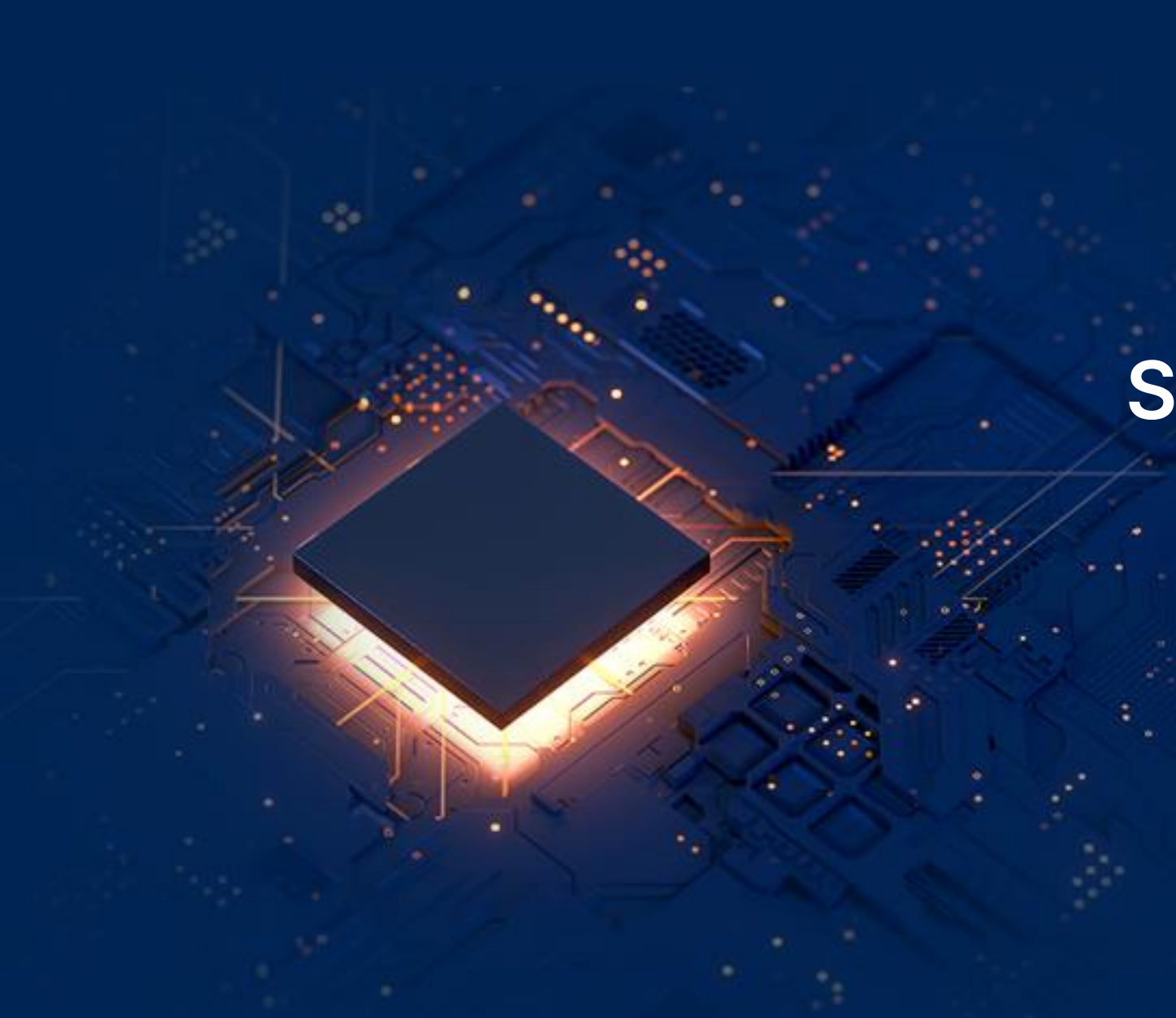
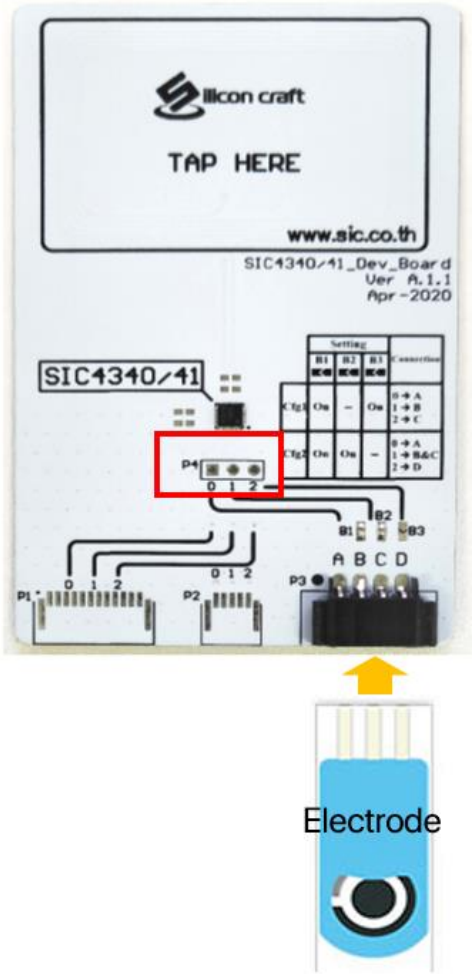


