

Tap [M] to switch to M mode

### Step 3

Freeze

B CF M

PW PD

Gain

M PRF

Enhancement

FPS

Dynamic Range

Adv. Settings

Move the line to select the scan area

### Step 4

Live

Annotate

Body Mar

Save Image

M Measure

Make Video

Tap [Freeze], using [Measure] to measure heart rate

How to measure it in M mode, please refer to [P.21](#)

# Scan - CF (Color Flow) mode

\*Optional function



The diagram illustrates the process of switching to Color Flow (CF) mode and adjusting parameters in three steps:

- Step 1:** Tap **[CF]** to switch to CF mode. The interface shows the 'CF' button selected in the top left menu.
- Step 2:** Change the parameters to adjust the image. A list of parameters (Gain, Color PRF, Color Gain, Steering Angle, Color Wall Filter, Color Threshold, Adv. Settings) is shown on the left side of the screen.
- Step 3:** Tap **[Freeze]** to stop scan. Drag the bar to review the history images. The 'Freeze' button is highlighted in the top left menu, and a vertical bar on the left side of the screen is used to scroll through history images.

# Scan - PW (Pulse Wave) mode

\*Optional function



### Step 1

Before switching to PW mode, it should be CF mode

Freeze  
B CF M  
PW PD  
Gain  
Color PRF  
Color Gain  
Steering Angle  
Color Wall Filter  
Color Threshold  
Adv. Settings

Transducer: Linear  
Gain: 38  
DR: 37  
Depth: 4.7 cm  
Preset: carotid  
Freq: 5 MHz  
MI: 0.54  
TI: 0.61

### Step 2

1. Tap **【PW】** to switch to Pre-PW mode

2. Tap a position to confirm the flow with LOI

3. Tap **【PW Enter】**

Freeze  
B CF M  
PW PD  
Gain  
PW Enter  
PW Angle  
PW Gate

Transducer: Linear  
Gain: 38  
DR: 37  
Depth: 4.7 cm  
Preset: carotid  
Freq: 5 MHz  
MI: 0.54  
TI: 0.61

### Step 3

Tap a position to confirm the flow with LOI

Change the parameters to adjust the image

Freeze  
B CF M  
PW PD  
PW Exit  
PW Angle  
PW Baseline  
PW Reverse  
PW Gate  
PW PRF  
PW Gain  
PW Wall Filter  
Adv. Settings  
Auto Envelope

Transducer: Linear  
Gain: 50  
DR: 37  
Depth: 4.7 cm  
Preset: carotid  
Freq: 4.2 MHz  
MI: 0.67  
TI: 0.49

### Step 6

Tap **【Freeze】**, using **【Measure】** to measure velocity, RI, S/D...etc.

Live  
Annotate  
Body Mark  
Save Image  
Measure  
Make Video

Transducer: Linear  
Gain: 50  
DR: 37  
Depth: 4.7 cm  
Preset: carotid  
Freq: 4.2 MHz  
MI: 0.67  
TI: 0.49

PSV: 80.93 cm/s  
EDV: 23.59 cm/s  
PI: 1.50  
RI: 0.71  
V1: 12.03  
TA: 0.00  
SB: 0.43  
SD: 2.89  
ACD: 4.91 cm  
ACD1: 0.08  
ACD2: 0.08  
VFM: 55.90  
VFC: 0.57  
VFC Max: 748.57  
Exam: 1.95 min

### Step 5

1. Tap **【PW Auto Envelope】** to turn it on

2. It shows the envelopes and mark the highest and lowest point

Freeze  
B CF M  
PW PD  
PW Baseline  
PW Reverse  
PW Gate  
PW PRF  
PW Gain  
PW Wall Filter  
Adv. Settings  
Auto Envelope (ON)  
Auto Measure (ON)

Transducer: Linear  
Gain: 50  
DR: 37  
Depth: 4.7 cm  
Preset: carotid  
Freq: 4.2 MHz  
MI: 0.67  
TI: 0.49

PSV: 80.93 cm/s  
EDV: 23.59 cm/s  
PI: 1.50  
RI: 0.71  
V1: 12.03  
TA: 0.00  
SB: 0.43  
SD: 2.89  
ACD: 4.91 cm  
ACD1: 0.08  
ACD2: 0.08  
VFM: 55.90  
VFC: 0.57  
VFC Max: 748.57  
Exam: 1.95 min

### Step 4

1. Tap **【PW Auto Measure】** to turn it on

2. It shows measurement values on the right side

Freeze  
B CF M  
PW PD  
PW Angle  
PW Baseline  
PW Reverse  
PW Gate  
PW PRF  
PW Gain  
PW Exit  
PW Freq  
PW Auto Measure (ON)  
PW Auto Envelope (OFF)  
Advanced

Transducer: Linear  
Gain: 49  
DR: 37  
Depth: 4.7 cm  
Preset: Carotid  
Freq: 4.2 MHz  
MI: 0.67  
TI: 0.49

HR: 123 bpm  
PSV: 111.12 cm/s  
EDV: 23.18 cm/s  
PI: 1.25  
RI: 0.75  
V1: 15.08  
TA: 31.86  
SB: 0.57  
SD: 4.06  
ACD: 3.92  
ACD1: 0.08  
VFM: 58.23  
VFC: 0.41  
VFC Max: 88.13  
D: 1.95



# Scan - PD (Power Doppler) mode

\*Optional function



The diagram illustrates the process of switching to Power Doppler (PD) mode and adjusting parameters in three steps:

- Step 1:** Tap **PD** to switch to PD mode. The interface shows a B-mode scan with a color Doppler overlay. A yellow dashed arrow points from the 'PD' button in the left-hand menu to the 'PD' button on the screen.
- Step 2:** Change the parameters to adjust the image. A yellow box highlights the parameter menu (Gain, Color PRF, Color Gain, Steering Angle, Color Threshold, Adv. Settings) on the left. A yellow dashed arrow points from this menu to a text box.
- Step 3:** Tap **Freeze** to stop scan. Drag the bar to review the history images. A yellow box highlights the 'Freeze' button in the top-left corner. A yellow dashed arrow points from this button to a text box. Another yellow box highlights a horizontal bar at the bottom of the screen, with a yellow dashed arrow pointing to a text box.

# Scan - Select and customize a preset

### Step 1

Tap **[BP]**

### Step 2

Select a body part to scanning, it will adjust the suitable parameters automatically

### Step 3

Adjust the parameters as needed

### Step 5

Delete the customized preset with long pressing it

Cannot delete the presets of "on using" and "system default"

### Step 4

Tap **[BP]** and tap **[add]** to save the customized parameters as a preset

# Scan - Adjust focus

**Step 1**

Turn on THI or use Phased array probe in B mode

Transducer: Convex, Gain: 47, DR: 35, Depth: 18.9 cm, Preset: abdomen, Freq: H 4.2 MHz, MI: 0.79, TI: 0.7

**Step 2**

There is an arrow beside the depth ruler shows the focal point

Transducer: Convex, Gain: 47, DR: 35, Depth: 18.9 cm, Preset: abdomen, Freq: H 4.2 MHz, MI: 0.79, TI: 0.7

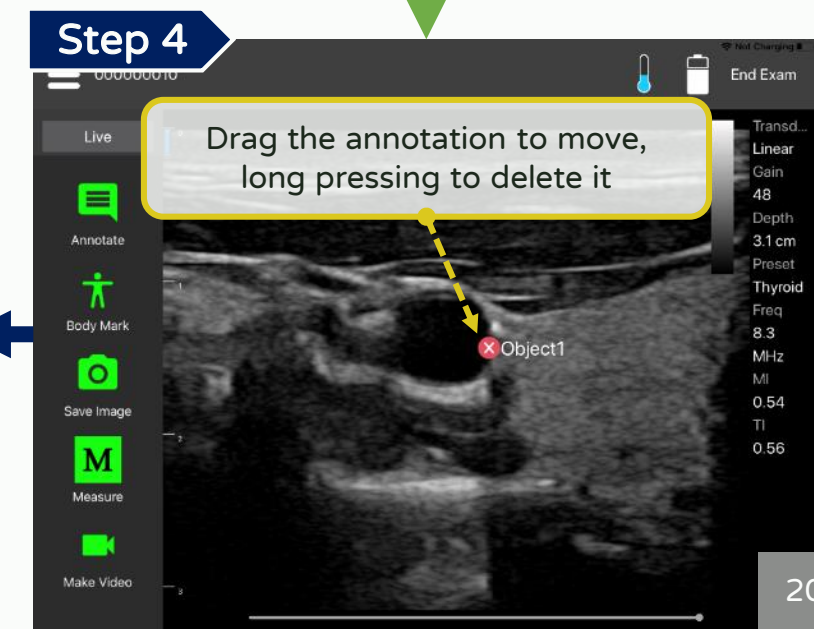
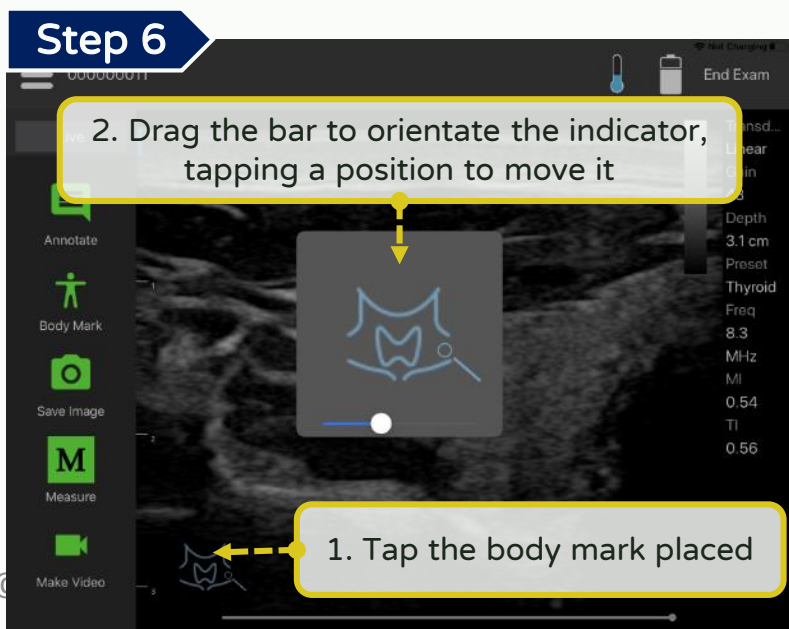
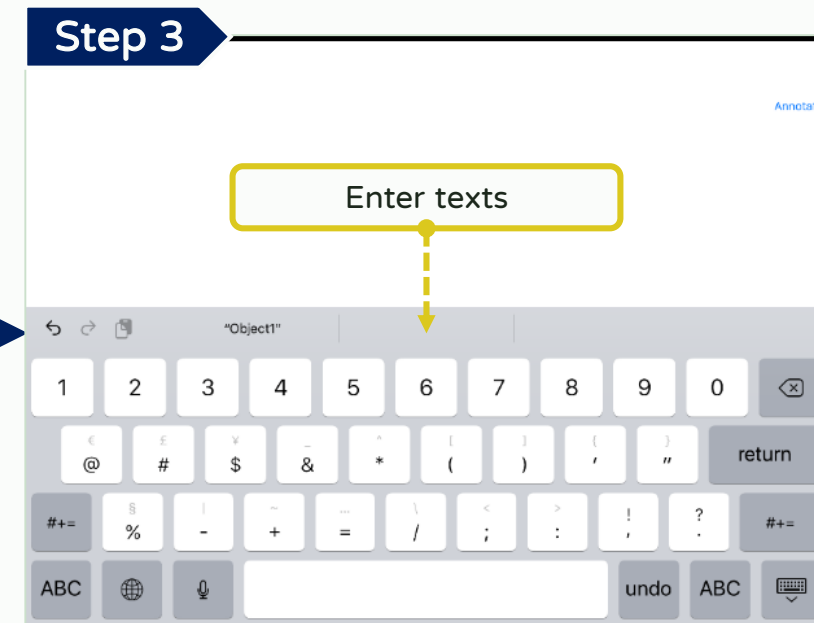
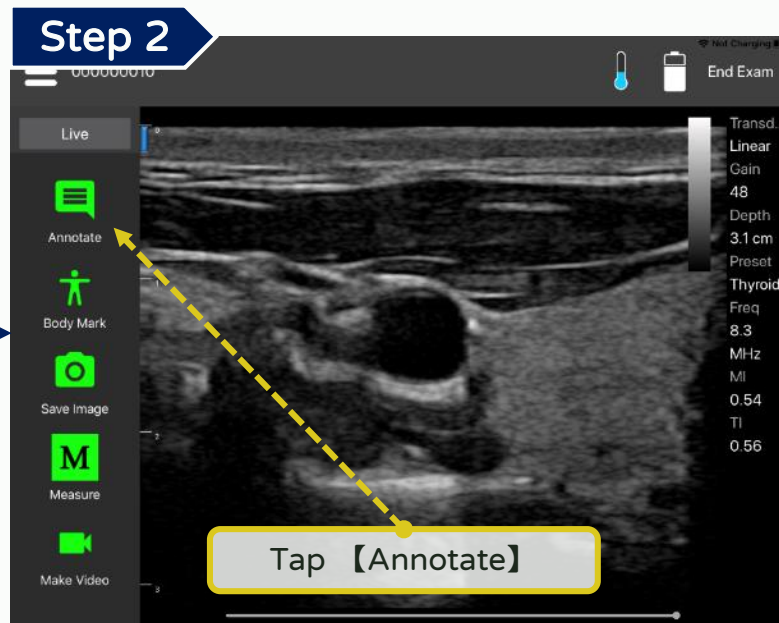
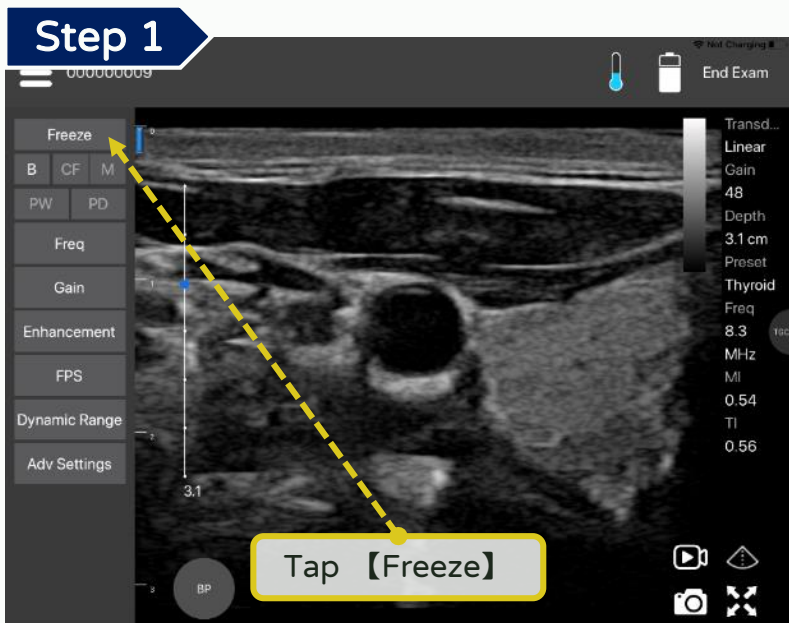
**Step 3**

