

Smart TruMan Trauma Adult User Manual



Smart TruMan Trauma Adult is a durable, anatomically accurate trauma simulator designed for realistic emergency procedure training with integrated SmartResus technology.

It supports key interventions such as chest tube insertion, CPR, needle decompression, and cricothyroidotomy, providing lifelike anatomical landmarks and tissue response for effective hands-on learning.

SmartResus integration delivers real-time CPR feedback, performance monitoring, and data recording, essential for ATLS training.

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Product Specifications

Product Name: Smart TruMan Trauma Adult

Product Code: TTAP001

Product Weight: 17.5kg

Full shipment weight: 27.5kg

Full shipment dimensions: 110.5(L) x 46.5(W) x 52.5(H) cm

Package Contents

The package contains:

- x1 Smart TruMan Trauma Adult model (TTAP001)
- x1 USB C connection cable
- x1 Smart TruMan Trauma Adult carrier case
- x1 100ml TruCorp lubrication (TL001)
- x1 Wrap Around Neck Skin (RSN2005)
- x5 Larynx Insert (NLX050) 1 attached, 4 extra
- x1 set of Torso Inserts – Chest Drain (CDNCN2)

Recommended Equipment Sizes

The recommended equipment sizes to be used with the Smart TruMan Trauma Adult are as follows:

- Size 6.0-7.0mm ID for nasal intubation
- Size 7.0-8mm ID for oral intubation
- Size 3-5 for LMA laryngeal masks
- Similar respective sizes for other supraglottic devices
- Size 6 Anaesthetic face mask
- 14-gauge needle decompression needle, minimum 2-inch (5cm) length
- 32 Fr chest tube

List of Procedures Facilitated by Smart TruMan Trauma Adult

- Oral (endotracheal) intubation
- Nasopharyngeal intubation
- Fibre optic and video laryngoscopy
- Direct laryngoscopy with ET intubation
- Supraglottic airway device use (including LMAs)
- Combi tube insertion
- Nasogastric tube insertion and care
- Bag-valve-mask ventilation (BVM)
- Single-lung isolation techniques
- Front-of-neck airway (FONA) – needle and surgical cricothyroidotomy
- Percutaneous tracheostomy
- Tracheostomy and tracheotomy care
- Chest tube insertion in the 4th/5th/6th intercostal space (surgical incision, blunt dissection, pleural perforation, finger sweep)
- Needle decompression of pneumothorax (2nd and 5th intercostal spaces)
- Pelvic binding
- Identification of stomach distension during ventilation

SmartResus App Features

- Cardiopulmonary resuscitation (CPR) with real-time feedback
- ECG rhythm recognition and monitoring
- Defibrillation training (manual and AED)
- Ultrasound interpretation (lung, pericardial effusion, tamponade, abdominal fluid, cardiac standstill, etc.)
- Chest X-ray interpretation (pneumothorax, haemothorax, aortic dissection, cardiomegaly)
- Patient Sounds

Initial Set-up Information

- Gently remove the model from the carrier case
- Ensure the body is lying flat in the supine position
- The head can be placed in a neutral or sniffing position by rotating the head, if required for direct laryngoscopy
- Check the volume of air in the tongue is sufficient, it can be inflated or deflated by a syringe to adjust the difficulty during intubation if desired
- Spray generous amounts of lubrication provided with the model (TL001) on the airway and equipment prior to use

Replacing Consumables

When changing Consumables please use the instructions below:

Replacing the Larynx Insert

To replace the larynx insert you must first check the head is in the neutral position. Remove the neck skin and larynx insert. When inserting the new larynx please use the notches highlighted in the image below and that it is pushed downwards to secure the insert in place.



Replacing the Chest Drain Inserts

To replace the chest drain inserts, gently pull back the chest skin from around the insert and lift it away from the rib structure.

The chest drain inserts are labelled L for left and R for Right, corresponding to each side of the torso.



To replace the insert, align the chest drain insert with the corresponding opening on the manikin's chest skin, and press the connectors on the underside of the insert into the cavities in the manikin's visible rib cage. A small amount of lubrication may be applied to assist with sliding it into place.



Replacing Parts

When replacing parts please use the instructions below:

Replacing the Chest Skin

Detach the existing chest skin by releasing the velcro fastenings at the back of the manikin and peel the skin away from the torso.



Align the skin with the legs of the manikin and pulling towards the torso avoiding twisting or bunching.



Guide the skin so that each silicone rib marker is seated into the corresponding intercostal space starting from the bottom working your way up one by one.

Align the tongue bulb, switches and the USB portal with the corresponding openings on the chest skin.

Fasten the Velcro on the rear panel, applying firm, even pressure along the seam to secure the skin in place.



Replacing the Head

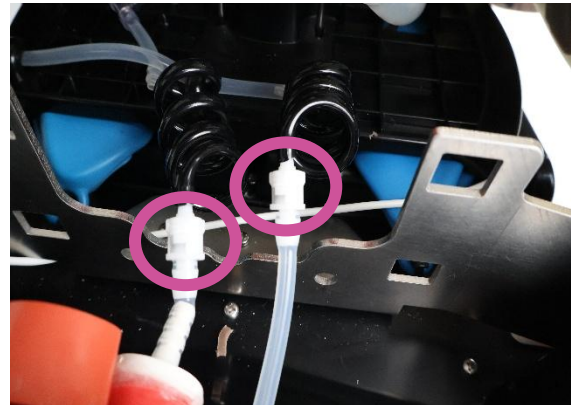
Removing the Head:

Release the velcro fastenings on the back of the chest skin to give better access to the head/neck area.

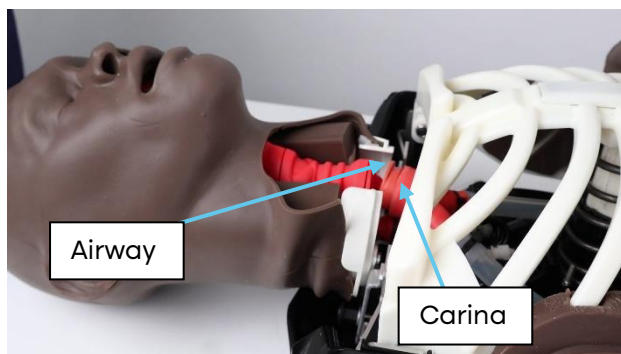
You should now be able to see the black spring plungers on the metal head bracket, pull both plungers outwards at the same time then push down and outward to fully release it from the metal bracket on the torso.



Locate the black coiled tubing connecting the head to the torso, there should be two. Simply twist the connector anticlockwise to release.



Grip the connection point of the airway and the carina and gently pull to detach.



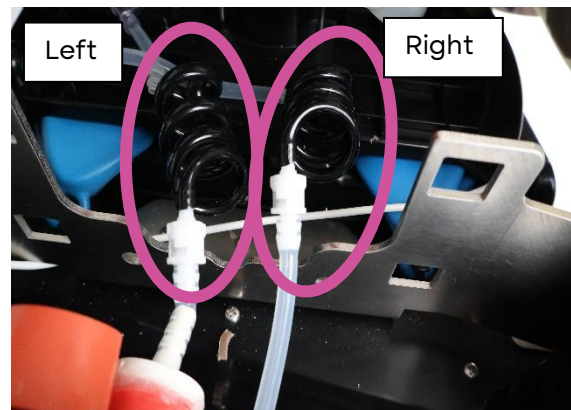
Reattaching the Head:

Align the head with the torso and locate the coiled tubing on the inside of the torso.

