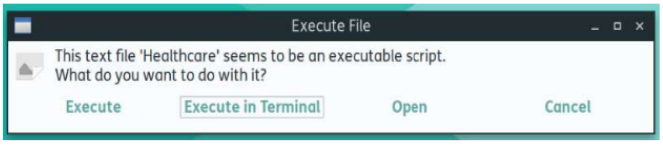
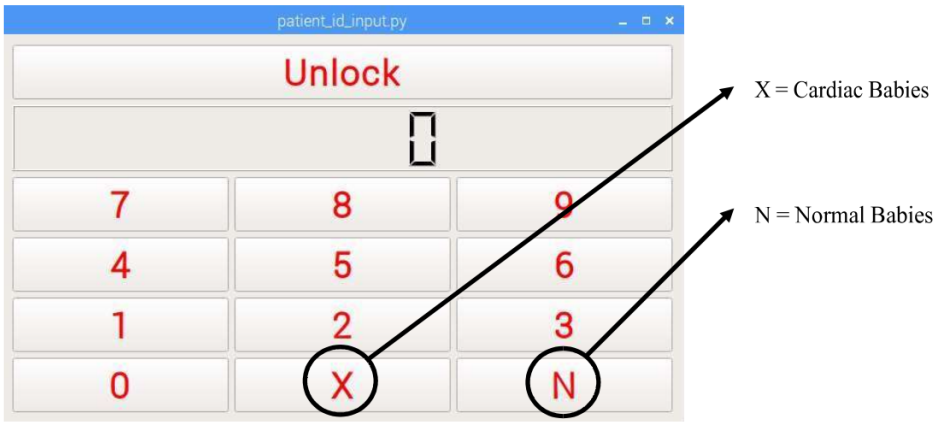
CCHD 2022 MANUAL OF OPERATIONS

By Yiqing Xiao, Zhixing Liu

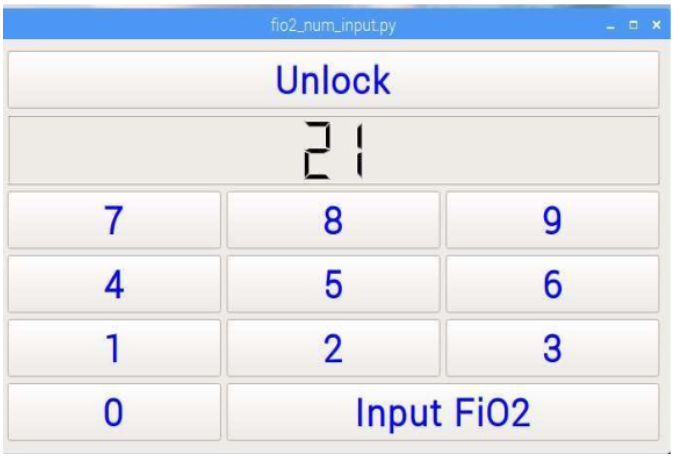
1. Double click the Healthcare file on the top left of the screen, then on the pop-up window click "Execute" or "Execute in terminal". A new window should pop up for the Patient ID (shown in step 2)



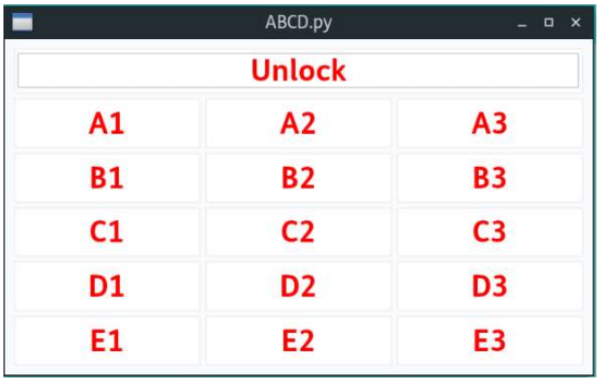
2. Press "Unlock" and enter the patient ID number (use the mouse, not the keyboard). In case you enter the wrong ID number, do not enter "X" or "N". Enter 0's until the number resets to 0. If the baby is healthy add an "N" at the end of the ID number. If the baby is a cardiac baby, add an "X" at the end of the ID Number.