Long pressing a position on the image area to focus it

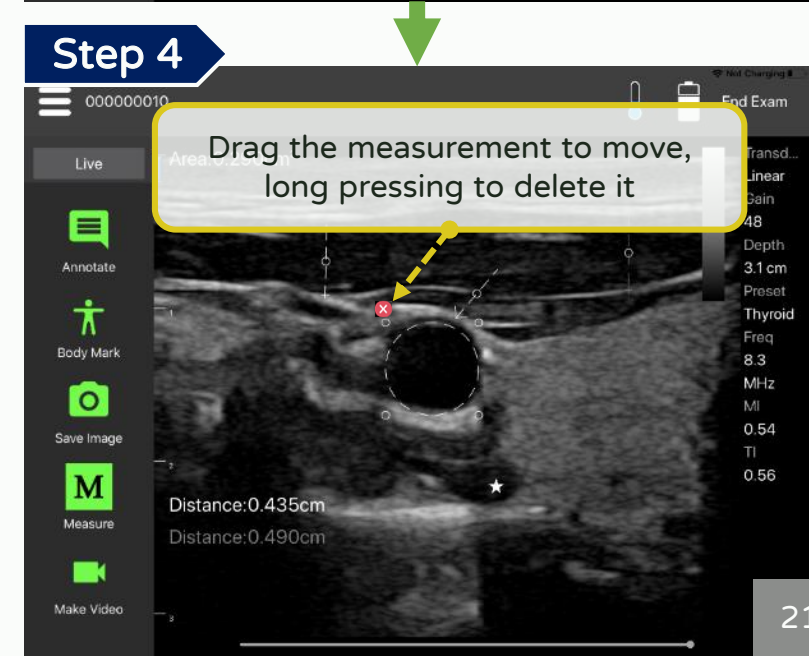
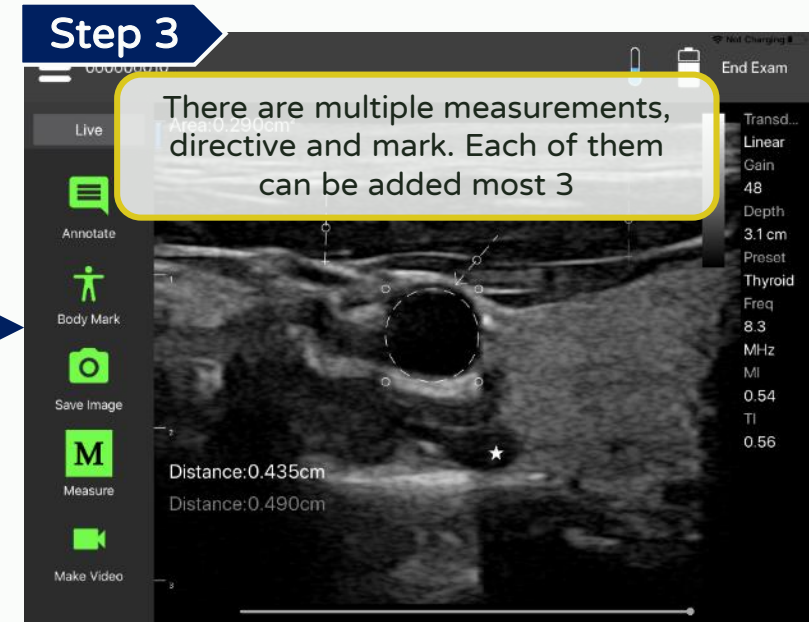
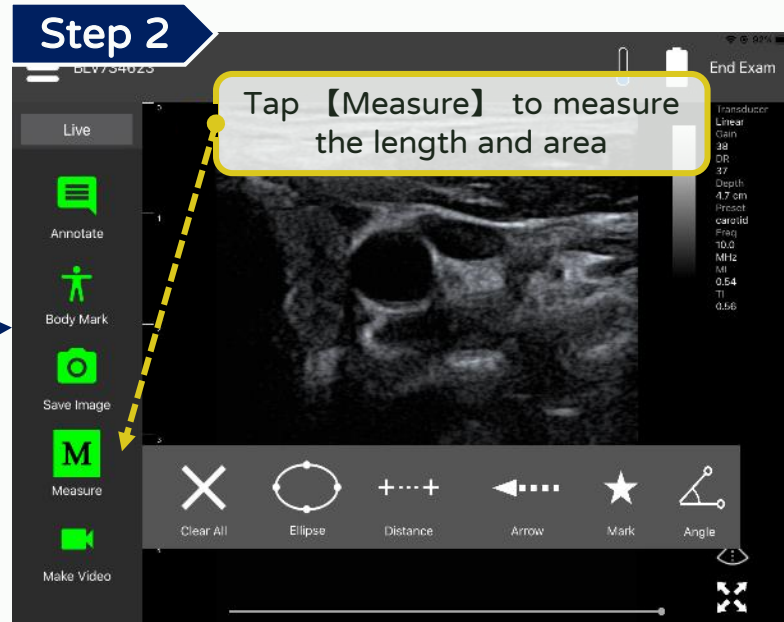
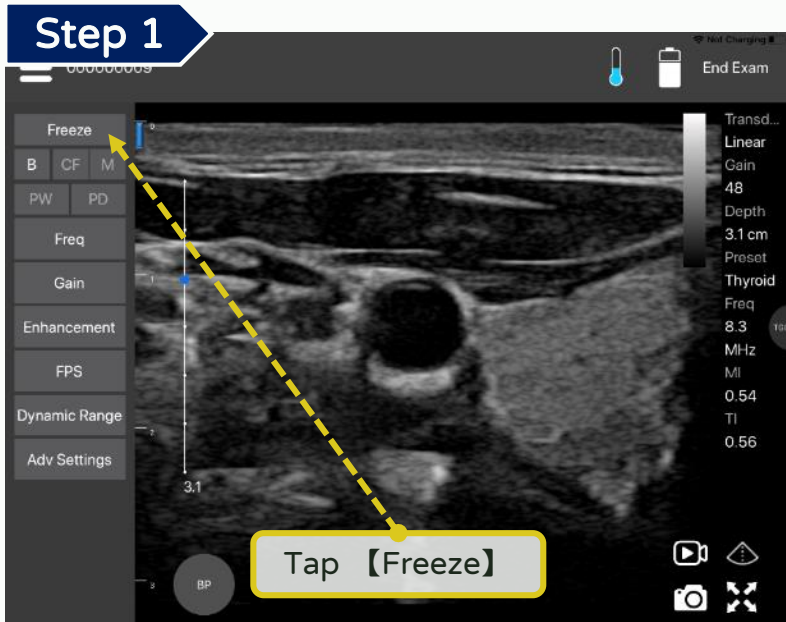
Transducer: Convex, Gain: 47, DR: 35, Depth: 18.9 cm, Preset: abdomen, Freq: H 4.2 MHz, MI: 0.79, TI: 0.7

**【 Annotate, measure and save 】**

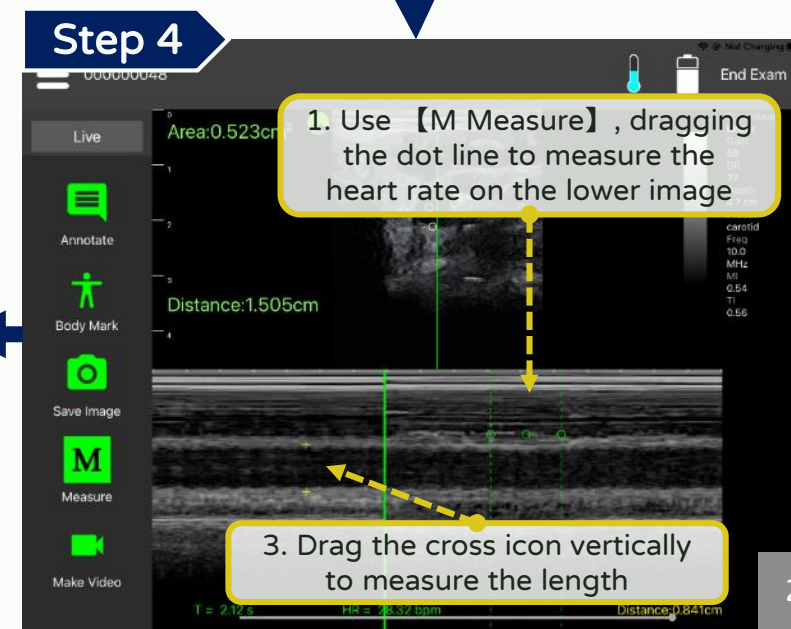
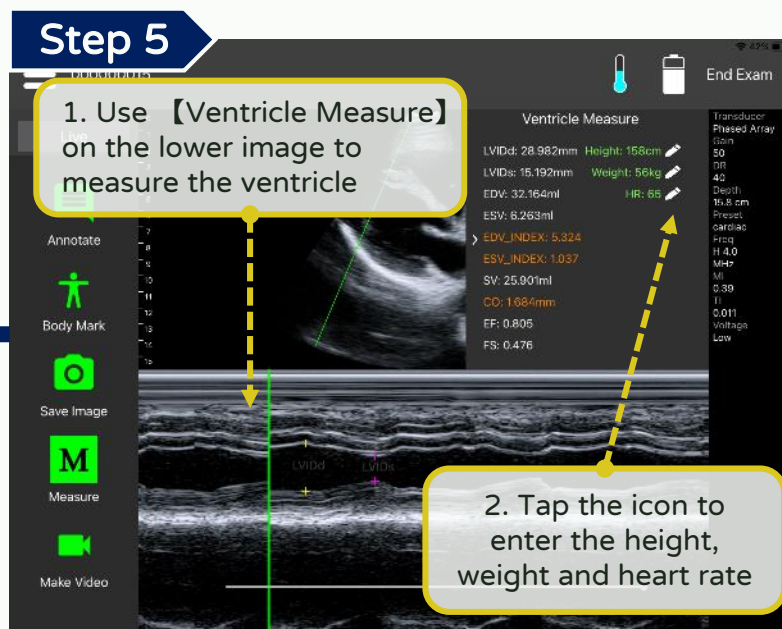
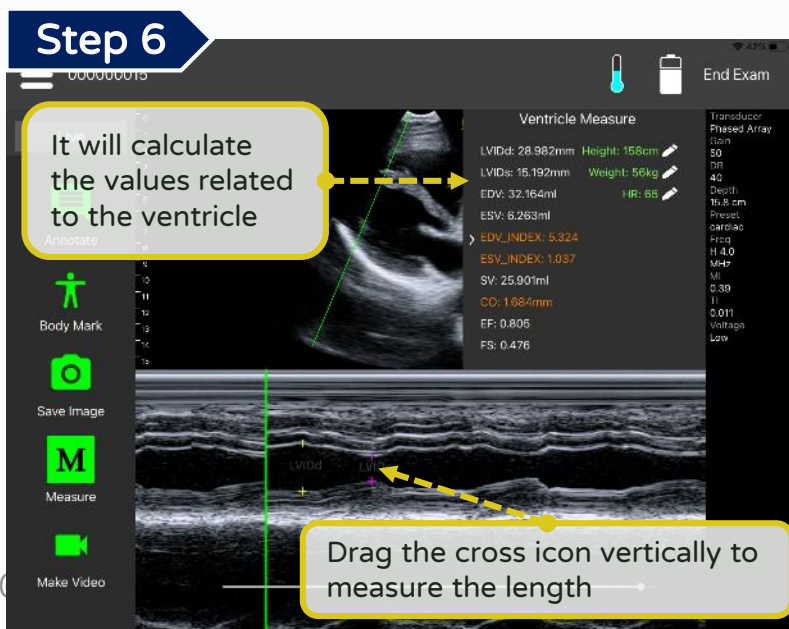
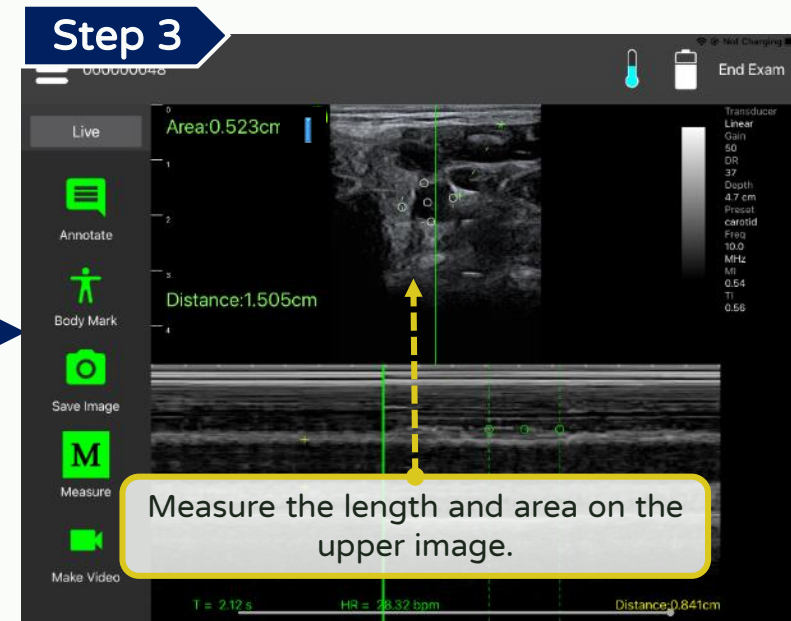
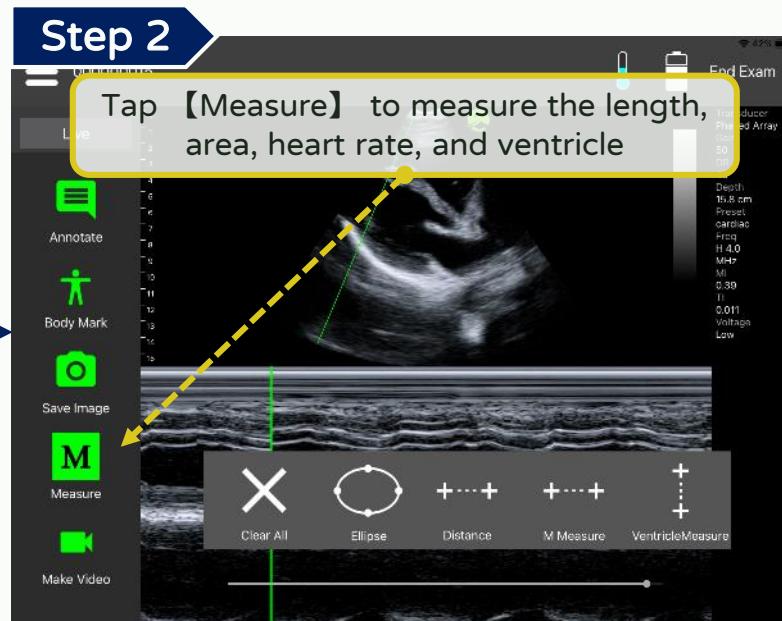
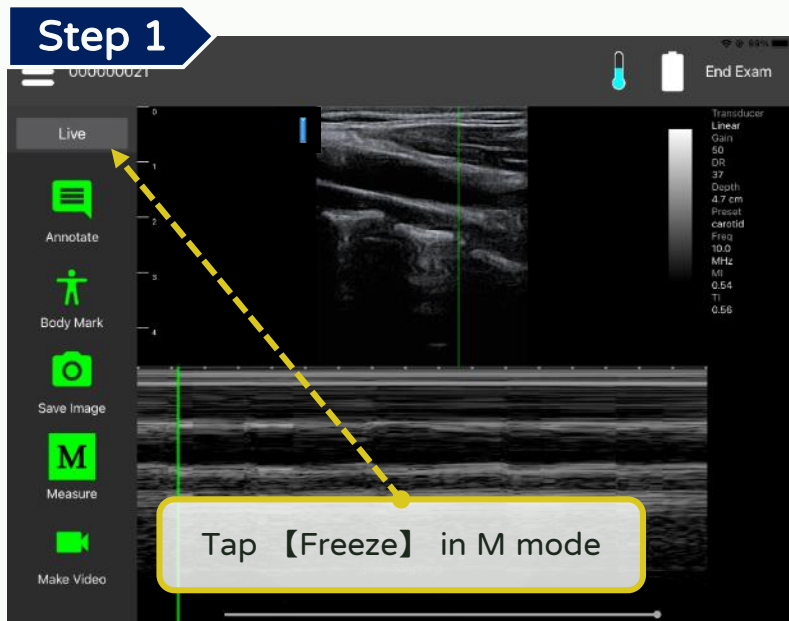
# Annotate, measure and save - Annotate & Body mark