Gently pull coiled tubing out of torso and twist to connect it to the head using the guide below:

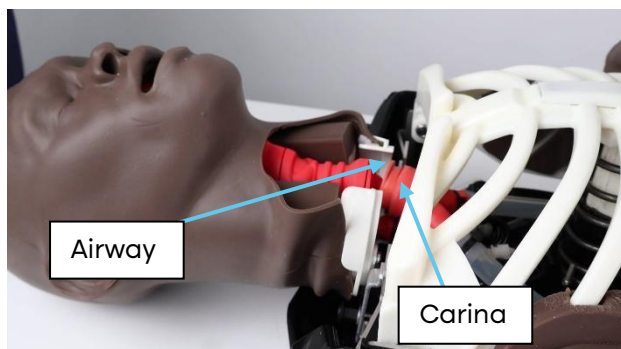
- Oesophagus connects to the left coiled tubing
- Tongue connects to the right coiled tubing

The metal bracket on the head has 4 tabs on each corner which align to holes on the torso bracket, as shown in the below image:



Once they are through the holes, push the head up and you should hear an audible click, which is the sound of the spring plungers locking the head into place.

When the head is connected to the torso, you can push the airway and carina connectors together to ensure a tight seal on the airway. Reposition the chest skin ensuring the velcro has reattached.



Initial App Setup

On removing the Smart TruMan Trauma Adult unit from the packaging, place on a flat, level surface. Plug in the supplied USB-C cable. Press the silver ON/OFF button located on the torso's left shoulder to turn on the Smart Airway unit.

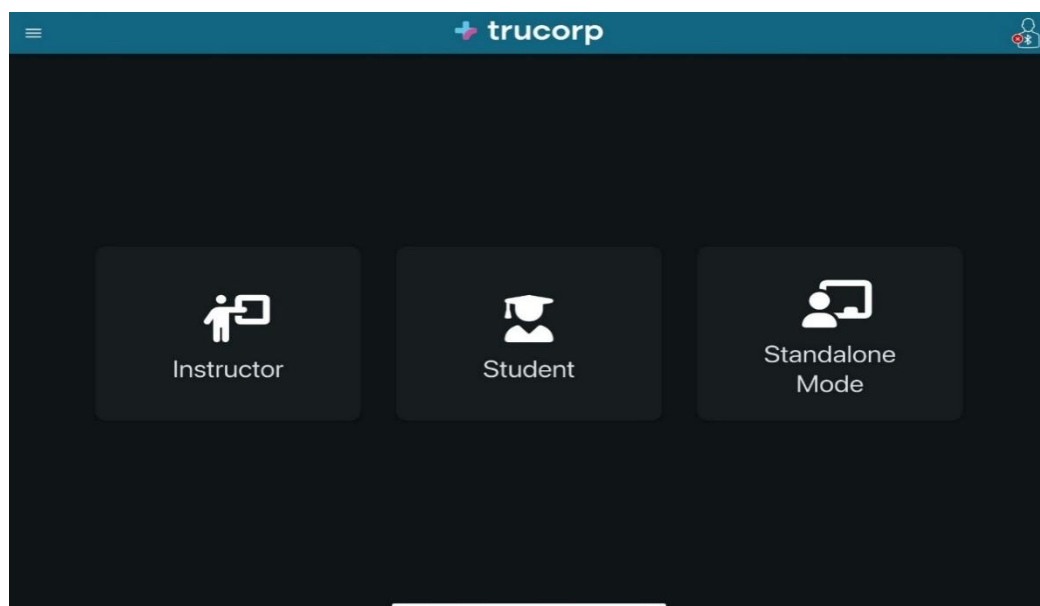
Note: The ON/OFF switch has 2 states:

1. Flashing LED- in pairing mode.
2. Static LED- the device has paired with a manikin.

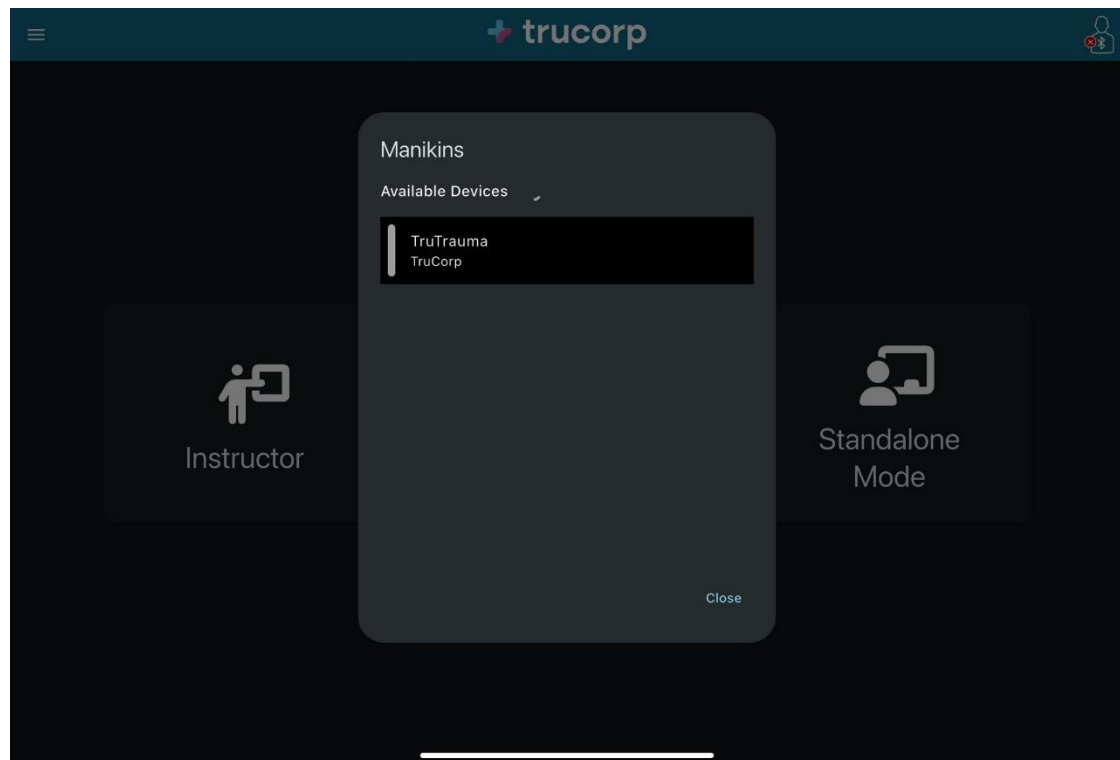
Getting Started with the SmartResus App

The SmartResus app is available to download from both the App and Google Play stores.

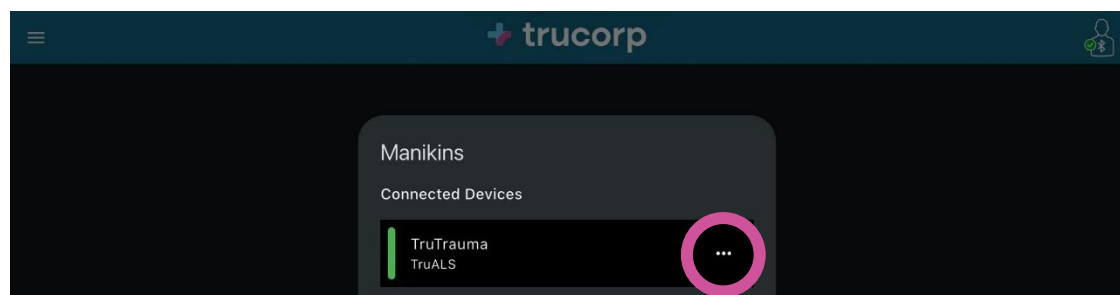
On opening, you will be brought to the home screen:



To connect to a manikin, press the connection icon on the top right. This will open the connection dialogue. Select from the list of available devices.