Getting Start with SIC4341 Flexsense Development Kit

Dec 2022

Prepare SIC4341 Flexsense Board

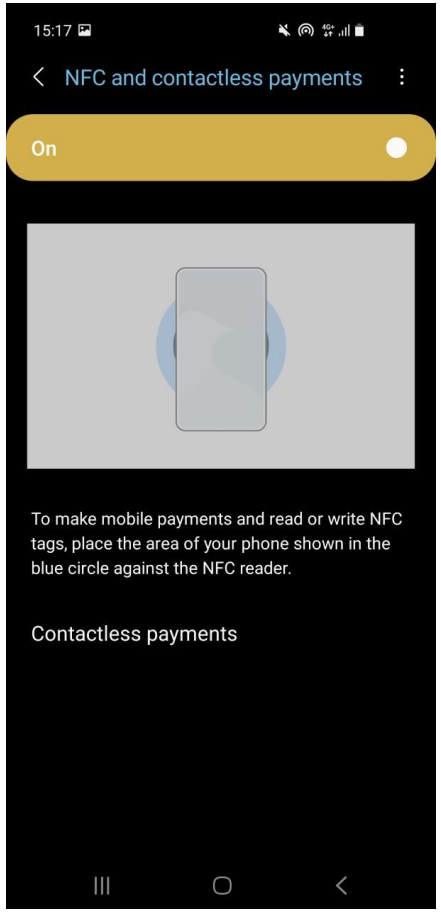


For Flexsense board, electrode pin position can be configured in mobile application

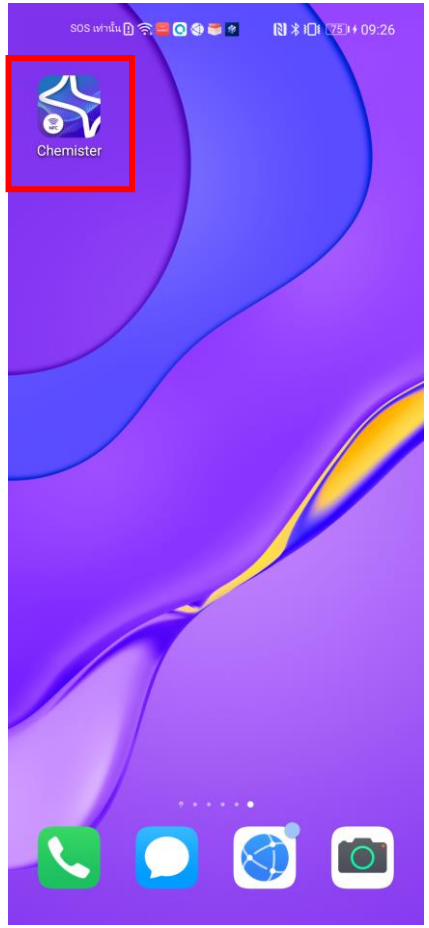
- WE can connect to any within the three pins (red rectangular)
  - IO[0]
  - IO[1]
  - IO[2]
- Set WE, CE, RE pins in the application (Page 4) to match with the electrode connection.

Install and open Android Application

1. Install Android Application from Google Play
https://play.google.com/store/apps/details?id=th.co.sic.nfc.app.flutter.chemister_ver2