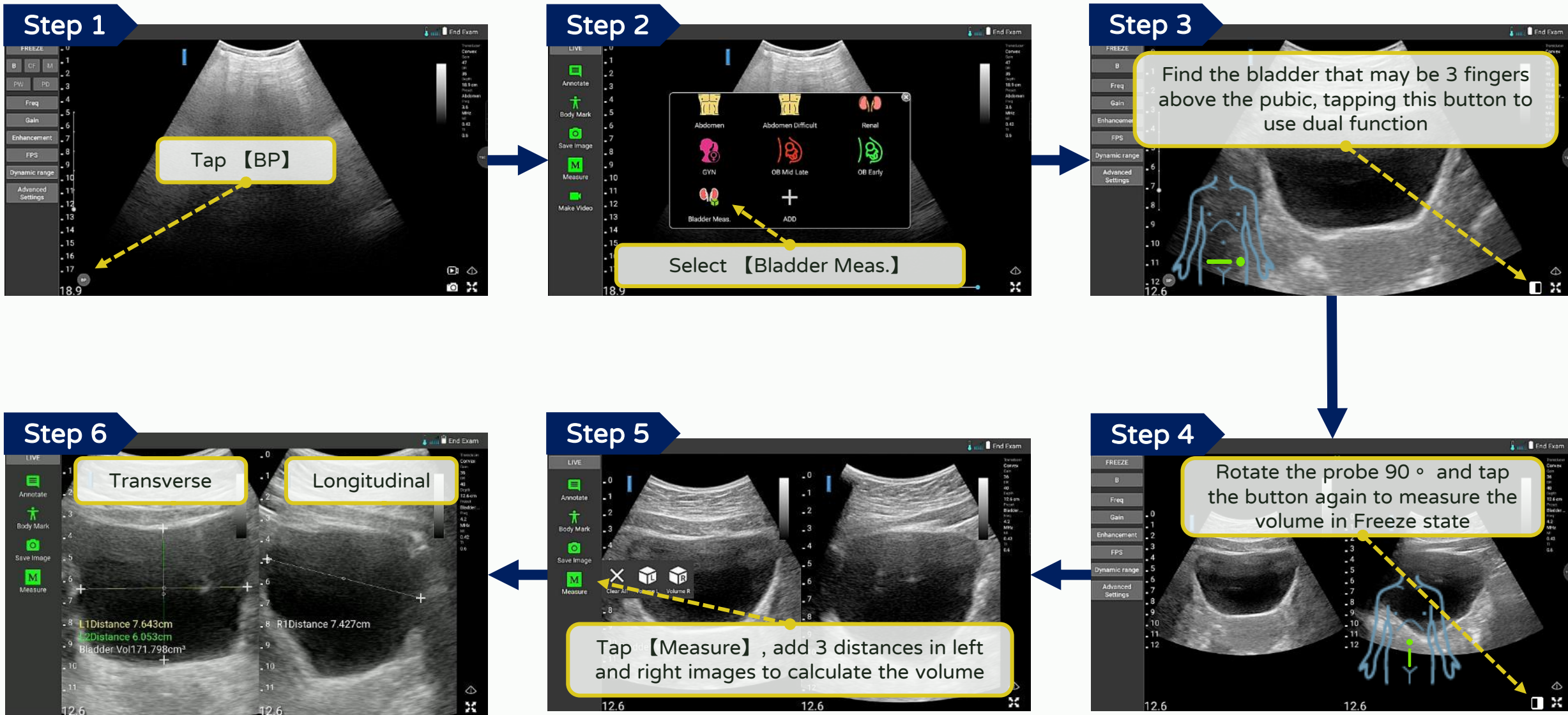
# Annotate, measure and save - Measure



# Annotate, measure and save - Measure in M mode

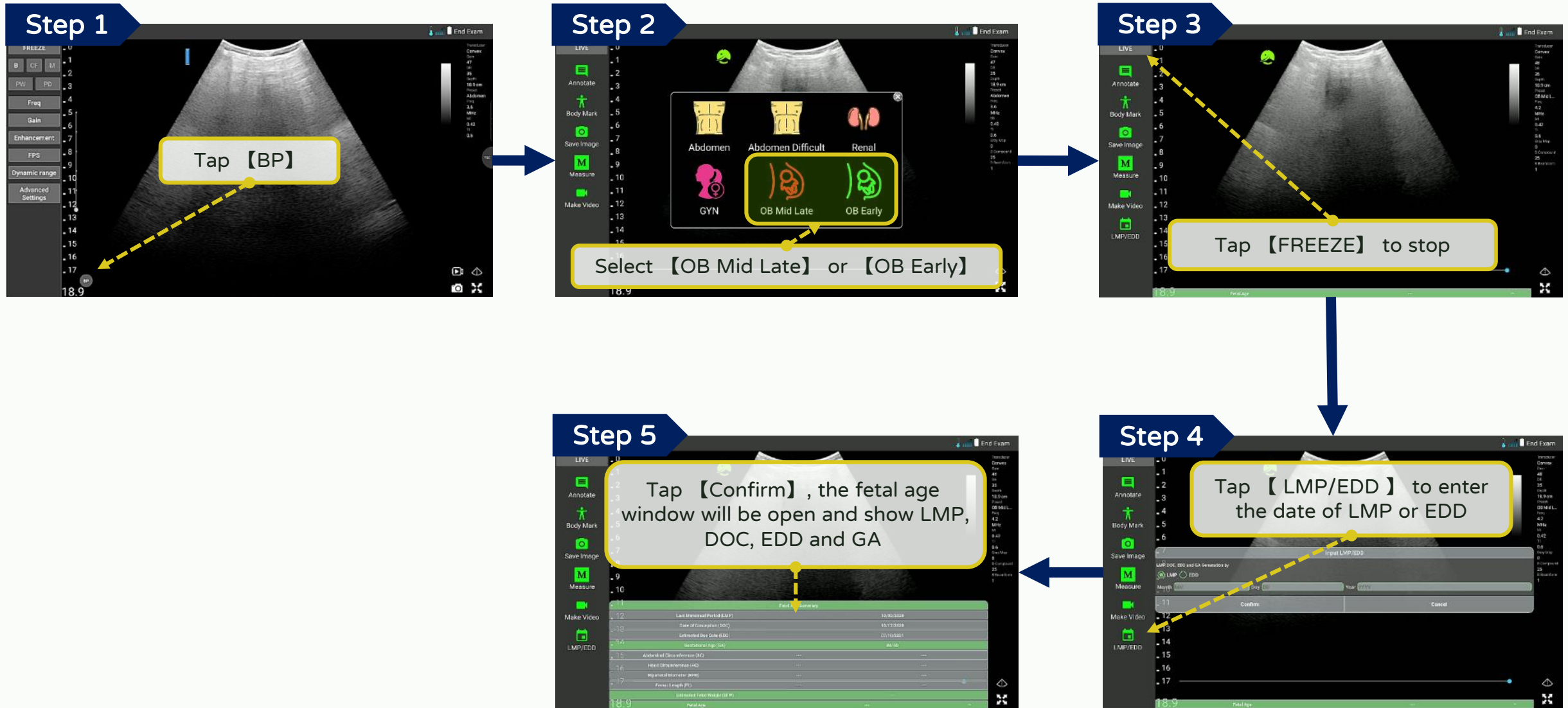


# Annotate, measure and save - Measure Bladder

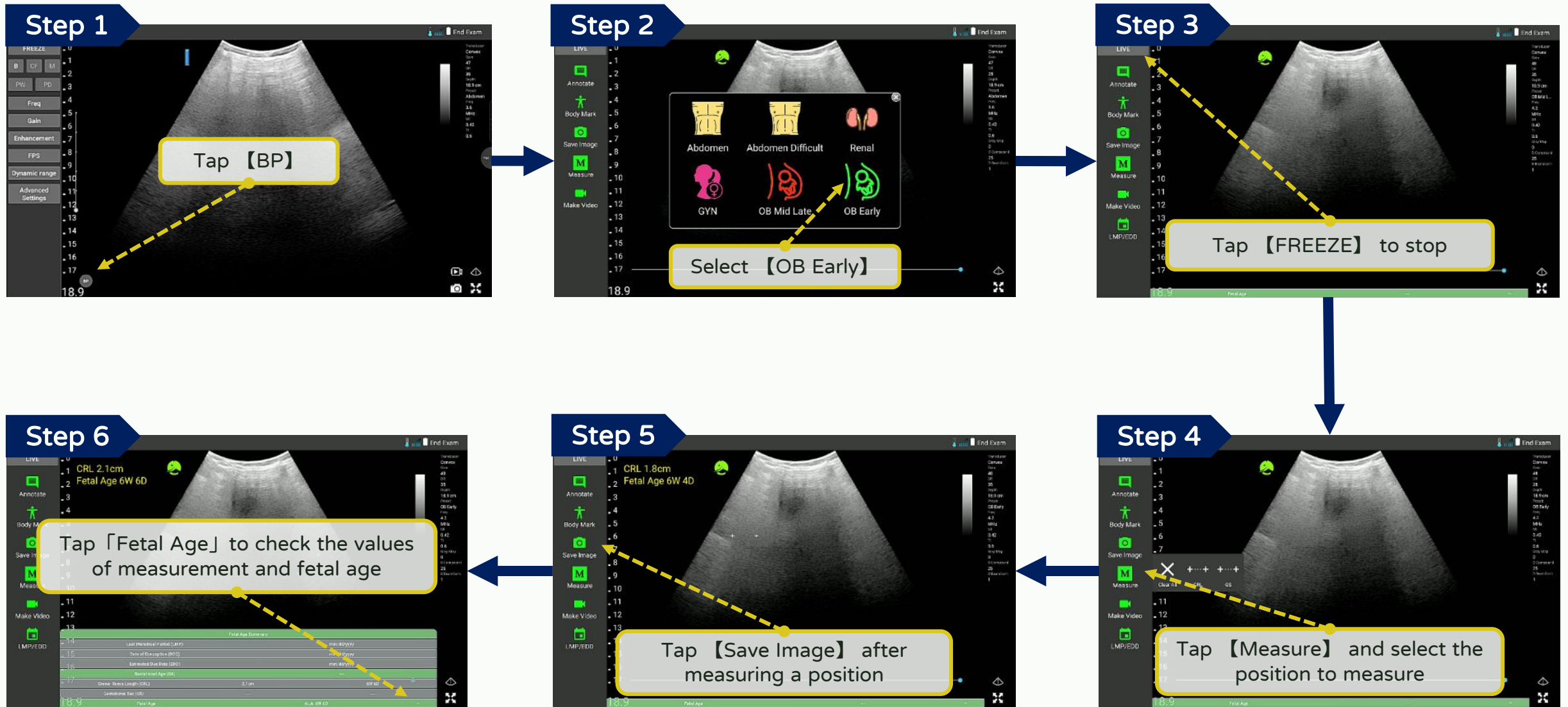




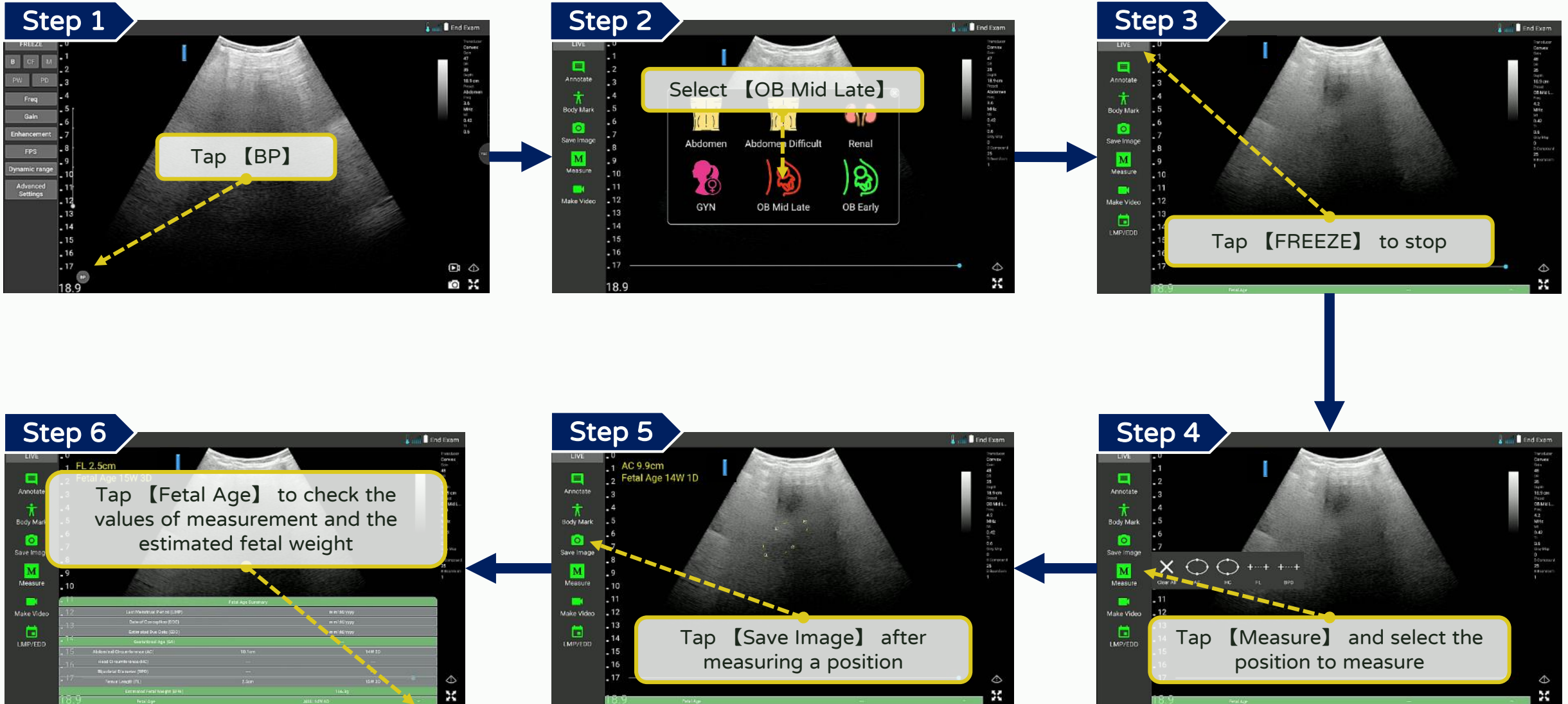
# Annotate, measure and save - Calculating the gestational age



# Annotate, measure and save - Measuring in OB early



# Annotate, measure and save - Measuring in OB mid late



# Annotate, measure and save - Measuring cardiac in B mode

### Step 1

Tap **[Freeze]** in preset Cardiac in B mode

### Step 2

Tap **[Measure]** and select **[Cardiac]** tab

### Step 3

Use ED Area, ED length, ES Area, ES Length to calculate SV, EF. It will show the values in the table.

Height:	Weight:	HR:	SV:	CO:
---	---	---	70.57 ml	---
Length: 4.98 cm	End Diastolic: 2.70 cm	End Systolic: 2.70 cm	SV: 70.57 ml	CO: ---
Area: 22.72 cm <sup>2</sup>	7.45 cm <sup>2</sup>	7.45 cm <sup>2</sup>	SI: ---	EF: 80.20 %
Volume: 87.99 ml	17.42 ml	17.42 ml	CI: ---	

### Step 5

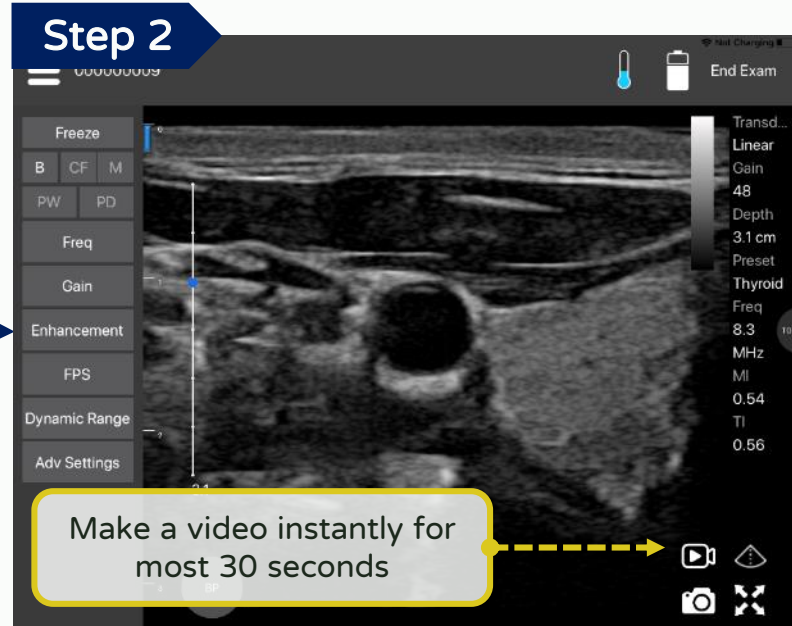
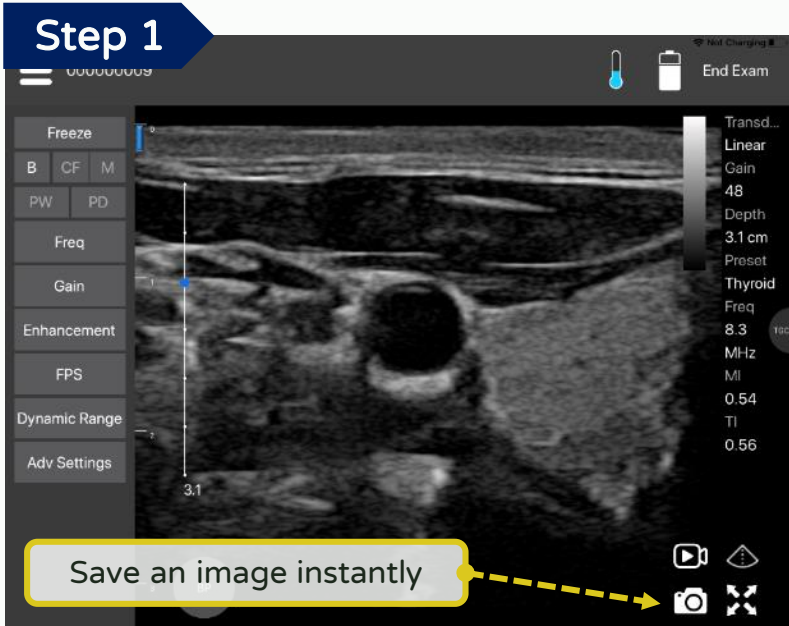
It will calculate SV, SI, CO, CI, EF and show it in the table

Height:	Weight:	HR:	SV:	CO:
158 cm	60 kg	60 bpm	70.57 ml	4.23 l/min
Length: 4.98 cm	End Diastolic: 2.70 cm	End Systolic: 2.70 cm	SV: 70.57 ml	CO: ---
Area: 22.72 cm <sup>2</sup>	7.45 cm <sup>2</sup>	7.45 cm <sup>2</sup>	SI: 47.64 ml/m <sup>2</sup>	EF: 80.20 %
Volume: 87.99 ml	17.42 ml	17.42 ml	CI: 2.86 l/min/m <sup>2</sup>	