The manikin can be renamed by pressing the menu icon when connected and then pressing rename.



The Smart TruMan Trauma Adult supports three primary modes of operation within the SmartResus app:

1. **Instructor Mode**

In this mode, the instructor can set up and control training scenarios, managing the monitor display and sending information to connected students — such as simulated patient sounds. The instructor can also monitor real-time CPR feedback, including metrics on compression depth, rate, hand position, and recoil.

2. **Student Mode**

Students can connect to a session created by the instructor and view a replicated patient monitor displaying real-time vital signs. CPR feedback is

shown live, covering depth, rate, hand position, and recoil to support skill development.

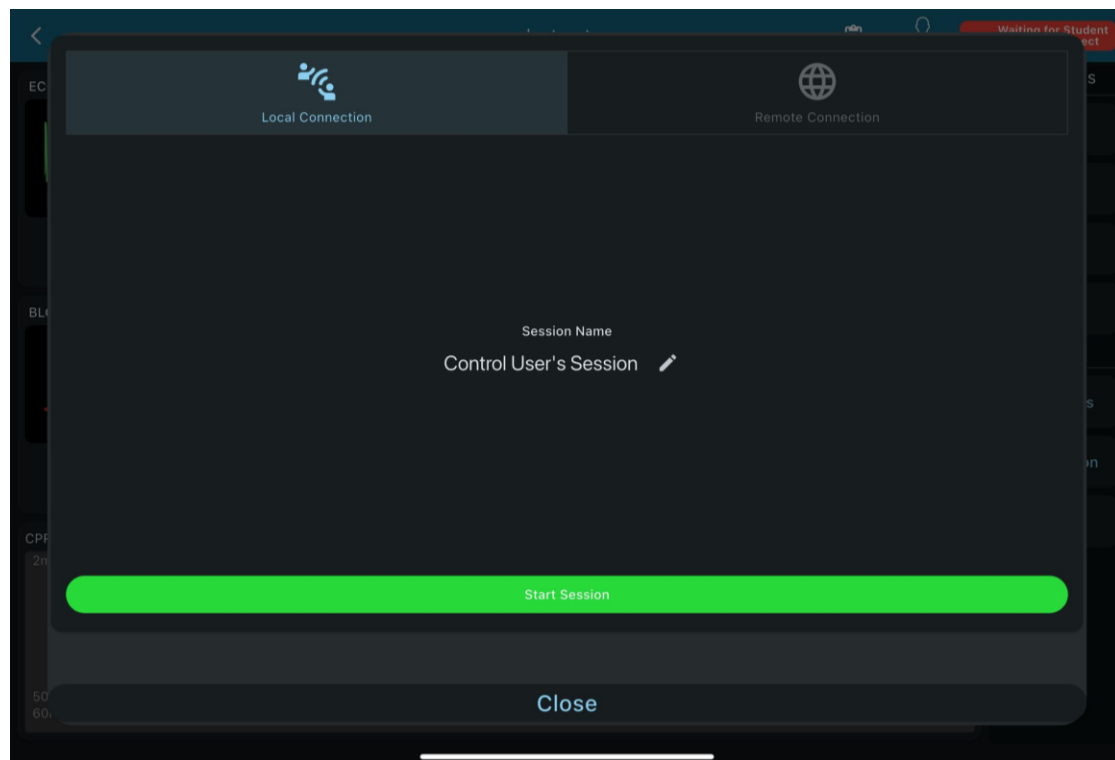
3. **Standalone Mode**

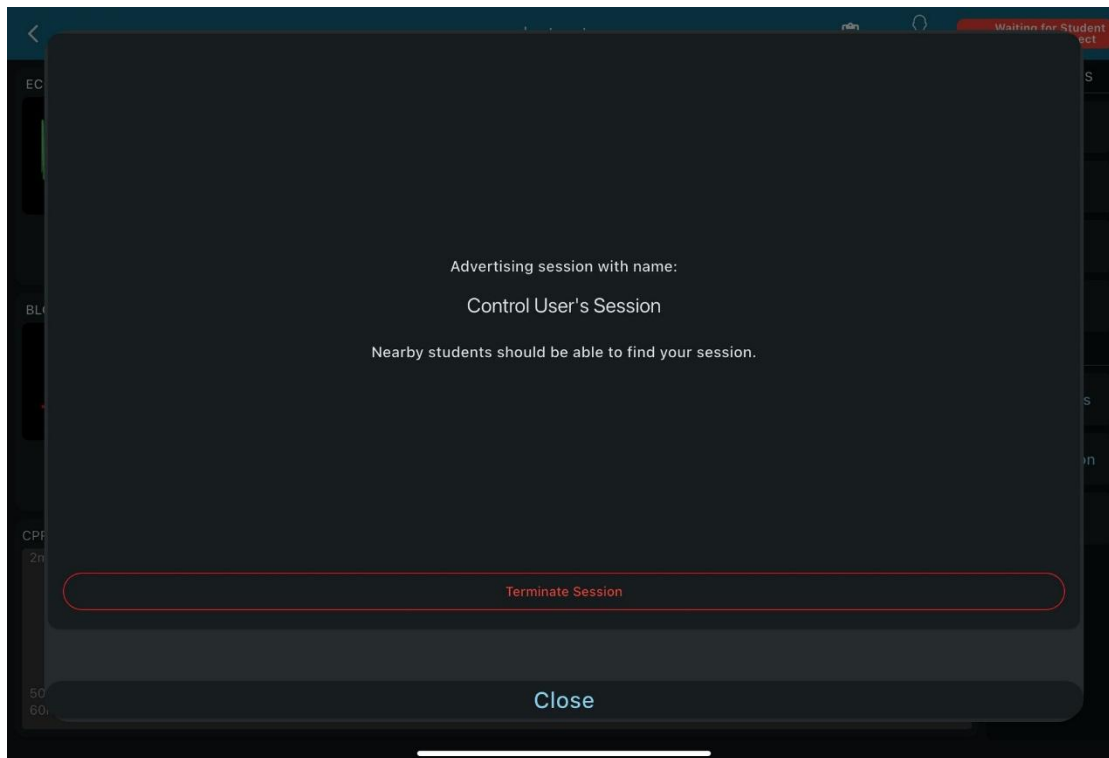
This mode enables a single user to access both Instructor and Student views simultaneously on the same tablet. It allows for the creation and control of training scenarios, while also displaying the simulated patient monitor — ideal for individual practice or setup in non-instructor-led sessions.

Instructor Mode - SmartResus App

To create a practise session as an instructor, open Instructor Mode and select the red bar located at the top right of the screen, displaying the text "Waiting for student to join Auto Session".

From there a session can be created with a custom name, either through a local or remote connection.