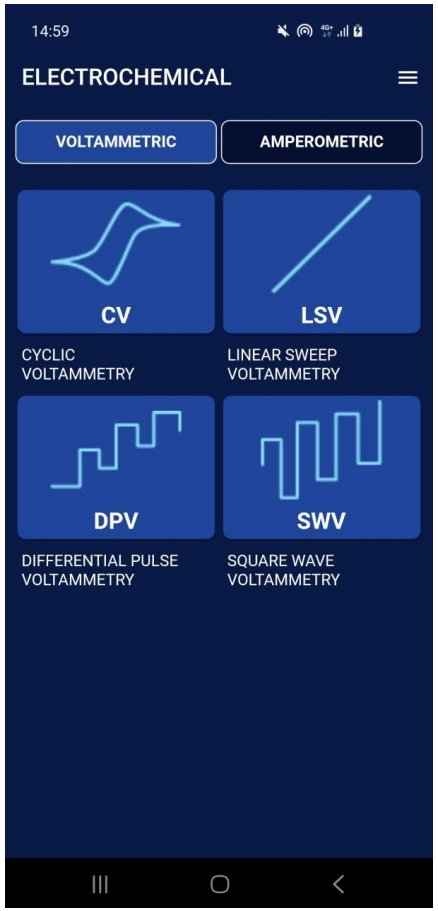


2. Turn on NFC on the phone

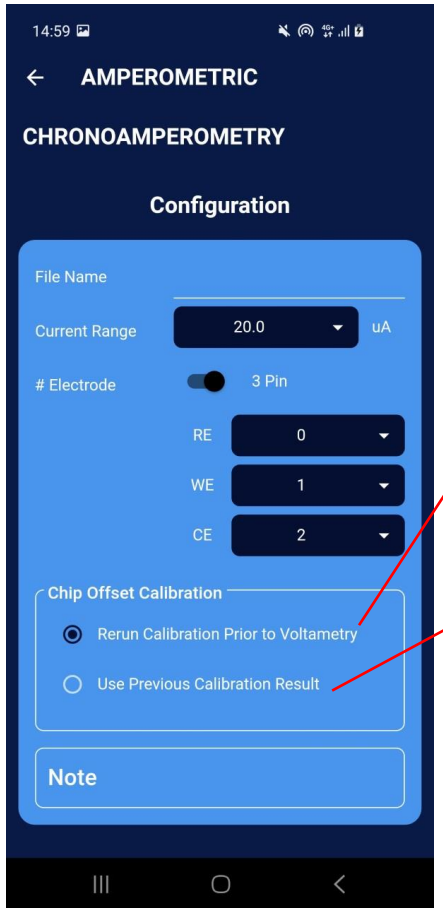


3. Launch the application

Choose measurement mode and setting



Choose the electrochemical method



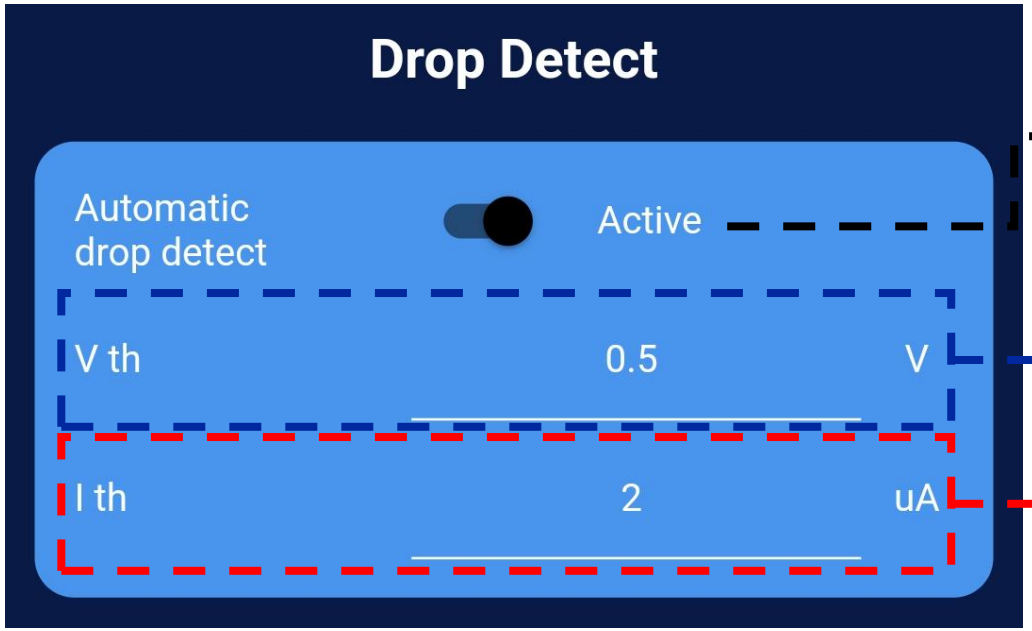
Calibrate the chip before dropping solution

Use calibration data from previous measurement when performing the consecutive test on the same chip without changing any setting.

Set file name, configure the parameters and configure the pin related with electrode, Then click the "Next" button

Drop Detect Feature in Chronoamperometry Mode

Chronoamperometry (CA) mode support auto drop detection feature to start the measurement automatically after drop sample