### Step 4

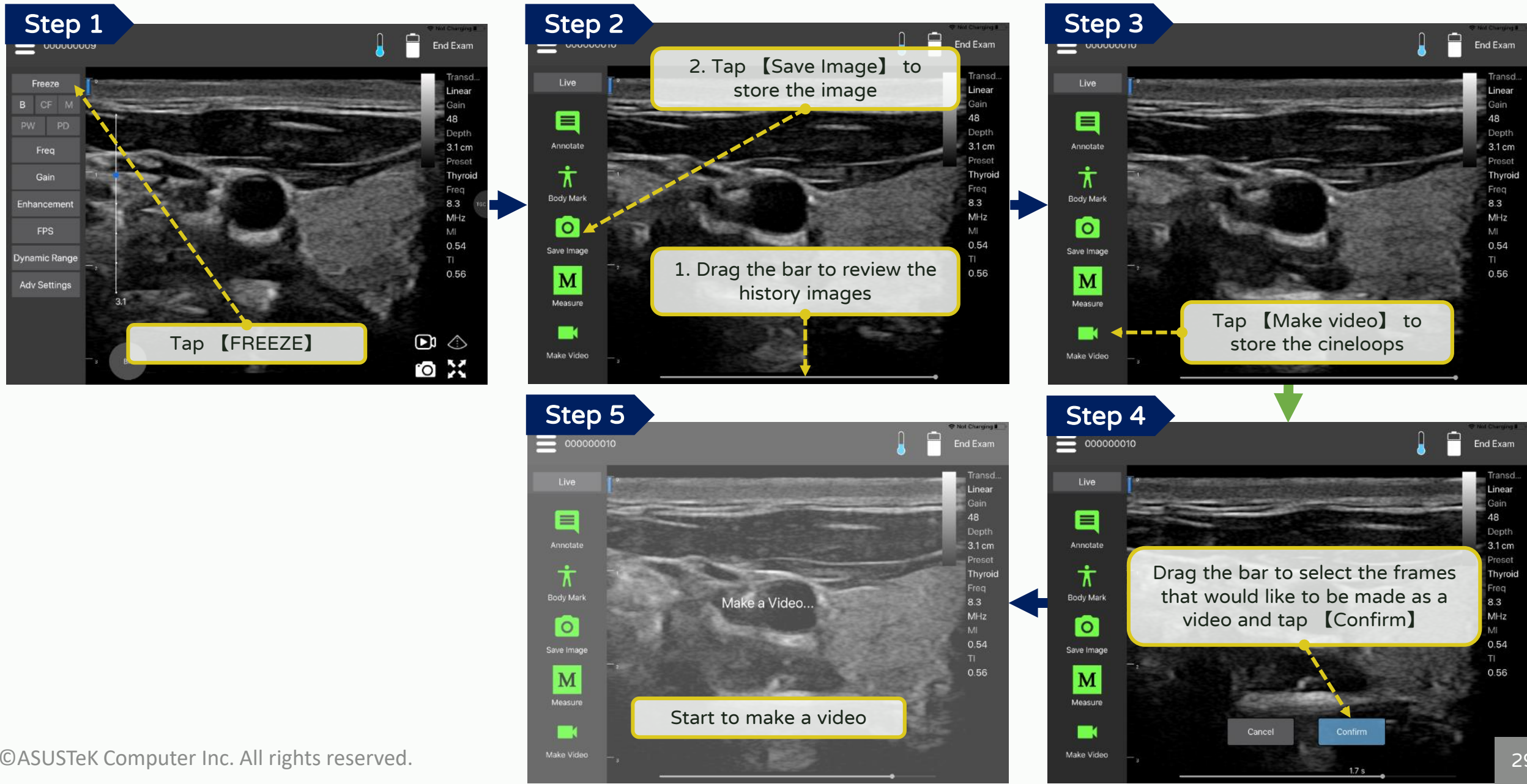
Tap the pen icon to enter BSA

# Annotate, measure and save - Save (Instant)

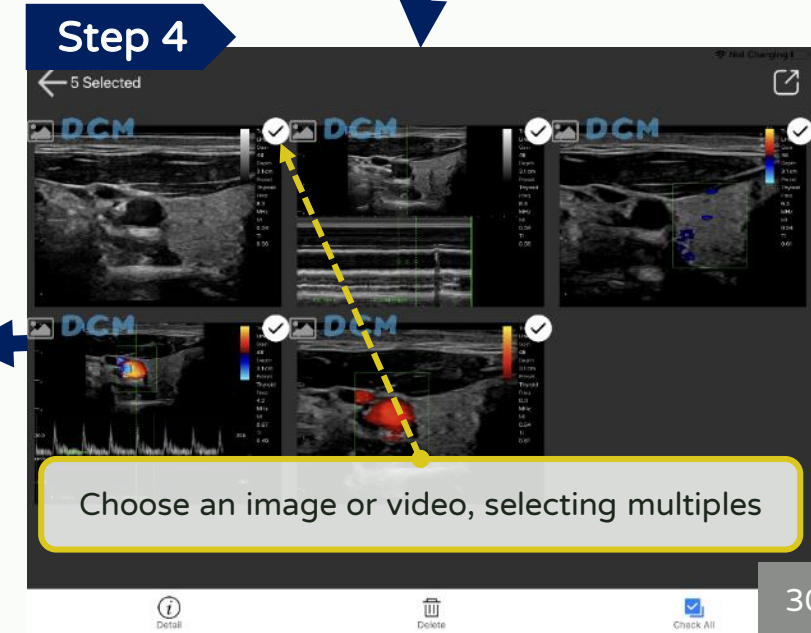
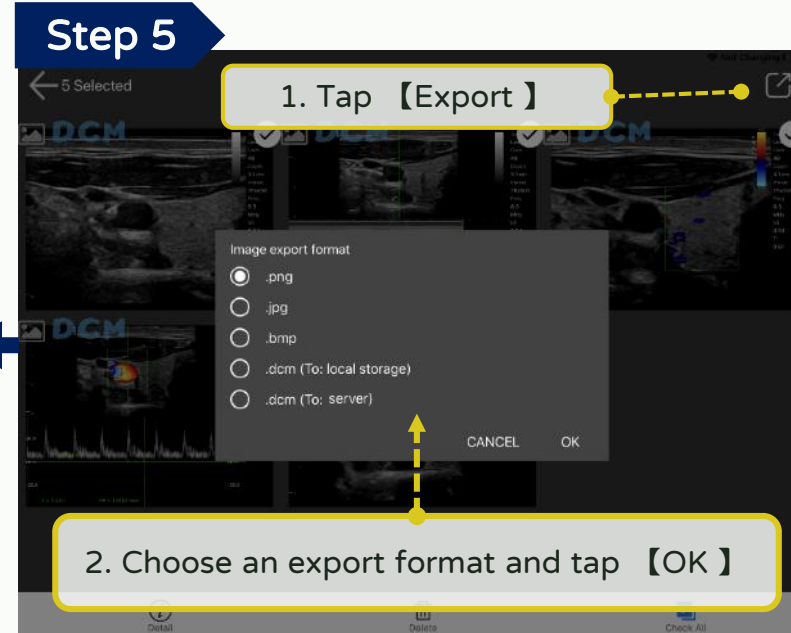
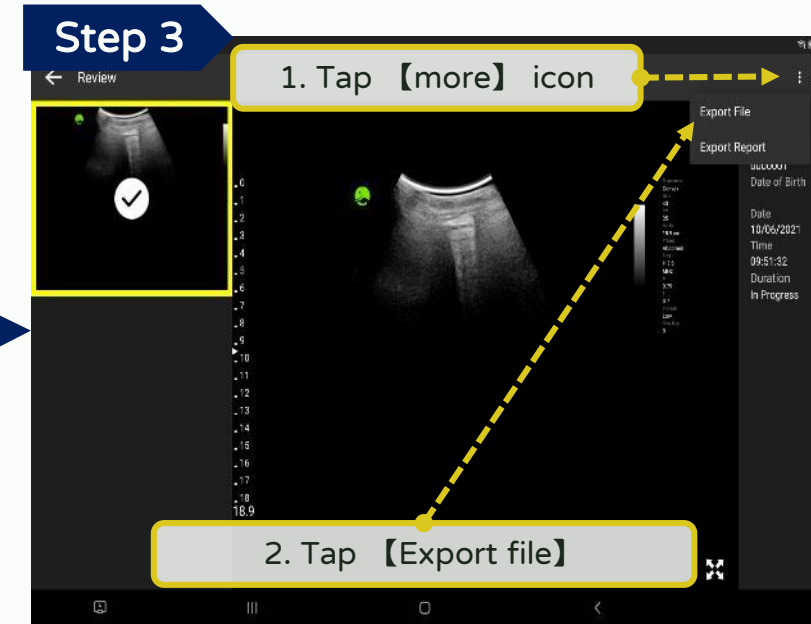
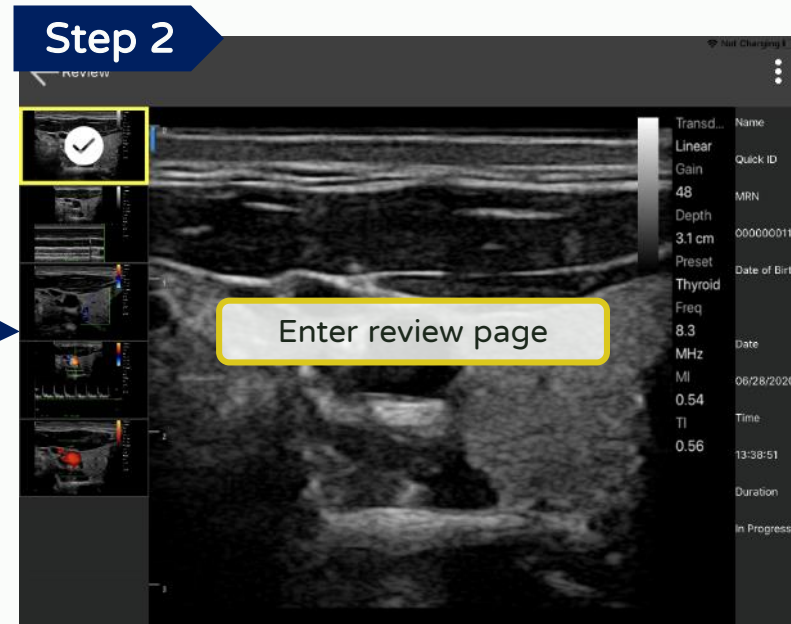
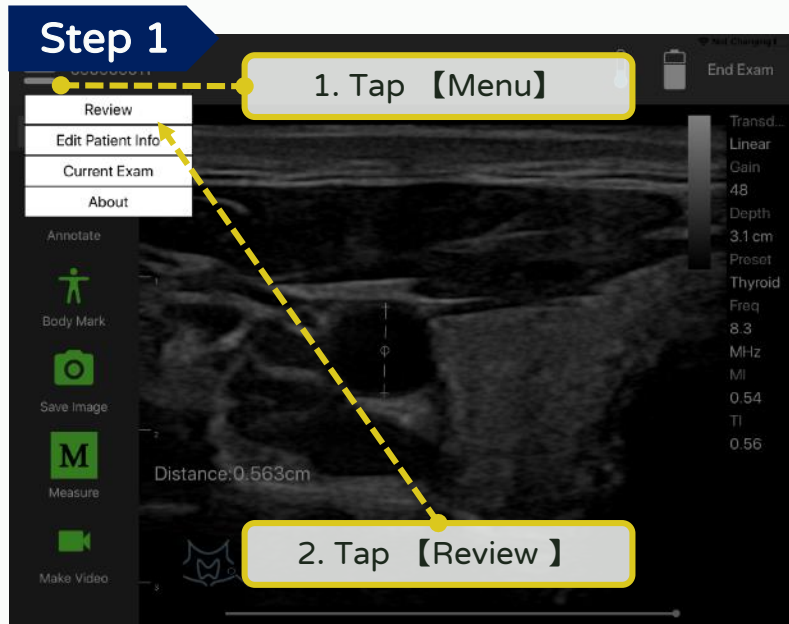


“Save an image instantly” hasn’t support the annotation and measurement etc. yet

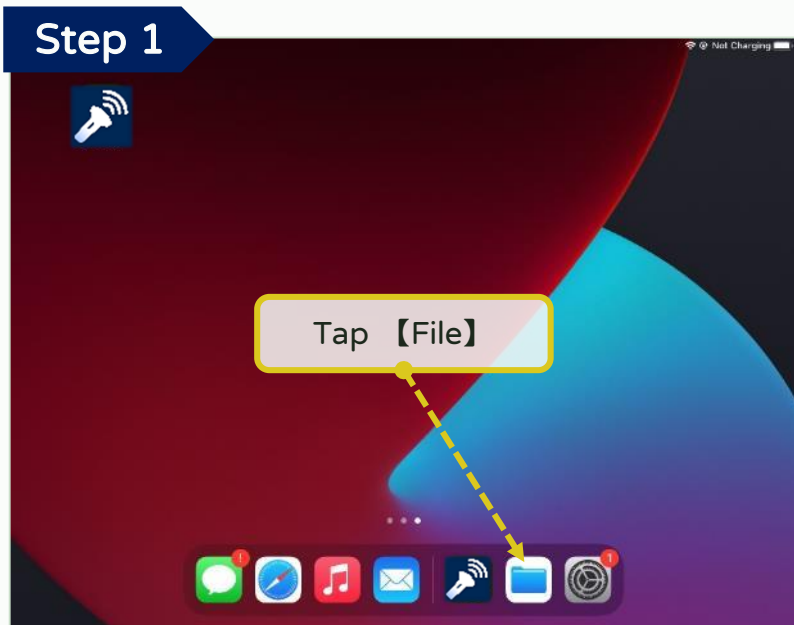
# Annotate, measure and save - Save image ( Not Instant)



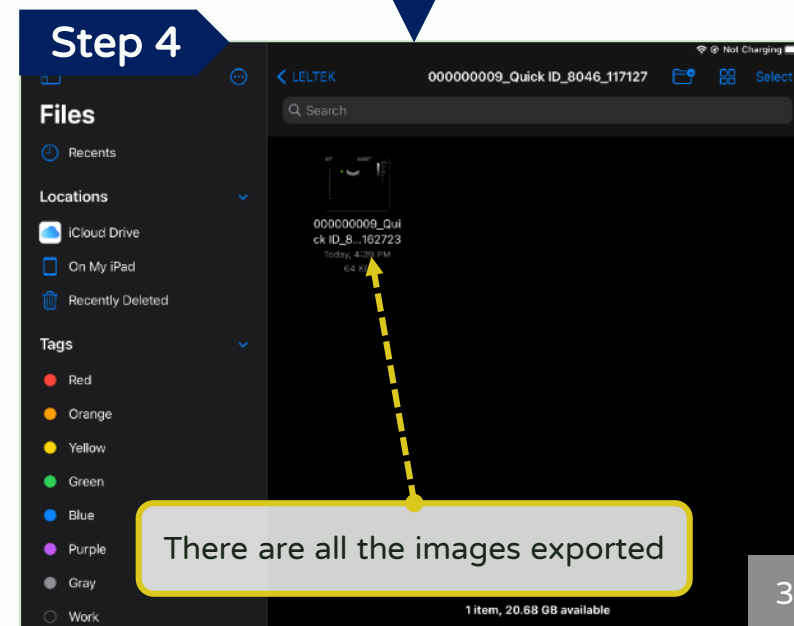
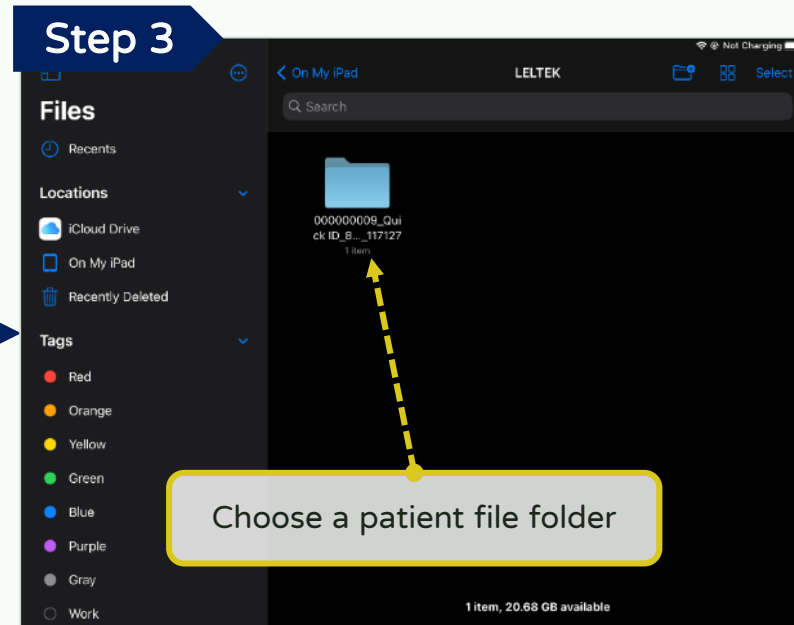
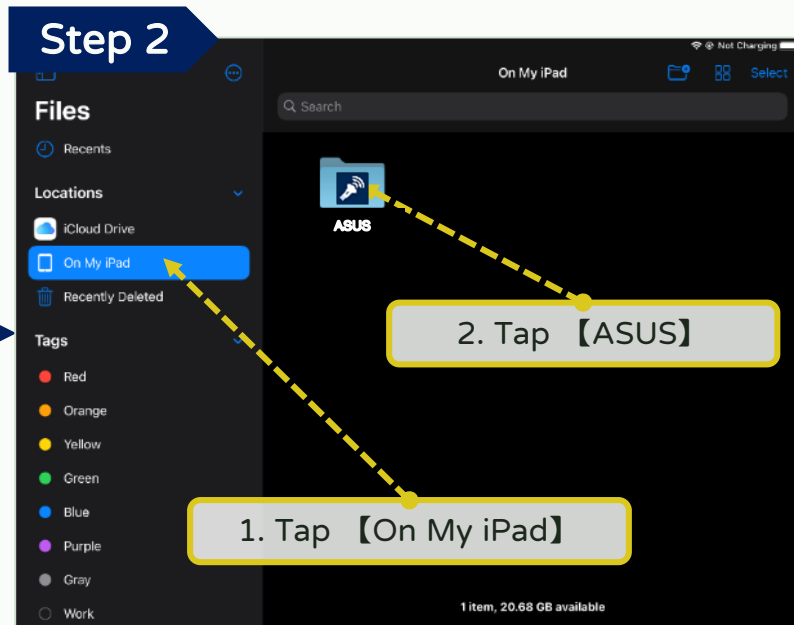
# Annotate, measure and save - Export



# Annotate, measure and save - Export path



The folder where files are placed in each smart device is different, please refer to the device manual