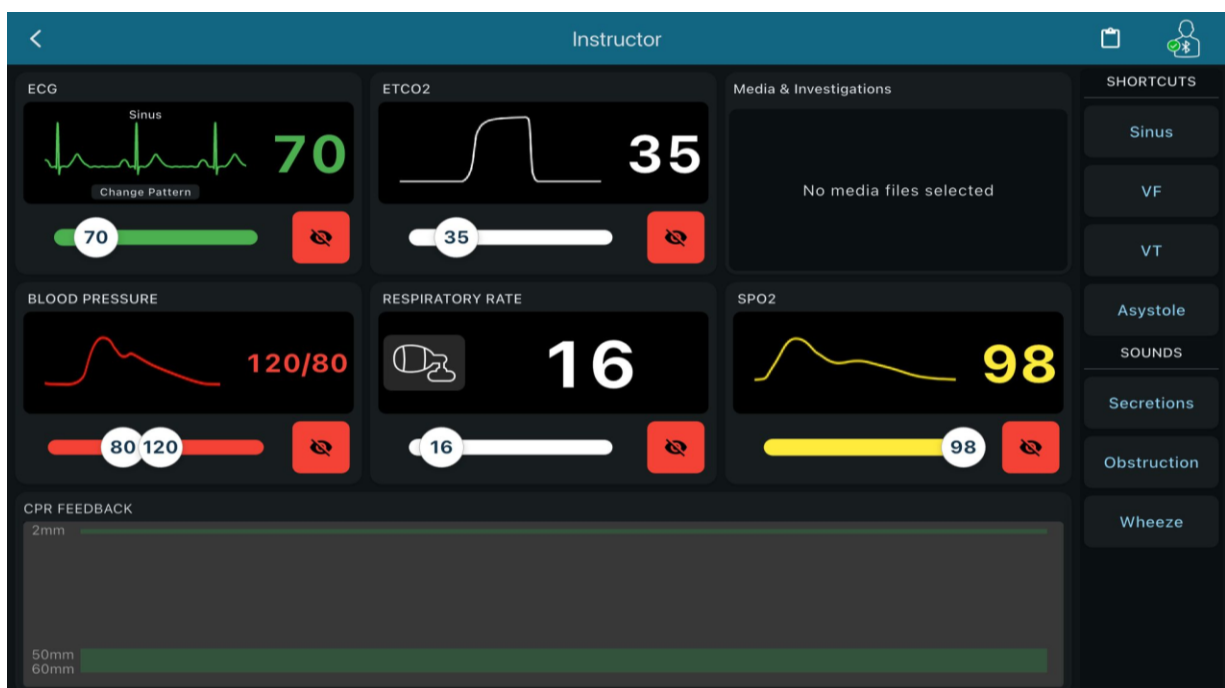




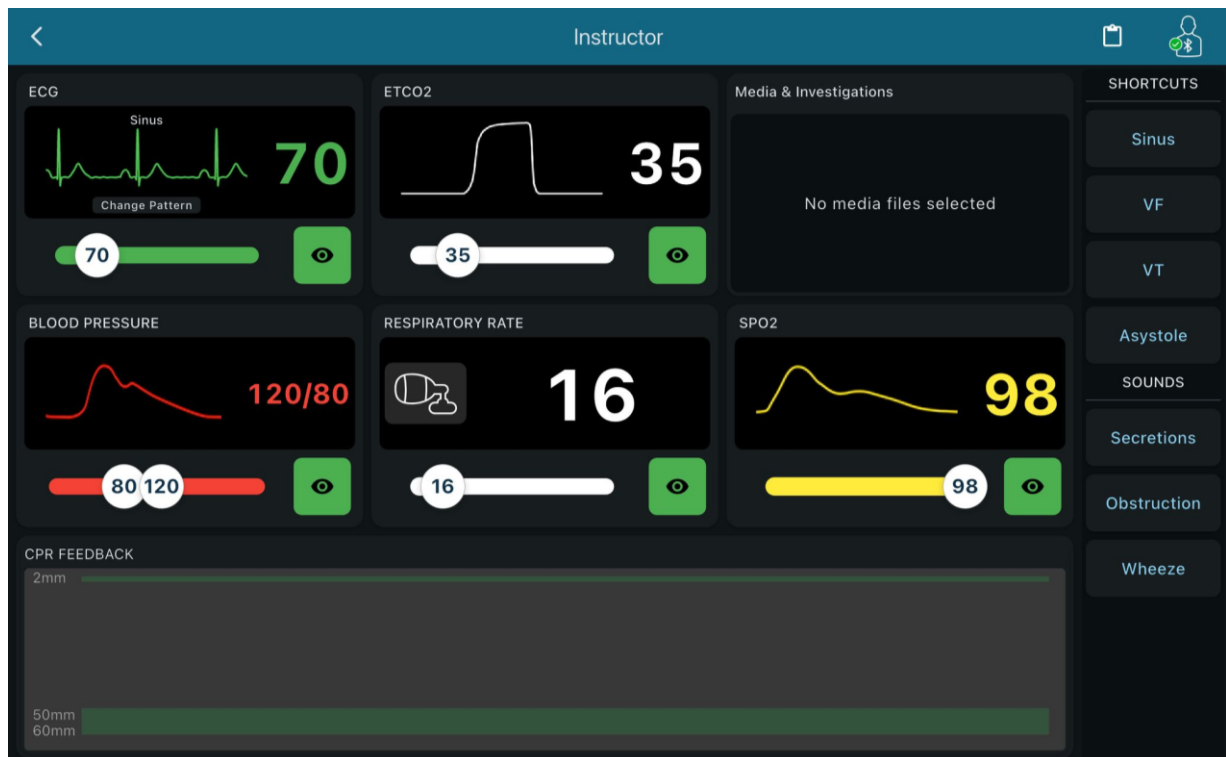
Students using the app on the Student Mode will be able to auto join this session, linking the devices and allowing the instructor to have full control of the information displayed on the student's screen.