Enable/Disable drop detection feature

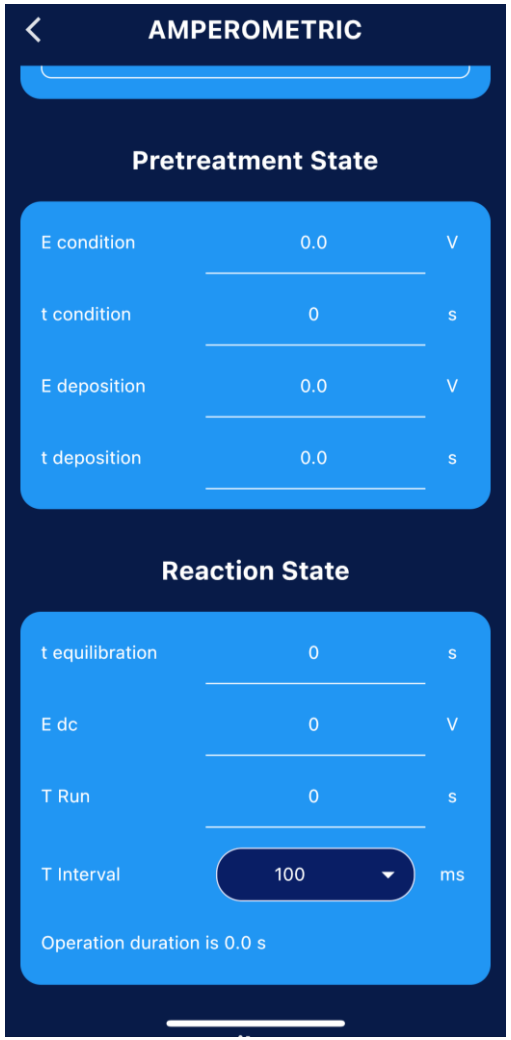
Bias voltage during drop detection process

Threshold current: drop will be detected when current result is higher than this setting

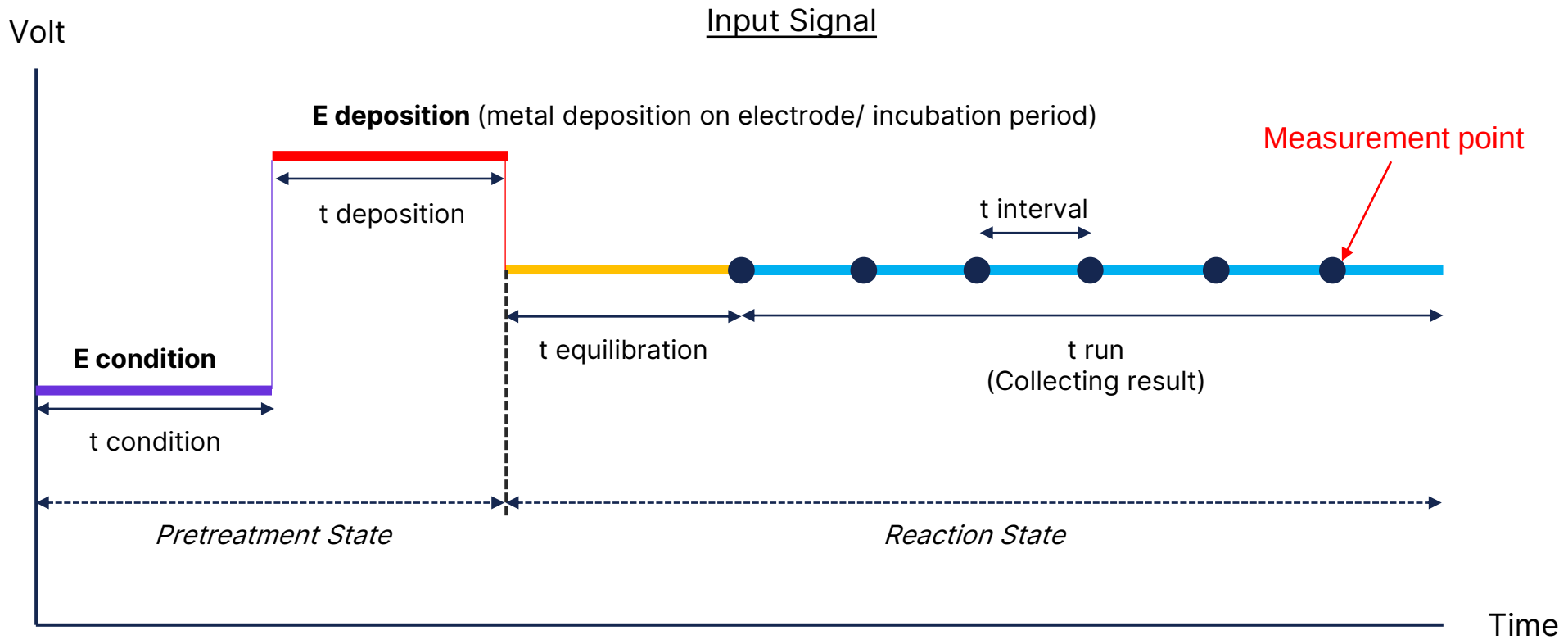
The app will be delayed for 1 second after the detection, then process the next step (as next page)