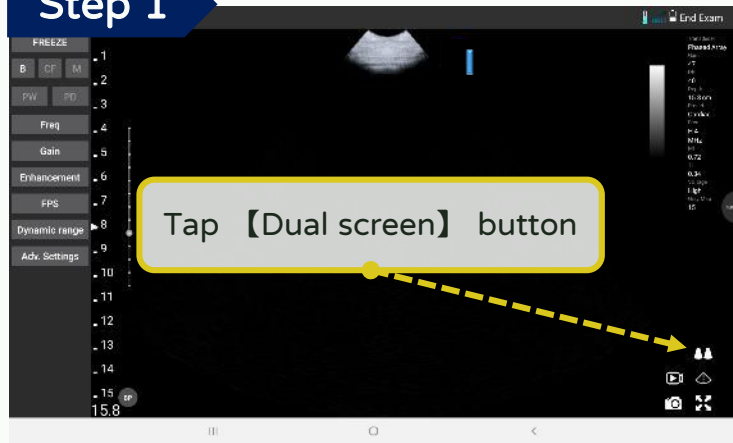




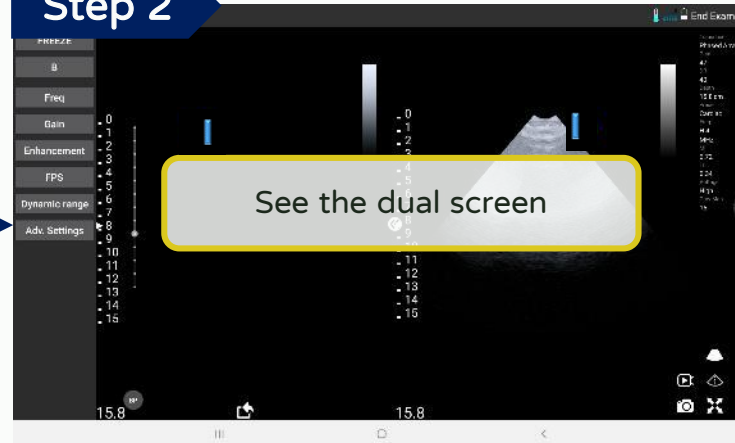
**【Dual screen】**

# Dual Screen - Turn on / off

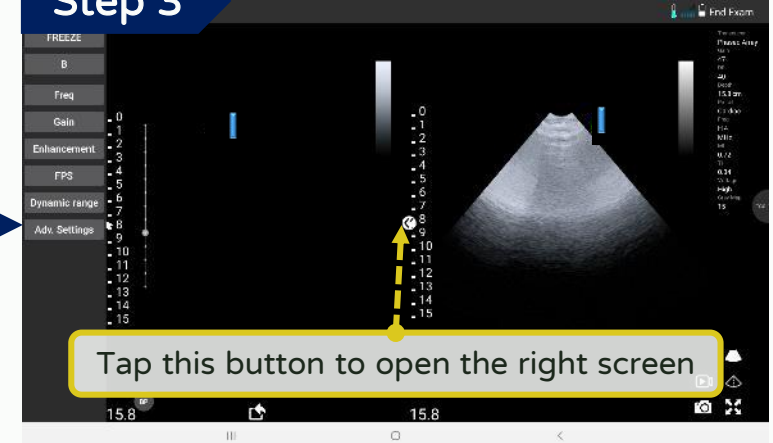
Step 1



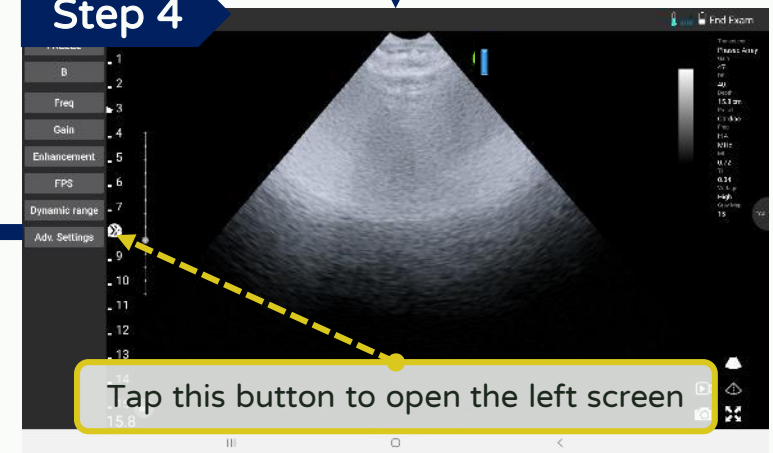
Step 2



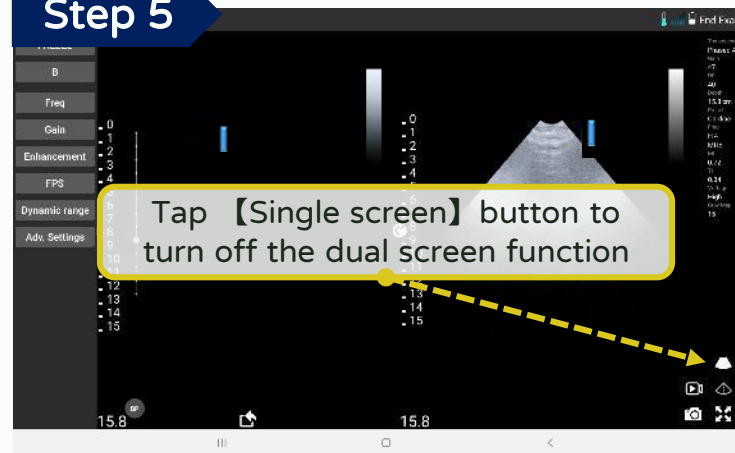
Step 3



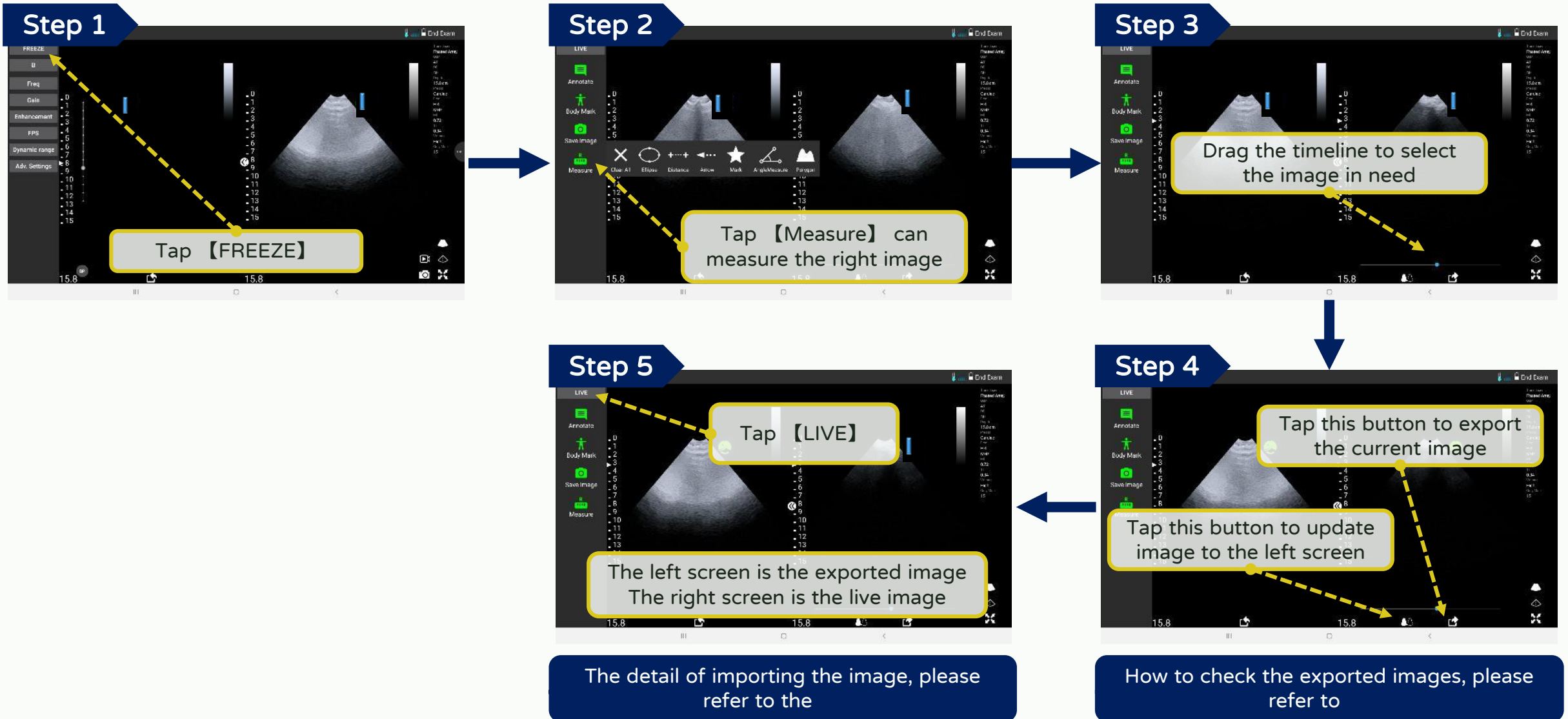
Step 4



Step 5

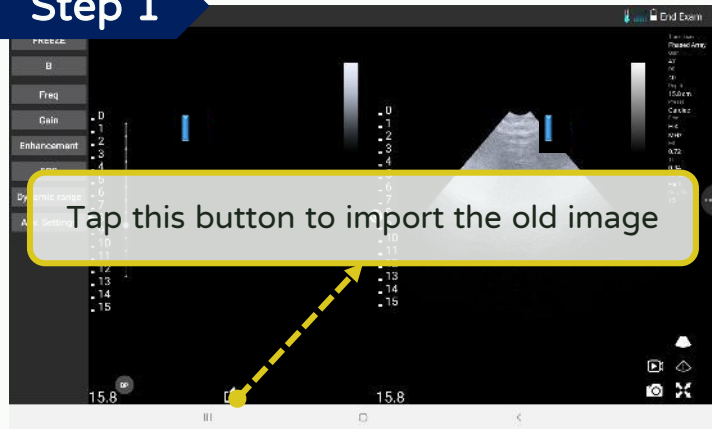


# Dual Screen - Measure and export the current image

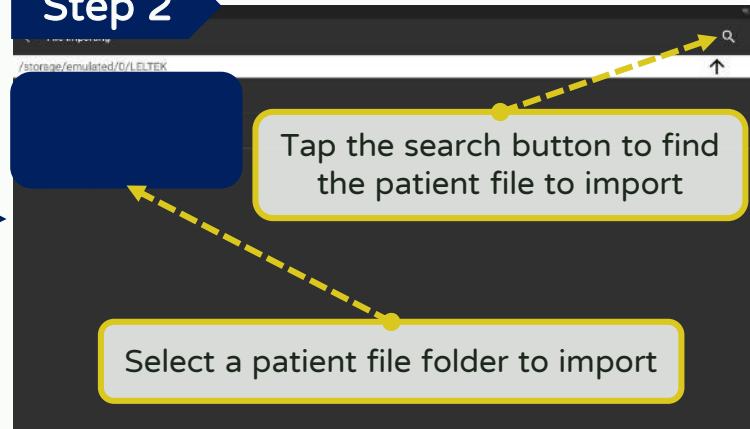


# Dual Screen - Import the old image

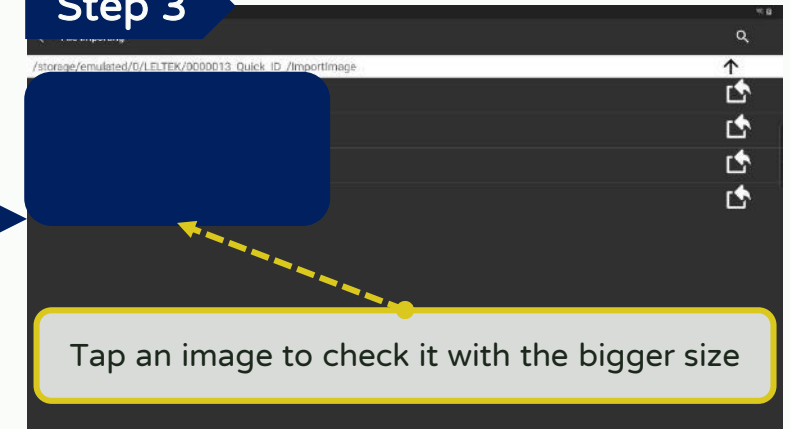