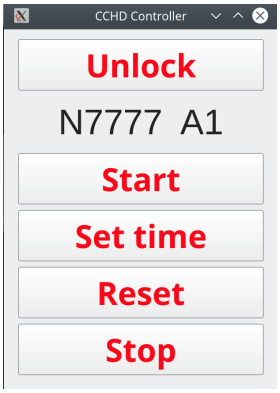
3. Now, you will be prompted to enter the FiO2. Press "Unlock" and Enter the FiO2 value. If the FiO2 value is 21, nothing needs to be entered. Now press "Input FiO2" (use the mouse not the keyboard).



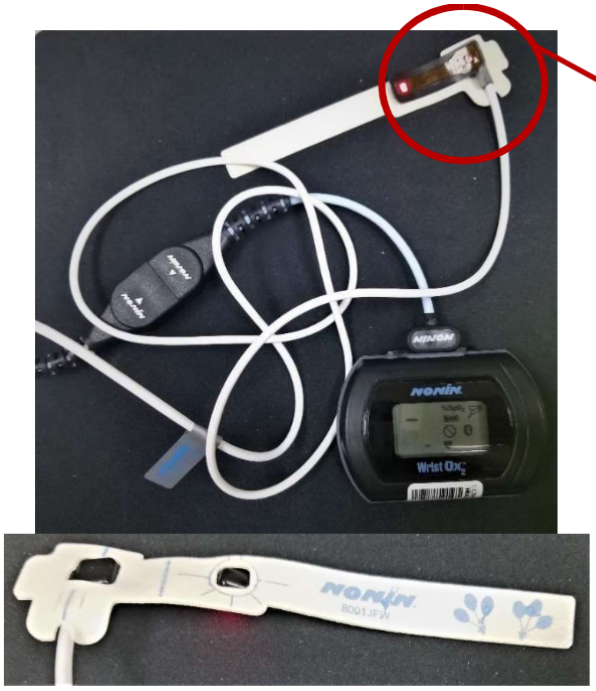
4. Next, press unlock and enter the take label. The alphanumeric value will be assigned as X# where X = A for 0-24 hrs, B for 24-48 hrs, and C for > 48 hrs. and # = 1 for take 1, 2 for take 2 etc. for that given day.



5. You will now see a screen as shown below. Do not press unlock yet. Before continuing, we will set-up the Nonins for data collection.



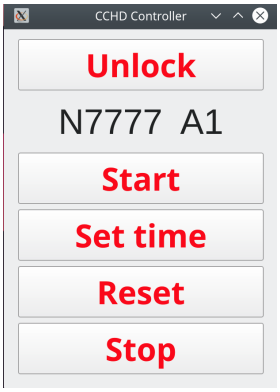
6. Attach a sticker to the Nonin sensor and connect the sensor cord to the parent Nonin device. Your set up should look like this.



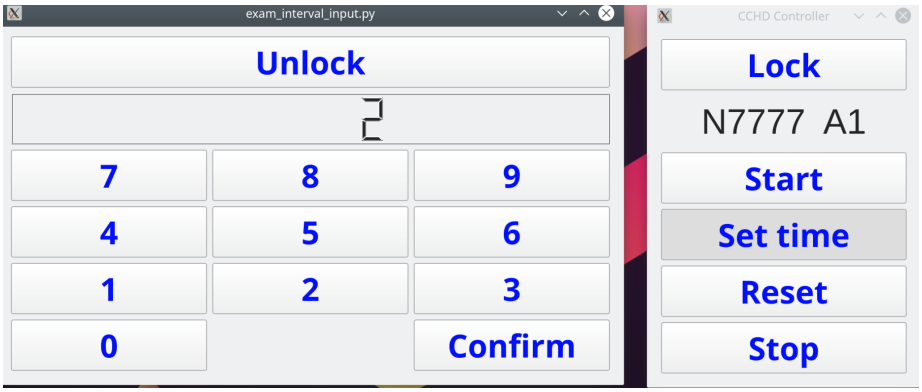
7. Repeat this setup for the second Nonin and turn both the Nonins on.