Parameter Definition - CA

CA Mode

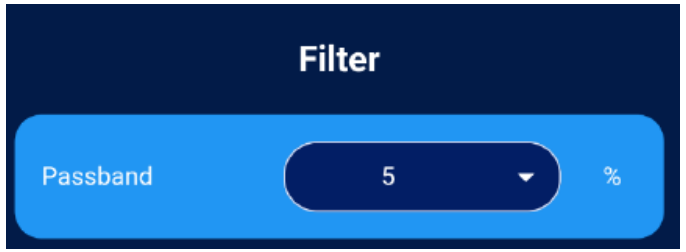


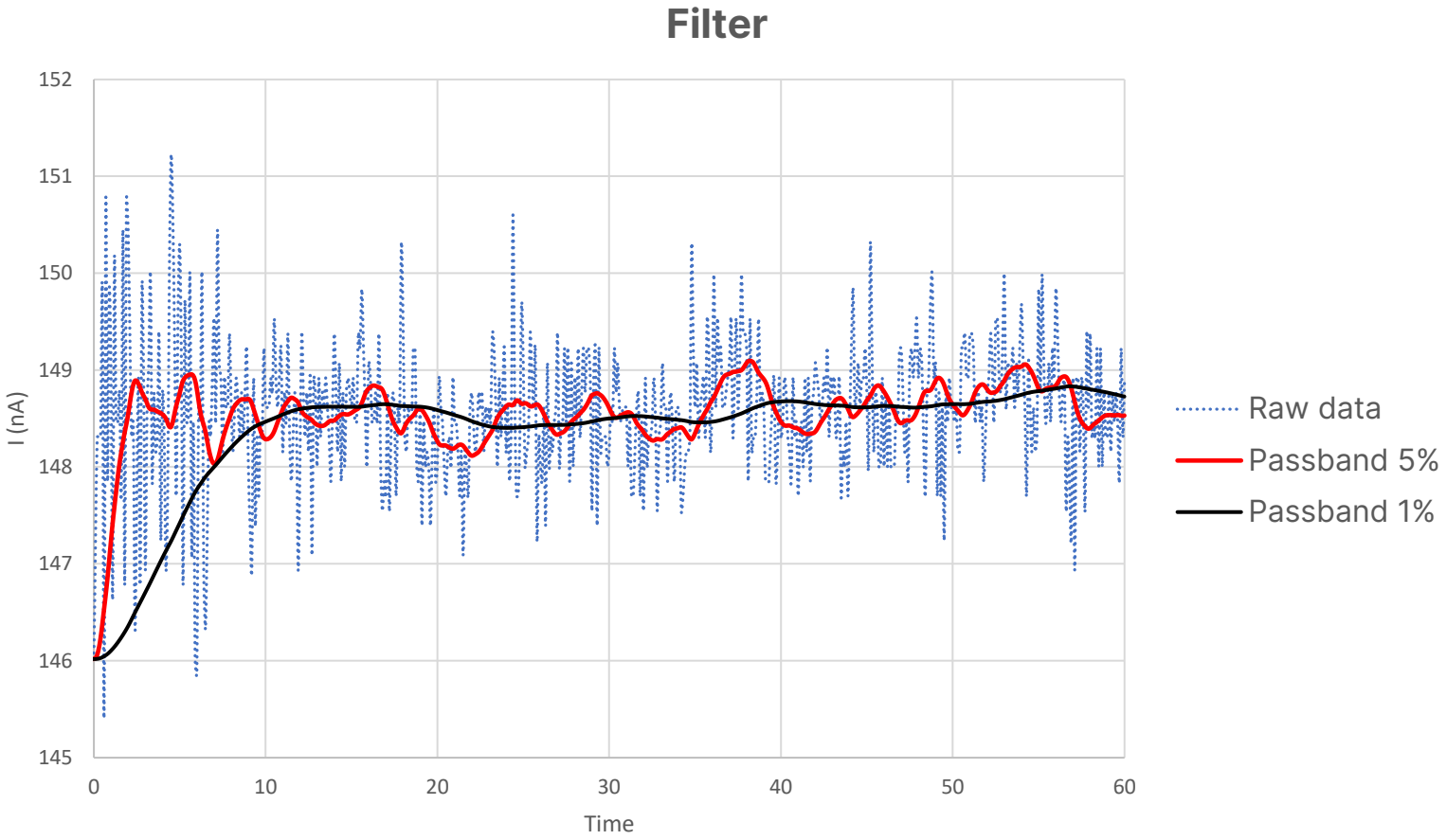
Input Signal



Parameter Definition - CA

CA Mode

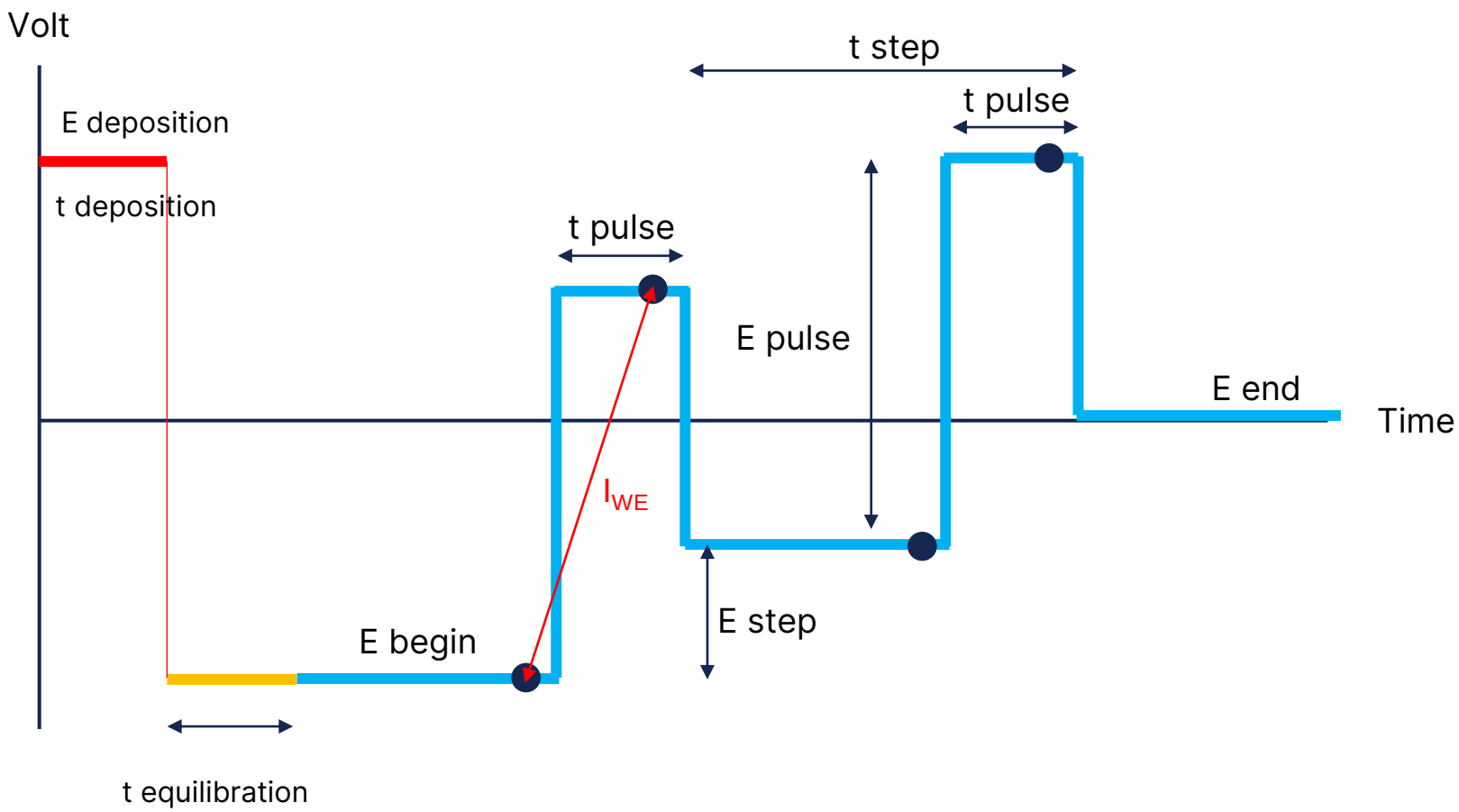




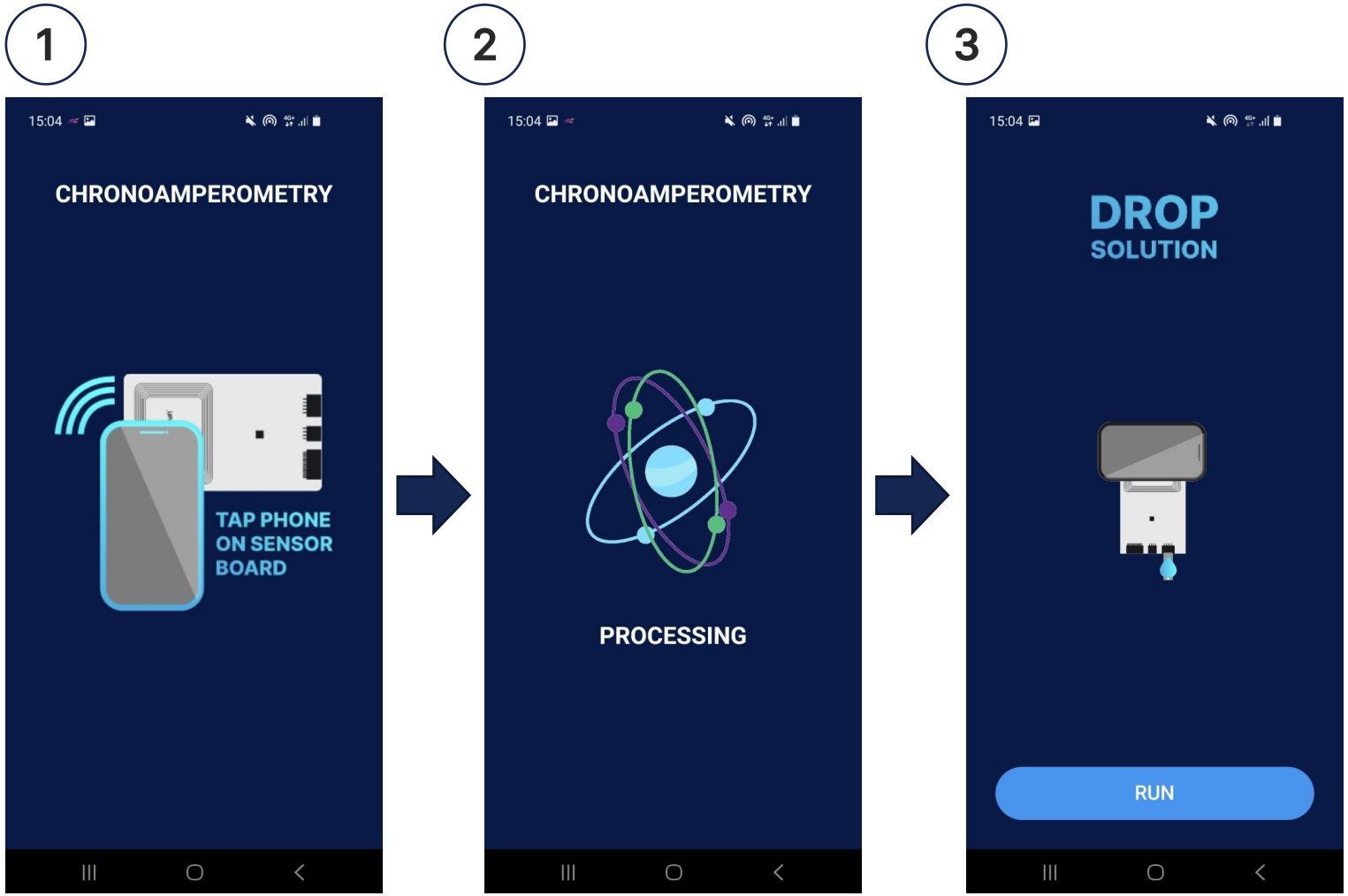
Parameter Definition - DPV

DPV Mode

Input Signal