## Step 1



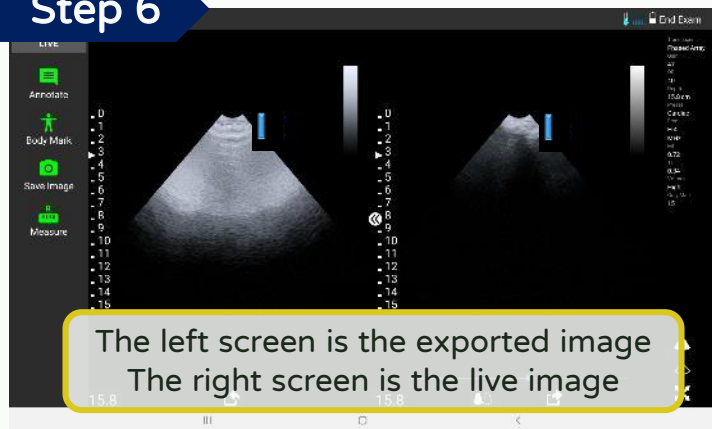
## Step 2



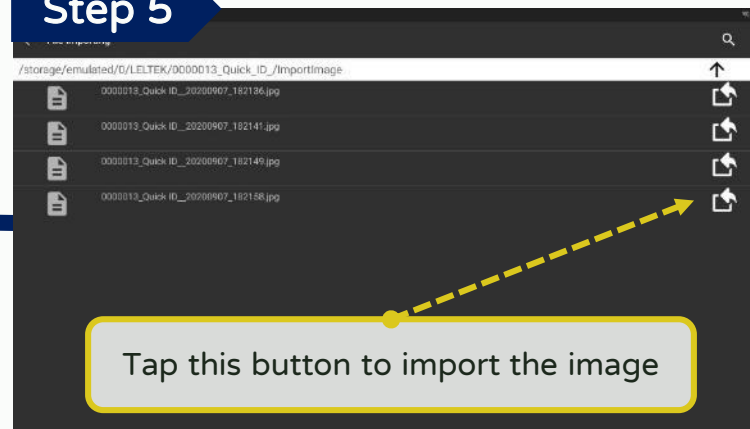
## Step 3



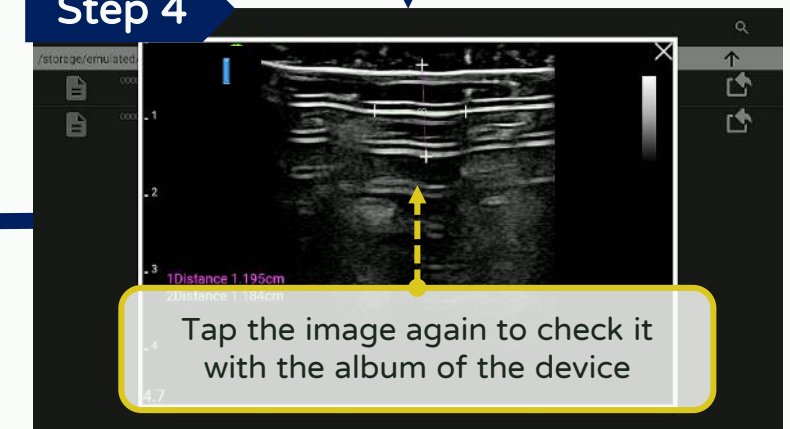
## Step 6



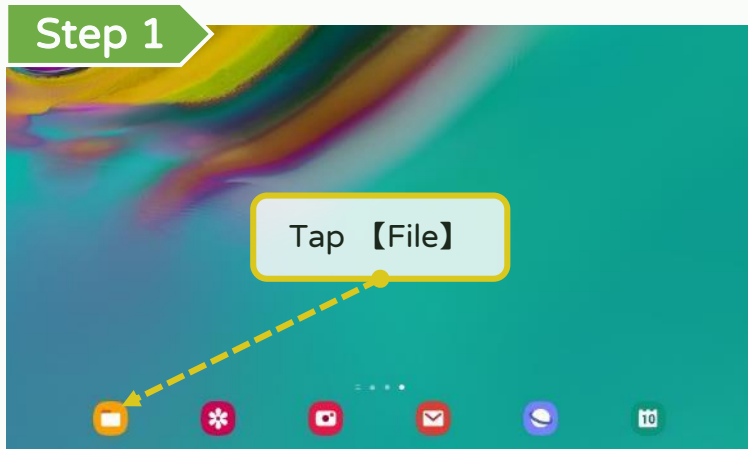
## Step 5



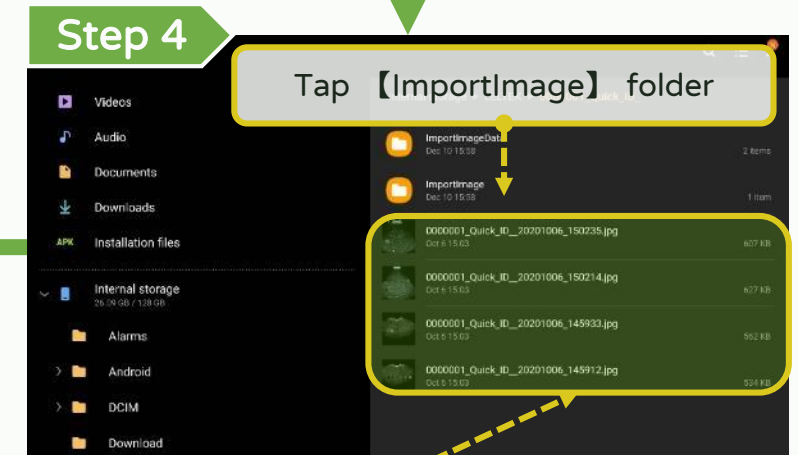
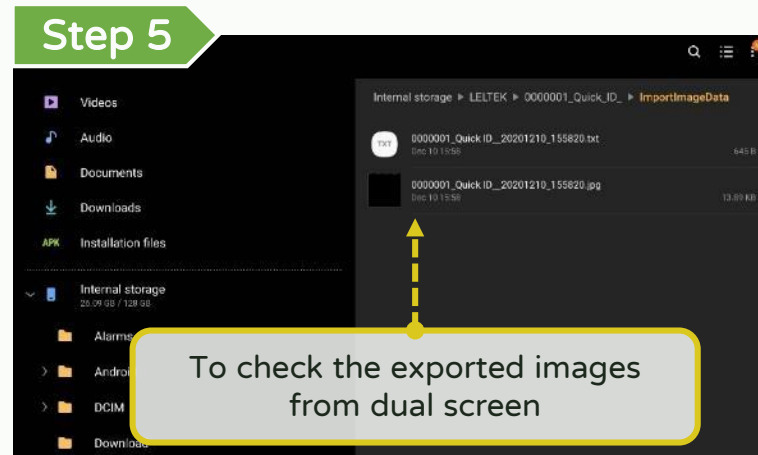
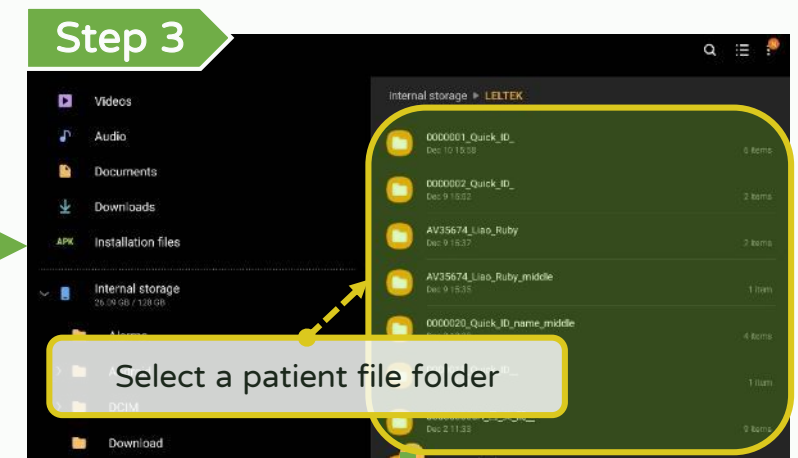
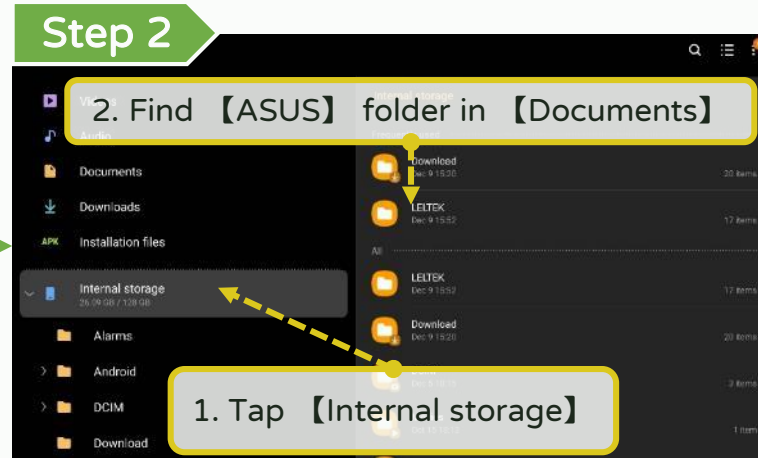
## Step 4



# Dual Screen - Check the image exported



The folder where files are placed in each smart device is different, please refer to the device manual