Instructor Mode Controls

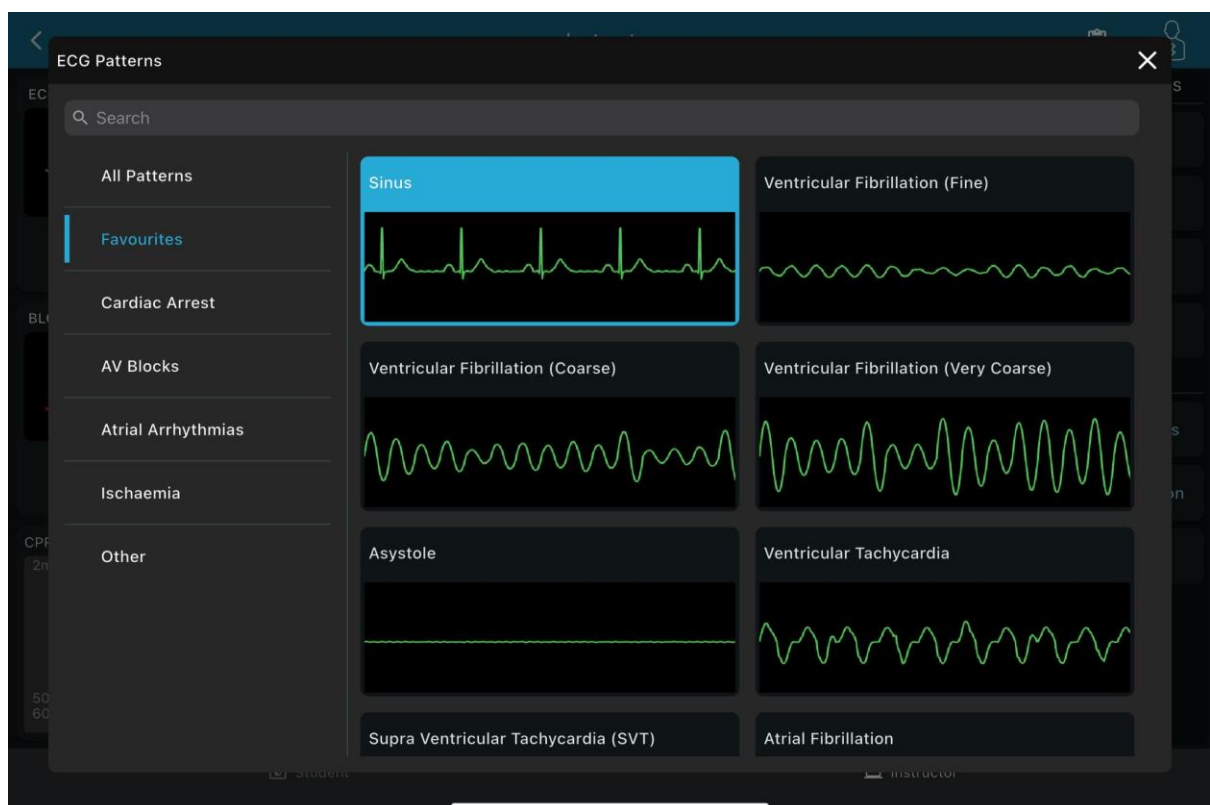
When in instructor mode, the user has access to customisable controls for the ECG, ETCO2, blood pressure, respiratory rate, and SPO2 vitals which will be displayed on the student's screen, along with sliders so the information can be tailored to the training scenario in real-time.



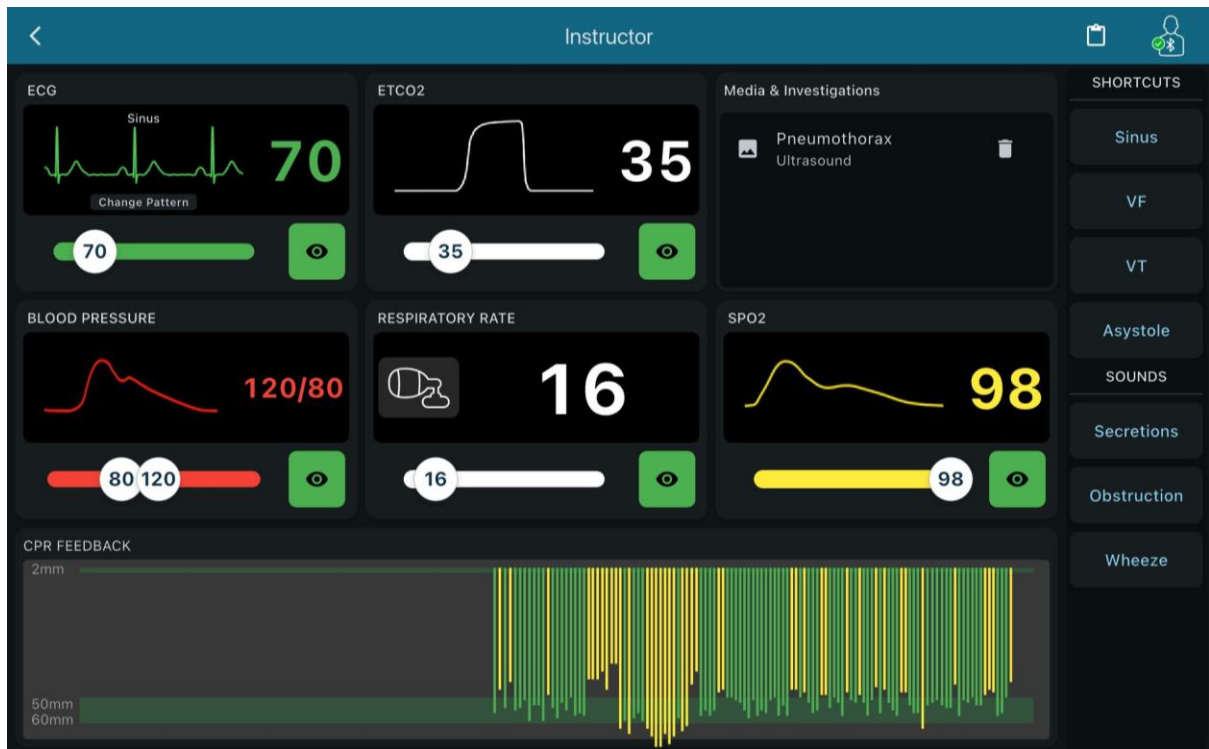
All vitals can be turned on and off by toggling the eye icon box beside each of the customisable sliders.



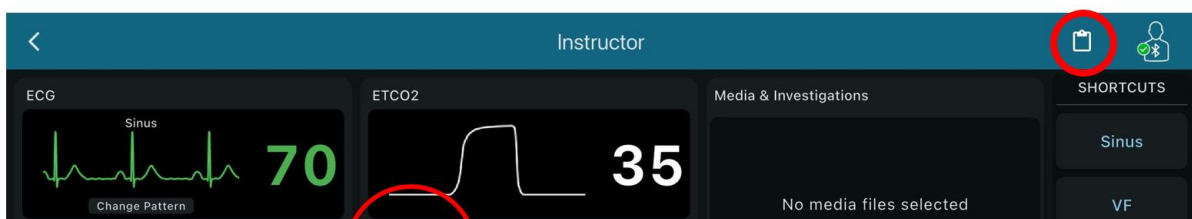
By pressing the ECG rhythm displayed, the user can access a range of ECG patterns which can be activated to add complications to the training scenario for the user.



Detailed CPR feedback coming from the user performing chest compressions on the connected manikin will show in real time on the instructor screen, showing detailed performance analysis of CPR quality.