8. Wrap the Nonin sticker/sensor labeled “Right Hand” around the baby’s right palm and the Nonin sticker/sensor labeled “Foot” around the baby’s foot. If the baby has another pulse oximetry probe on the right hand or the foot needed for the study measurements, please remove those probes. If the sites as shown below aren’t options for placement, other options are fingers or right wrist (in place of the right hand) or toes (in place of the foot). Please be aware of placing the probes in locations that are unlikely to have compromised perfusion from other sources (ie something external to the baby or if the groin/leg were accessed for a central line or procedure). If these are concerns make notes on the data collection sheet.

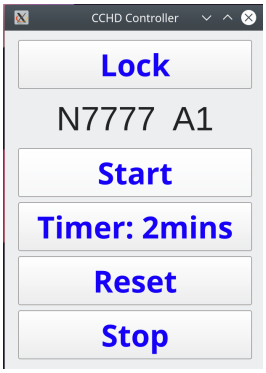
9. The CCHD controller has 4 main functions: “Start”, “Set time”, “Reset”, “Stop”. The “Start” bottom will start the examining; the “Set time” bottom can set the testing interval in minutes; the “Reset” will stop the testing and set the new taking label(ABCD); the “Stop” bottom will stop the current testing. The controller will also display the current case ID and the taking label once the proper information is set.



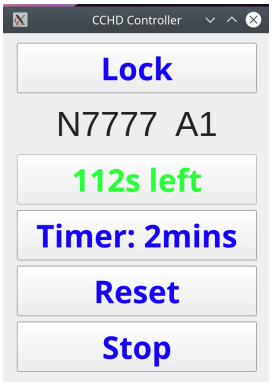
10. Unlock and click the “Set time” bottom to set the interval. Press “Unlock” and set the interval time in minutes. Then click “Confirm”, the set time window will close.



After the time is set, the time interval will display in the controller. You can change the interval when the test is not running by clicking “Timer: Xmins”.

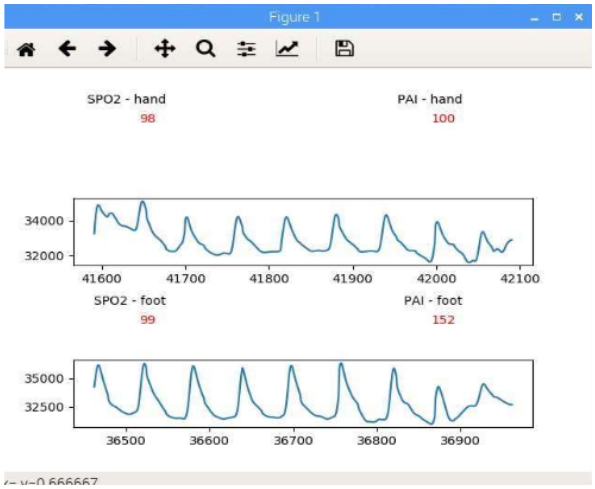


11. Now press “Start” on the controller window and wait for the graph to show up. The controller window will show the remaining time in seconds. You can reset or stop the running during the testing by clicking “Reset” or “Stop” bottom if the result is artifacts.

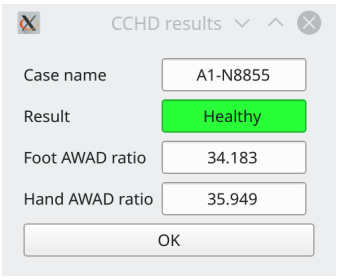


12. In the meantime, check to see if the Nonins begin to display this Bluetooth sign with moving transmission bars. (This may take about 5 seconds)

13. Once you see the transmission bars, the figure should pop up on the Pi-Top screen with a graph displaying waveforms from both Nonins like so.



14. After the timer timeout, the program should begin detecting the CCHD. After the detection is completed, a new result window will appear and show the CCHD result. You can click “OK” to close the window once the result is confirmed.



15. After the result window, you can decide to continue the testing by clicking “Continue”, reset and start the new ABCD tack by clicking “Reset”, or stop testing by clicking the “Stop” and close the program.