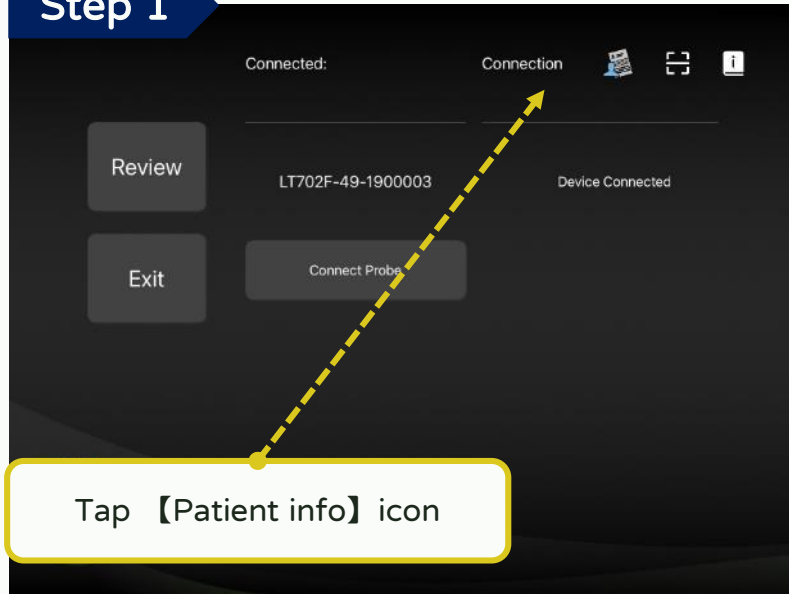


The exported images from [Export file] cannot be imported to dual screen

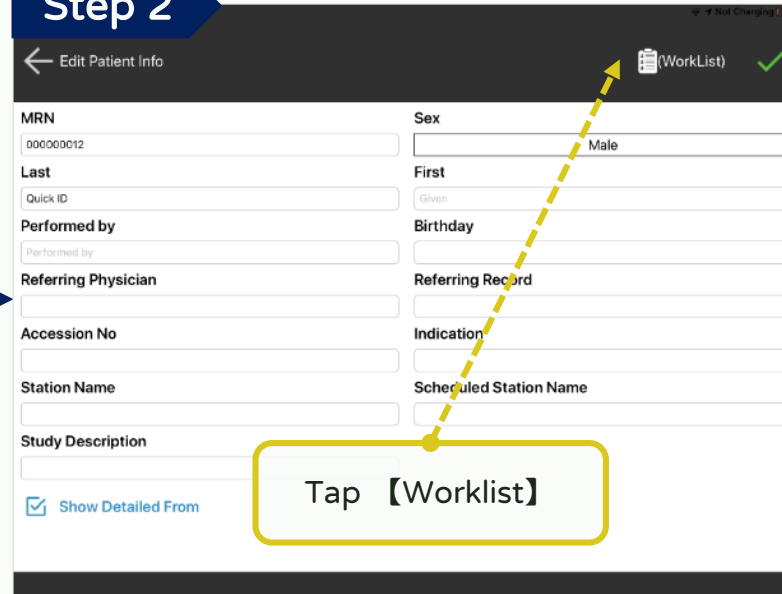
**【 DICOM support 】**

# DICOM support - Download worklist (1/2)

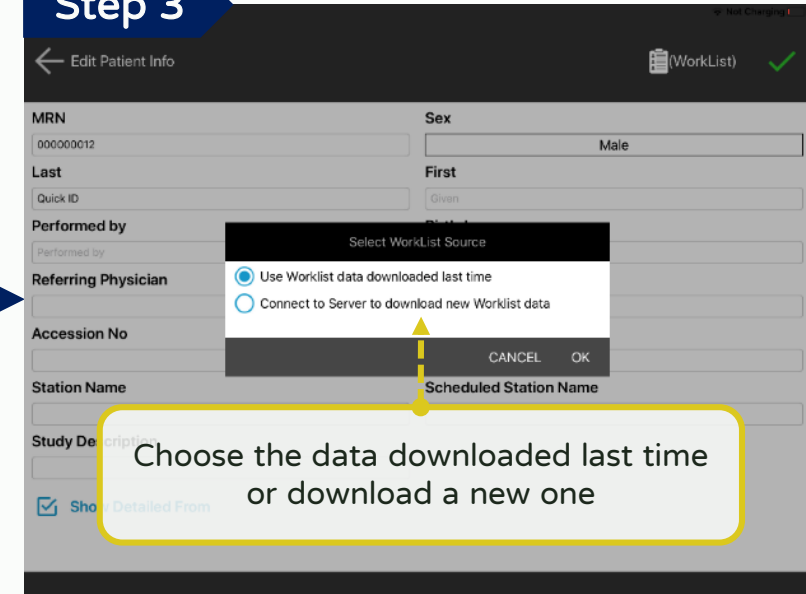
## Step 1



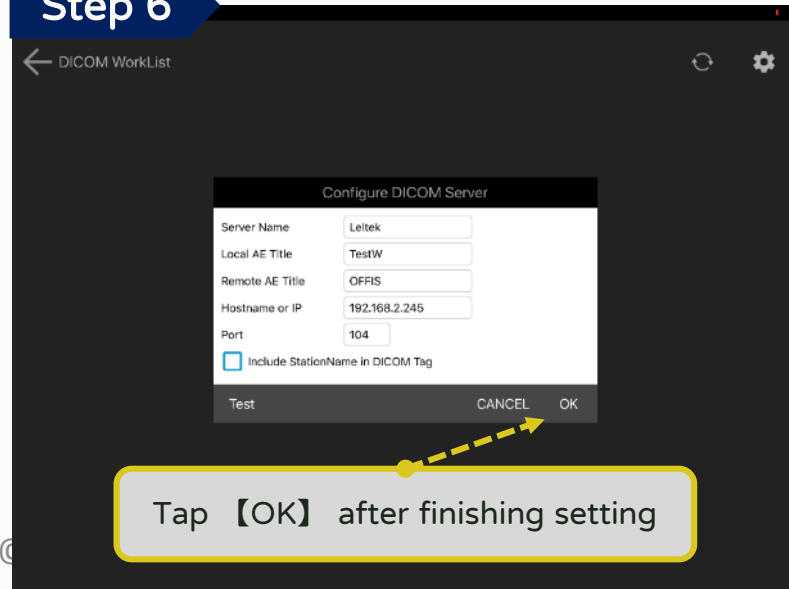
## Step 2



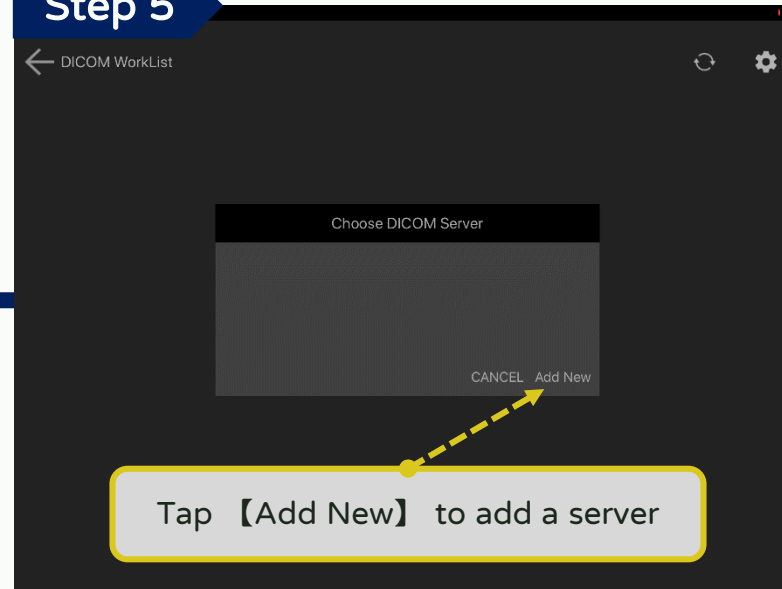
## Step 3



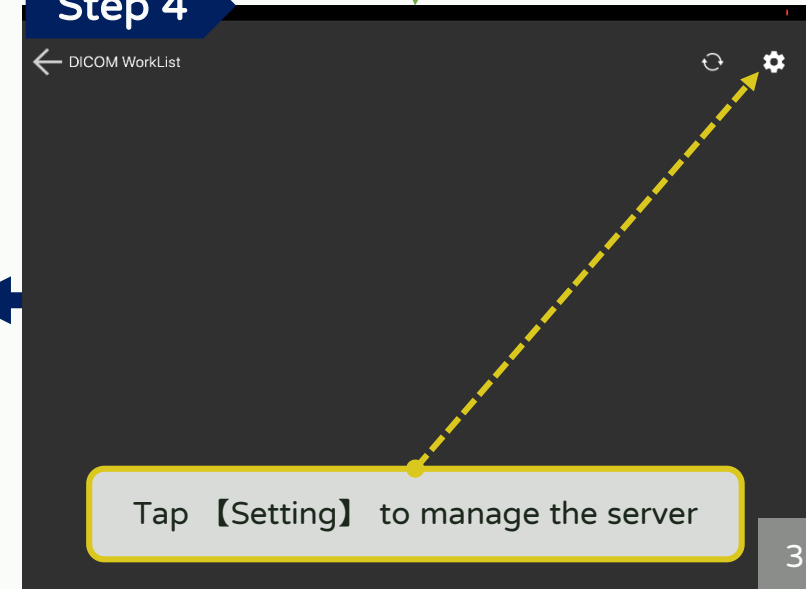
## Step 6



## Step 5



## Step 4



# DICOM support - Download worklist (2/2)

### Step 7

Tap **【Worklist Server】** after initializing the server successfully

Initialize the server successfully

### Step 8

Enter the search criteria manually or with scanning a barcode

### Step 9

Scan the barcode

### Step 12

Confirm the exam of the patient has been progress in review page

### Step 11

It will be entered to patient info page automatically

### Step 10

Choose a patient



# DICOM support - Make multi-frame DICOM

\*Optional function



**Step 1**

Tap the menu button

**Step 2**

Tap **[DICOM Recording Setting]**

**Step 3**

Tap the timeline to set the recording time

**Step 5**

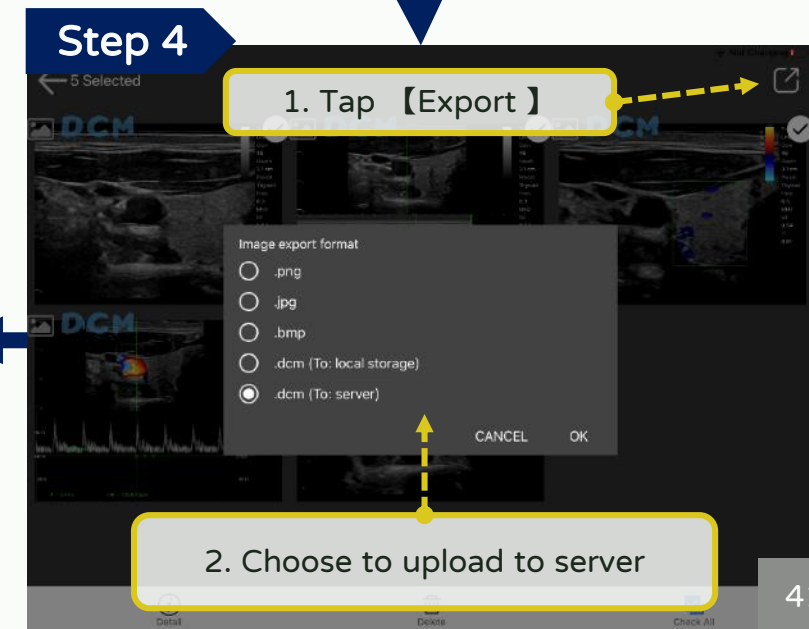
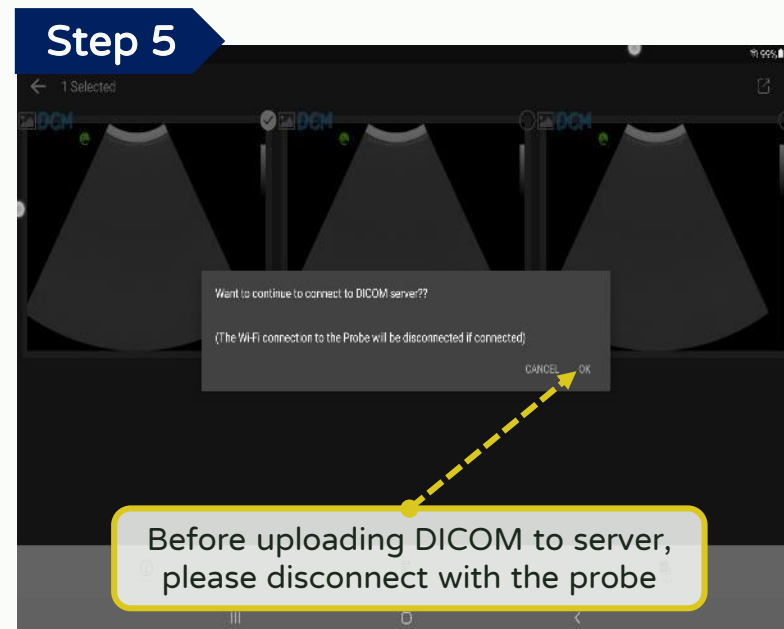
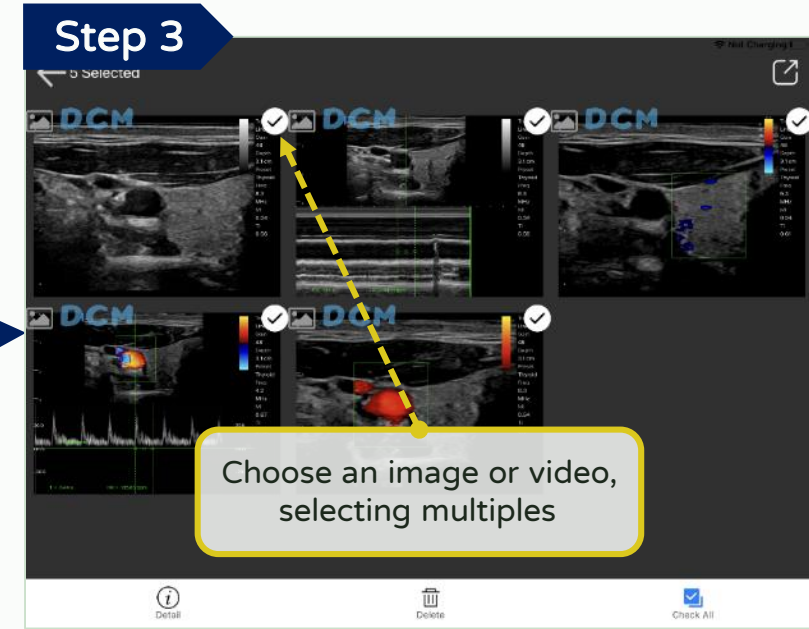
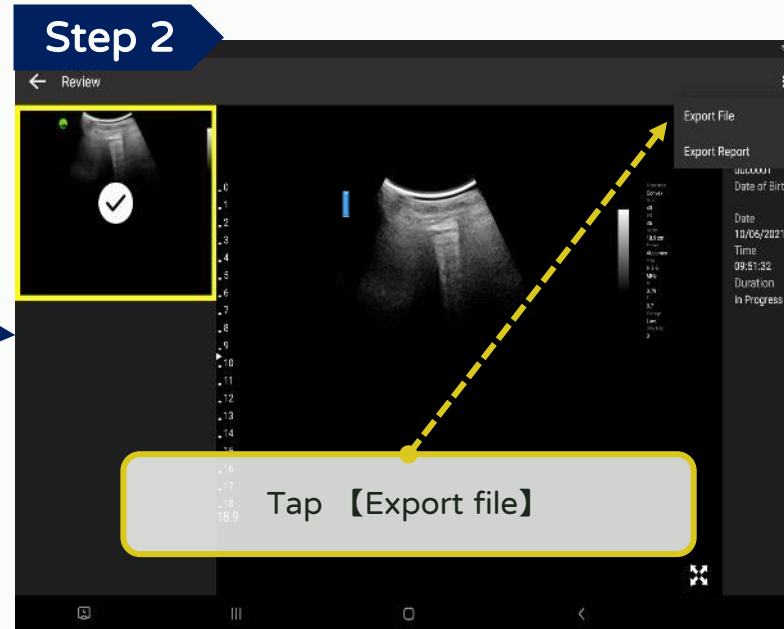
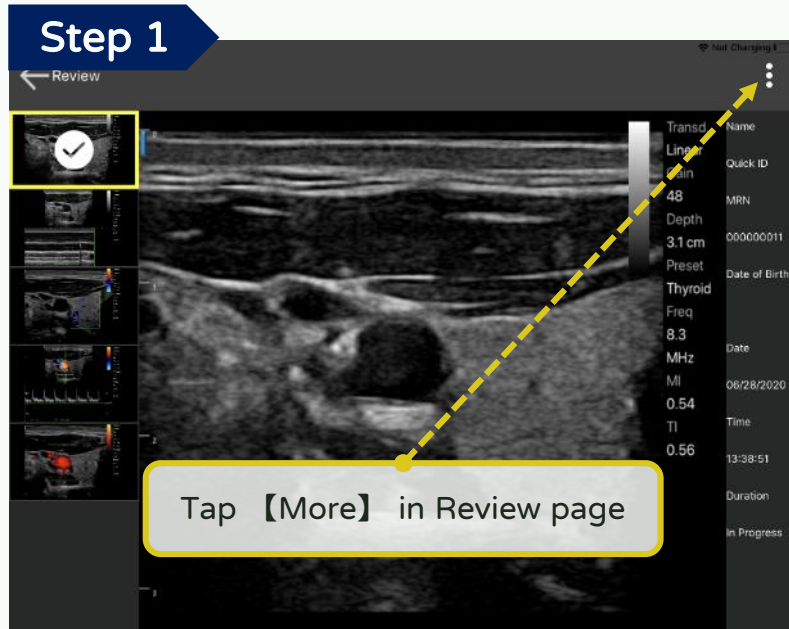