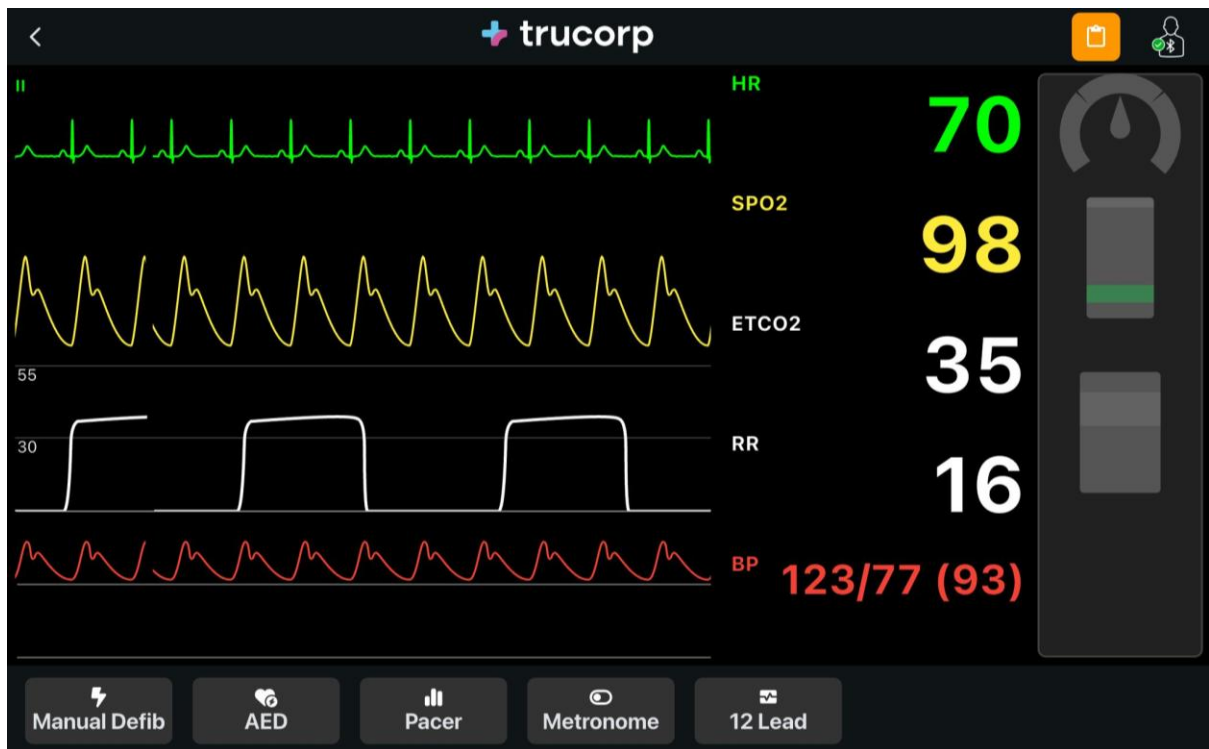


By selecting the report icon located on the top right corner of the instructor screen, the user can access the media and investigations screen, allowing the user to send CT, ultrasound and Xray results to the student screen for them to analyse.

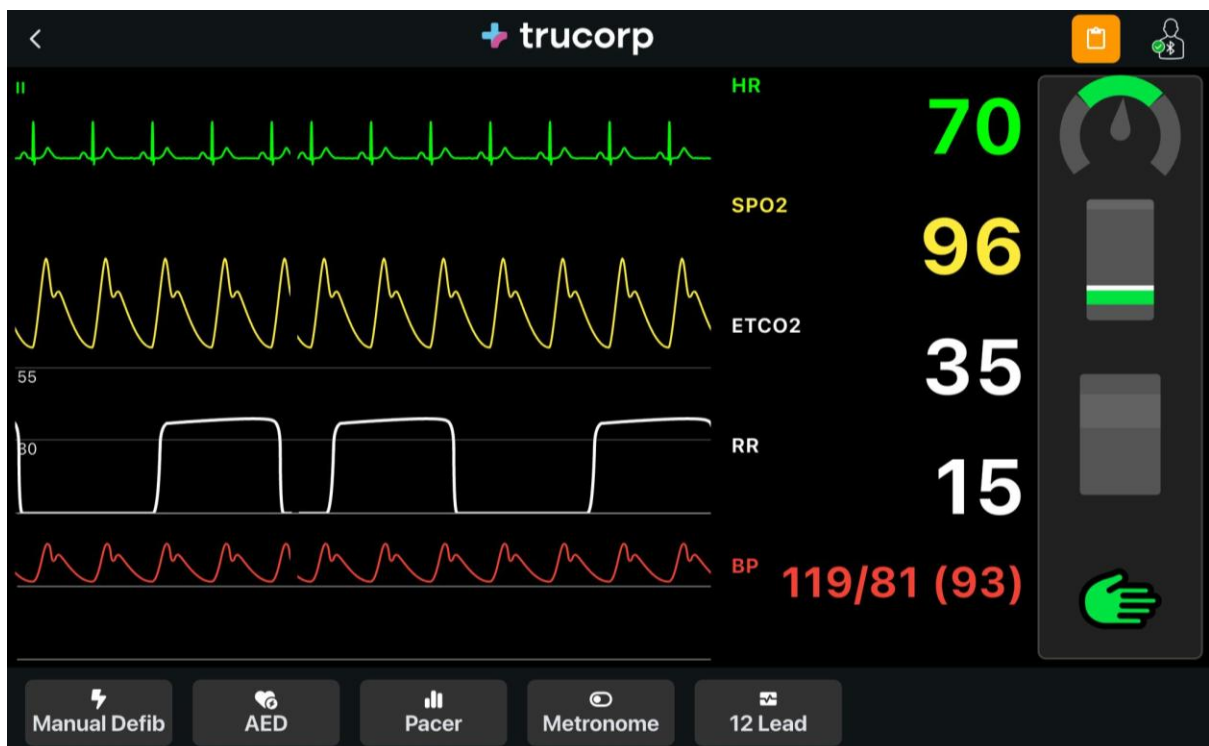


Student Mode Controls

When in Student mode and connected to the session, the student will see the monitor screen with the vitals selected by the instructor shown in real-time.

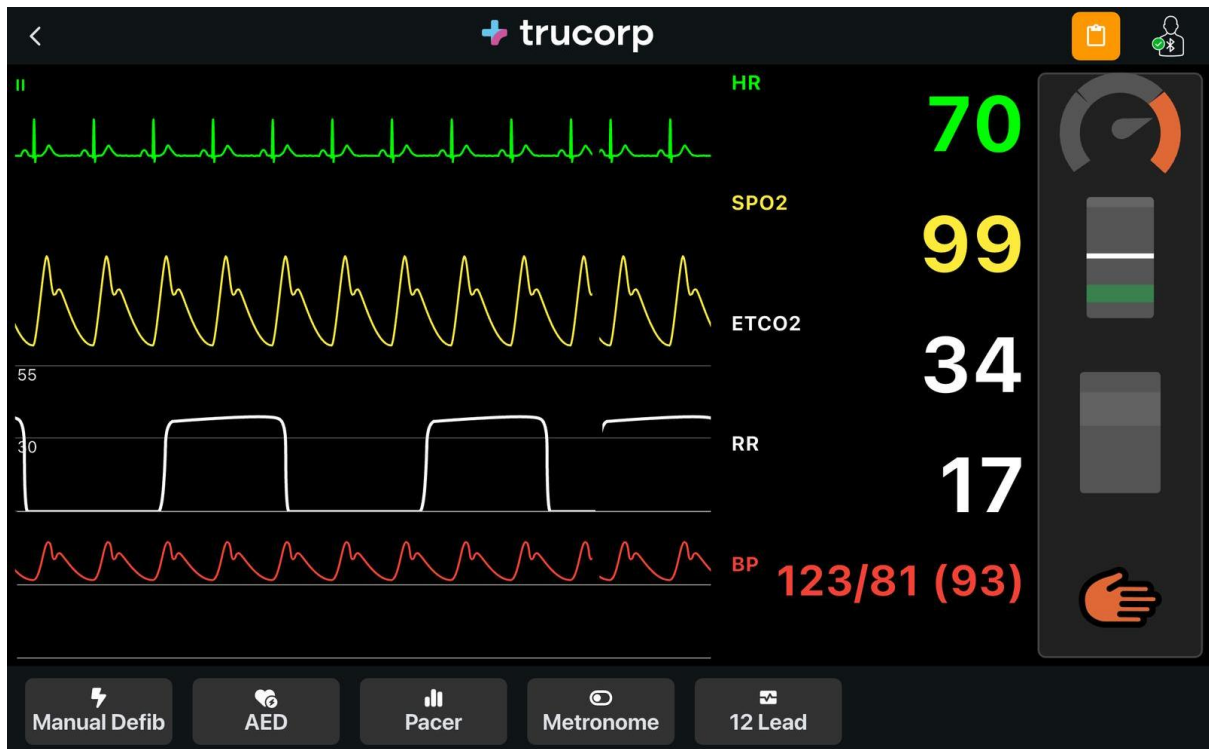


When the student performs chest compressions on the manikin, icons on the right side of the screen display compression depth, rate, and hand position. Green highlights within the icons indicate optimal CPR performance in each category.