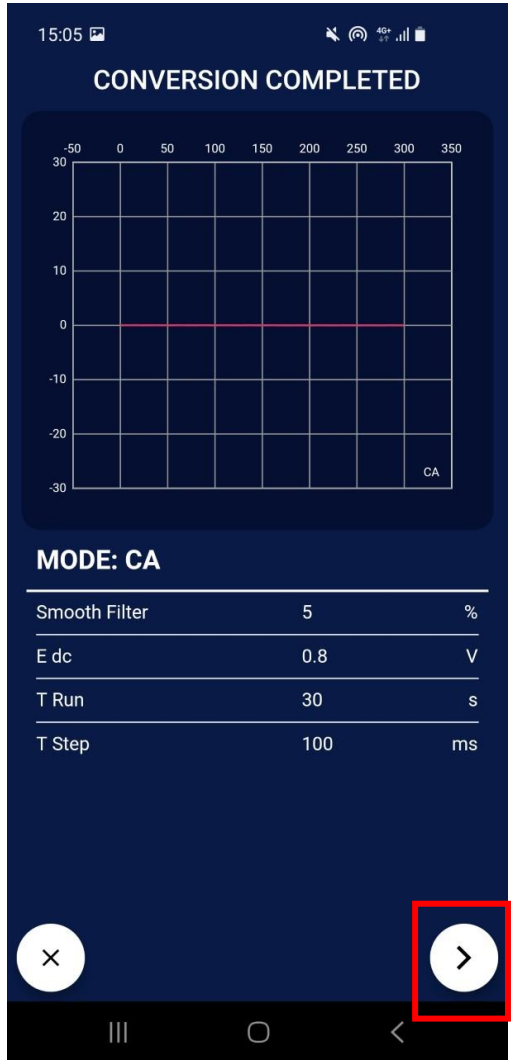


Tap phone and Drop solution



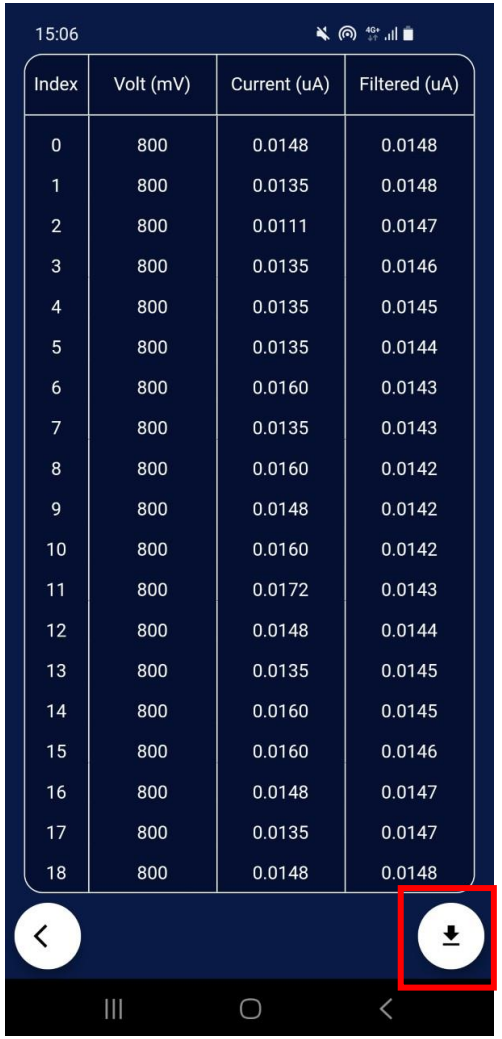
1. Place the phone on the card. It will vibrate when it is connected to the card.
2. Wait for calibration
3. Drop the solution, after dropping press the "RUN" button.

Measurement