Select DICOM format and it will start to record it

**Step 4**

Tap **[Make Video]** button

# DICOM support - Upload DICOM file (1/2)

\*Optional function

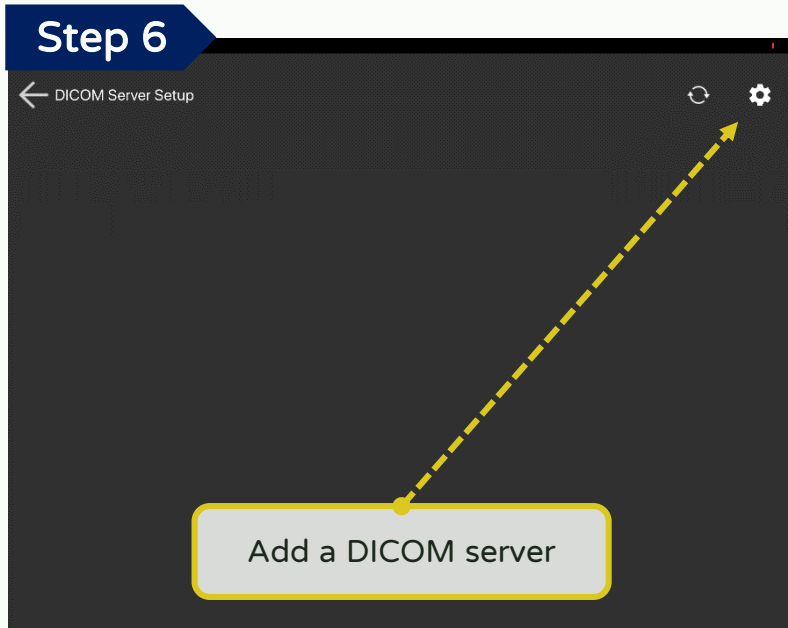


# DICOM support - Upload DICOM file (2/2)

\*Optional function



### Step 6

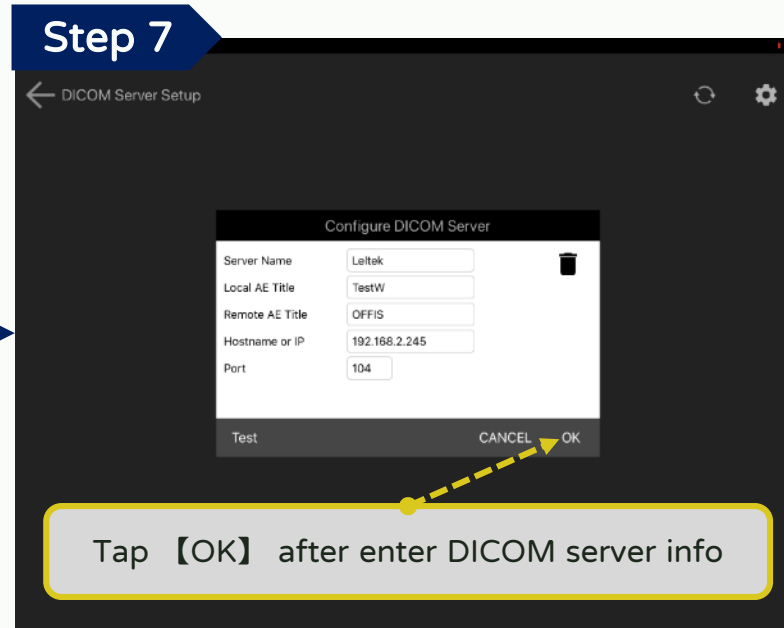


← DICOM Server Setup

Add a DICOM server

A dashed yellow arrow points from the text box to the gear icon in the top right corner of the screen.

### Step 7



← DICOM Server Setup

Configure DICOM Server

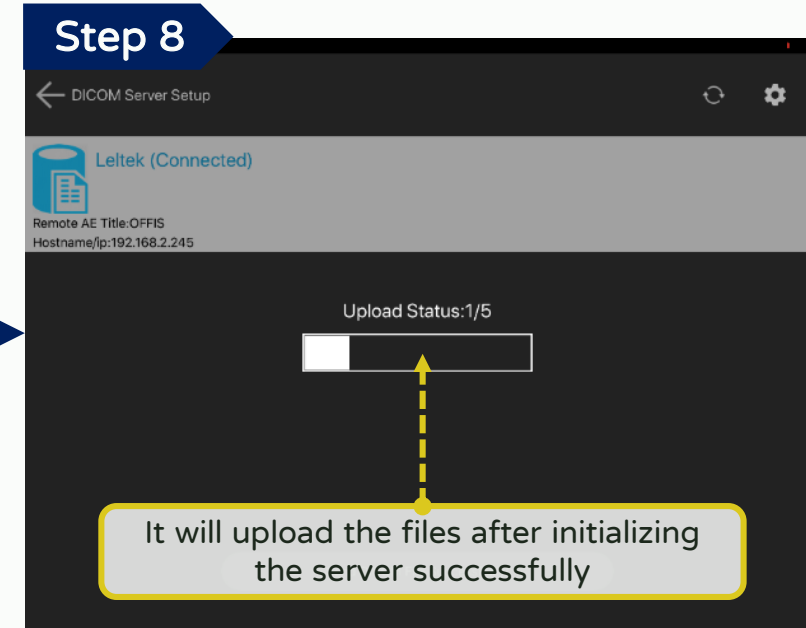
Server Name	Leitek
Local AE Title	TestW
Remote AE Title	OFFIS
Hostname or IP	192.168.2.245
Port	104

Test CANCEL OK

Tap **【OK】** after enter DICOM server info

A dashed yellow arrow points from the text box to the OK button in the dialog box.

### Step 8



← DICOM Server Setup

Leltek (Connected)

Remote AE Title:OFFIS  
Hostname/ip:192.168.2.245

Upload Status:1/5

It will upload the files after initializing the server successfully

A dashed yellow arrow points from the text box to the progress bar.

### Step 9



← DICOM Server Setup

Leltek (Not Connected)

Remote AE Title:OFFIS  
Hostname/ip:192.168.2.245

Upload DICOM files successfully

Send DICOM file Completed !!

A dashed yellow arrow points from the text box to the completion message at the bottom of the screen.