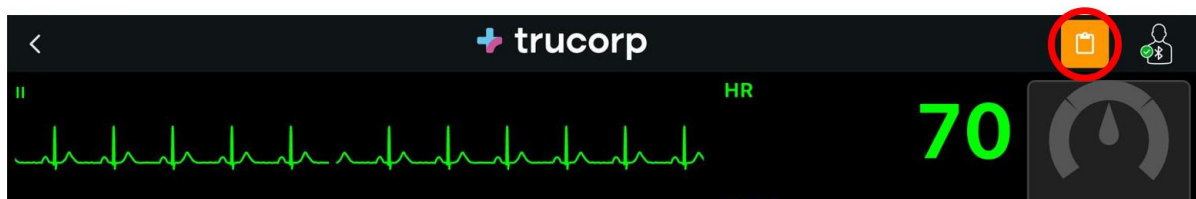


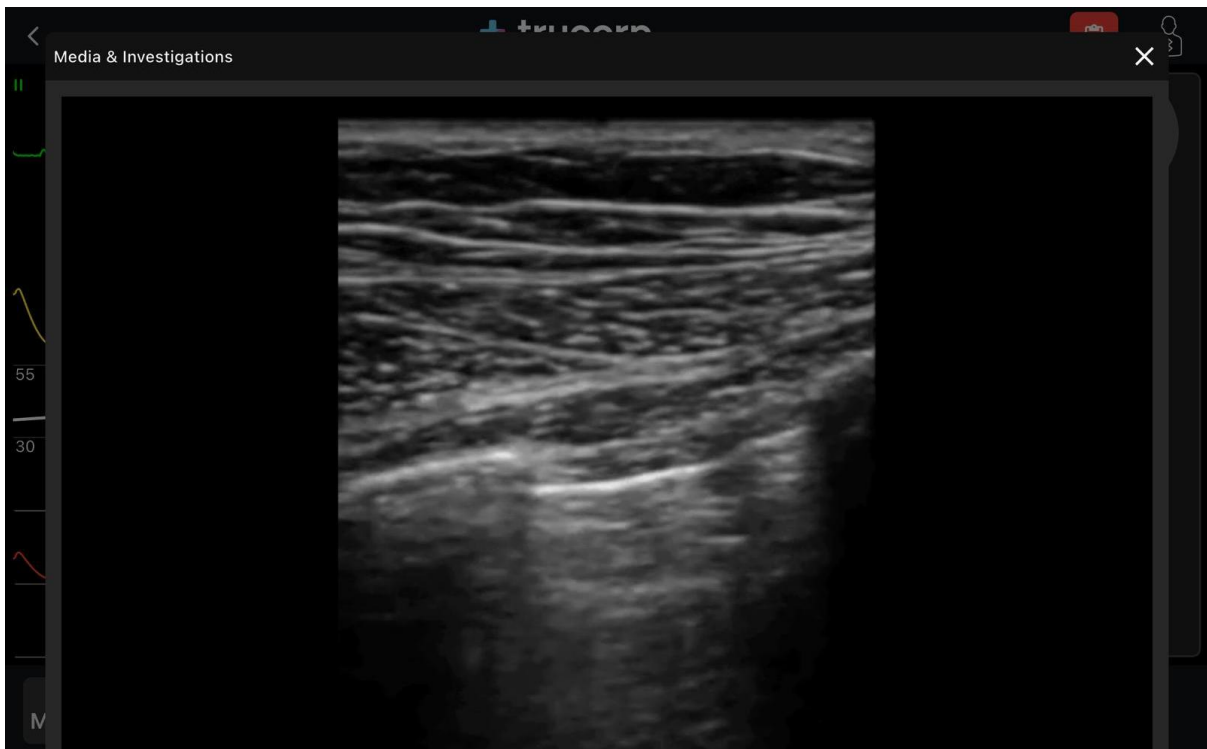
If chest compressions are performed incorrectly, the icons will change to a red display highlighting incorrect technique.

Throughout performing CPR, a voice guide will also advise on whether the user need to adjust their compressional rate, or depth.

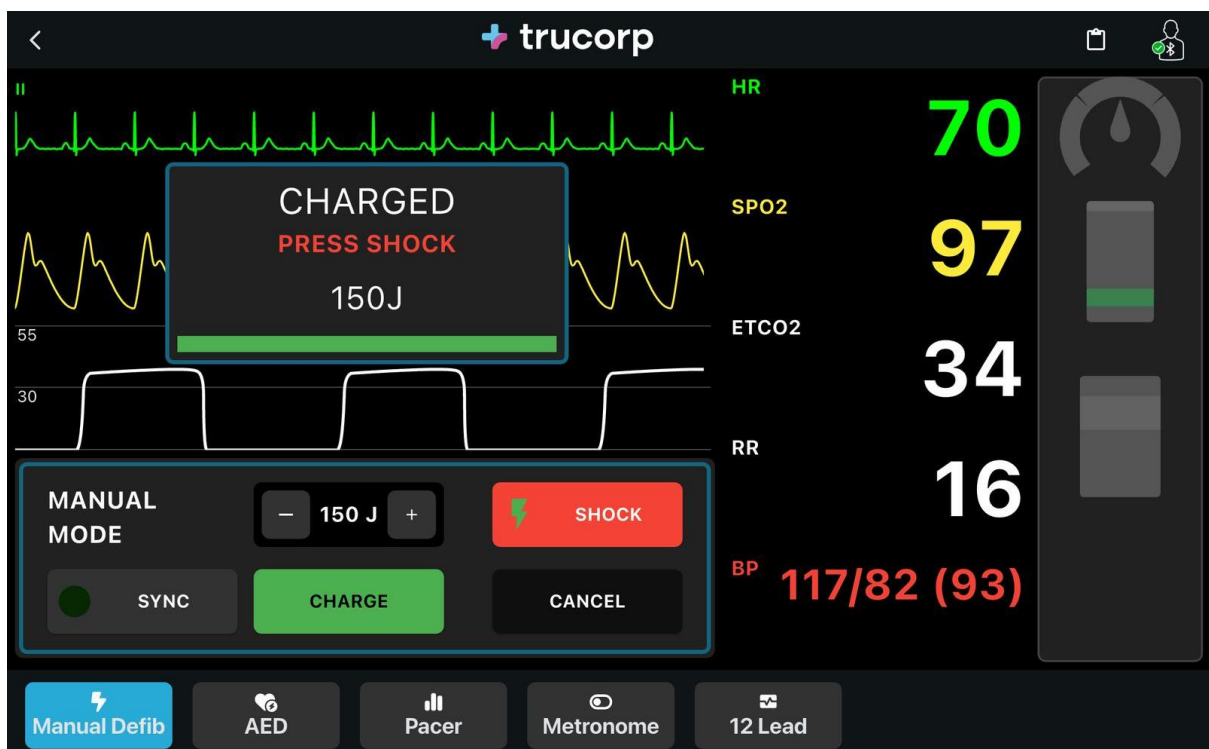


When the reports icon located at the top right of the screen is highlighted in orange, it means that an investigation has been made available by the instructor for the student to review.