Keep waiting until the display shows ‘CONVERSION COMPLETED’. Click the "Next" button.

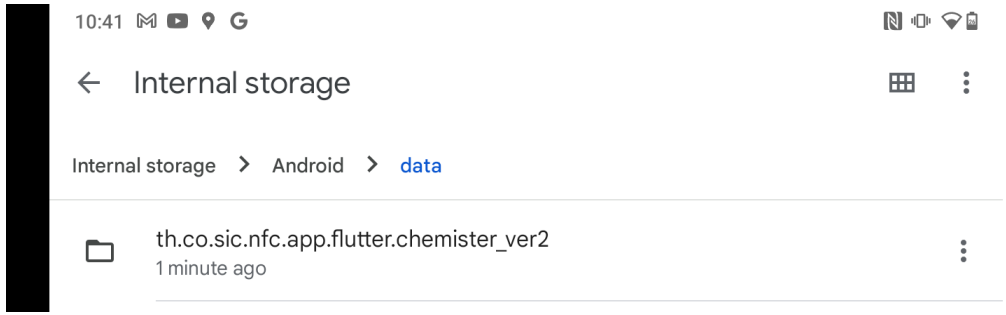
Save the log file



Click download button to save the log file to the phone

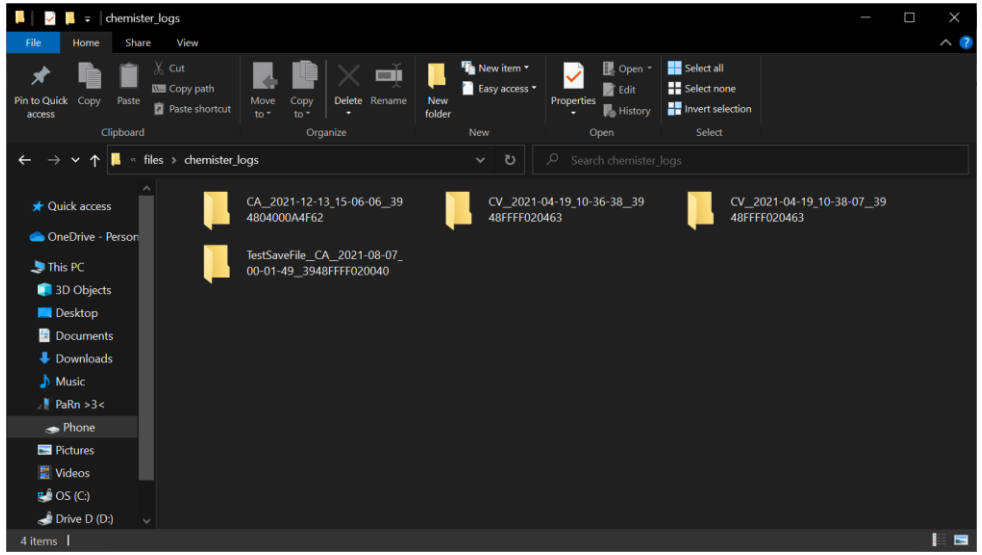
Open Log file

From phone



- Get a log file from ‘Phone\Android\data\th.co.sic.nfc.app.flutter.chemister_ver2\files\chemister_logs’
- Some phones needs to be connected with PC to access this directory.

From PC



PLEASE CONTACT

Silicon Craft Technology PLC

Phone: (66) 2 589 9991
Email: info@sic.co.th

Address: 3rd FL., La Unique Plaza,
Thetsabanrangsannua Rd., Ladyao, Chatuchak,
Bangkok 10900 Thailand