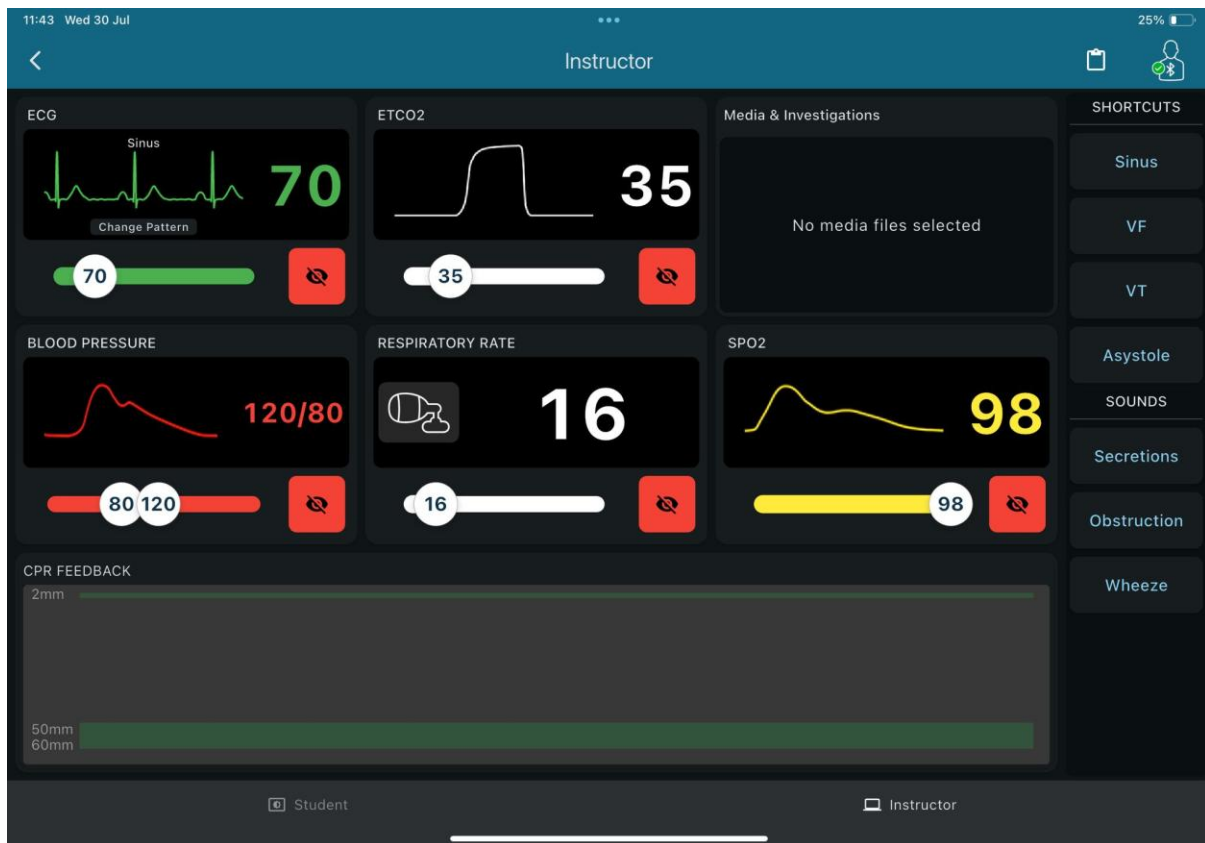


Simulated manual defibrillators, AEDs, pacers, metronomes, and 12-lead ECGs are accessible to the student along the bottom of the screen. These tools allow users to practice critical interventions in real time. When a simulated shock is delivered to a shockable rhythm, the ECG display will automatically update to reflect a return to sinus rhythm, providing realistic, scenario-based feedback.



Standalone Mode Controls

When in Standalone Mode, the user can access both the student and instructor screens at the same time by toggling the tabs at the bottom of the screen.



This allows the training to be completed through one device, as no session would need to be created, and any inputs selected on the instructor tab will be immediately implemented on the student tab.

Troubleshooting and FAQs

- Issues with connectivity/timeout?
 - Close the app, turn off the manikin and reconnect.
- Uneven chest rise during BVM/ correct intubation?
 - Give 3-5 excessive breaths to free the chest mechanics.
- Problems powering on the unit?
 - Ensure the USB-C power cable is plugged into the recommended adaptor.
- Issues with the SmartResus app?
 - Ensure you have downloaded the latest release from the App Store or Google Play store
- Issues with a specific feature?
 - Contact Trucorp to discuss.
- Optimal Chest Compression
 - The spring rate is based on 45kg of force for 50mm for travel as per the average male.

Care and Maintenance

The model should be treated with care, as though it is a real-life clinical environment. When the product is not in use, please store in the black carrier case provided.

Store in clean, dry conditions away from heat and direct sunlight; avoid contact with metals, solvents, oils or greases and strong detergents.

Alcohol wipes (minimum 75%) may be used on the airway in accordance with the manufacturer's instructions.

Electronics:

Electrical Safety

Power Supply: The product operates at 5V DC and is powered via a USB-C to USB-A cable (supplied) connected to a suitable USB-A power source. We recommend using a 5V, 2.1A (10.5W) USB power adapter that complies with relevant safety and compatibility standards. Use of a power supply above these ratings may cause malfunction, damage, or void the warranty. Please ensure the cable used is no longer than 3 metres. Note: A USB power adapter is not supplied with the product. It is the user's responsibility to select an appropriate power source. 25

Disconnect When Not in Use: If you do not plan to use the product for an extended period, unplug it from the power source.

Avoid Overloading: Do not connect the product to a power source that is already overloaded with other devices.

Operating Environment

Temperature: Operate the product in a well-ventilated area. Avoid placing it in direct sunlight or near heat sources as excessive heat can damage the internal components. The electronics subsystem within the product supports an operating temperature range of -40°C to 85°C.

Humidity: Keep the product in a dry environment. High humidity can lead to condensation, which may cause electrical shorts or other malfunctions.

Dust: Keep the product away from dusty areas. Dust accumulation can affect the performance and cooling of the product.

Software Updates:

App Updates: Ensure that the Smart Airway app is up to date. Check the App Store/Play Store for updates.

Internal Access:

No User Accessible Components: This product is designed without any user-accessible components inside. Please do not attempt to open the casing or access the internal parts.

Warranty

TruCorp warrants this product to be free from defects in materials and workmanship, ensuring satisfactory performance for a period of one year from the date of delivery. This warranty provides customers with maximum coverage for each unit.

If a product malfunctions and is confirmed to be defective under warranty, TruCorp will repair or replace it at no cost. However, the warranty is void if the unit shows signs of tampering, excessive heat exposure, damage from sharp instruments, improper use, or any conditions beyond TruCorp's control. Consumable items such as wrap-around neck skins and larynx inserts are not covered under warranty and will not be replaced. Damage resulting from misuse is not covered and may incur additional charges.

For full terms and conditions, visit: [TruCorp Warranty Policy](#)

Please direct all warranty and repair inquiries to:



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