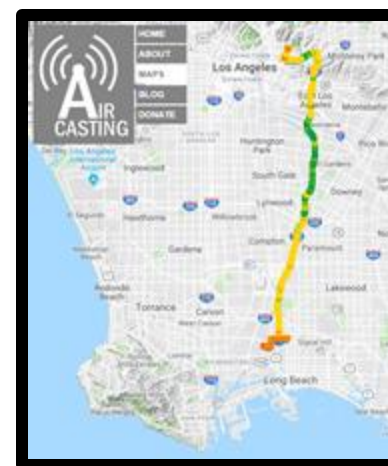# Participatory Community Air Monitoring
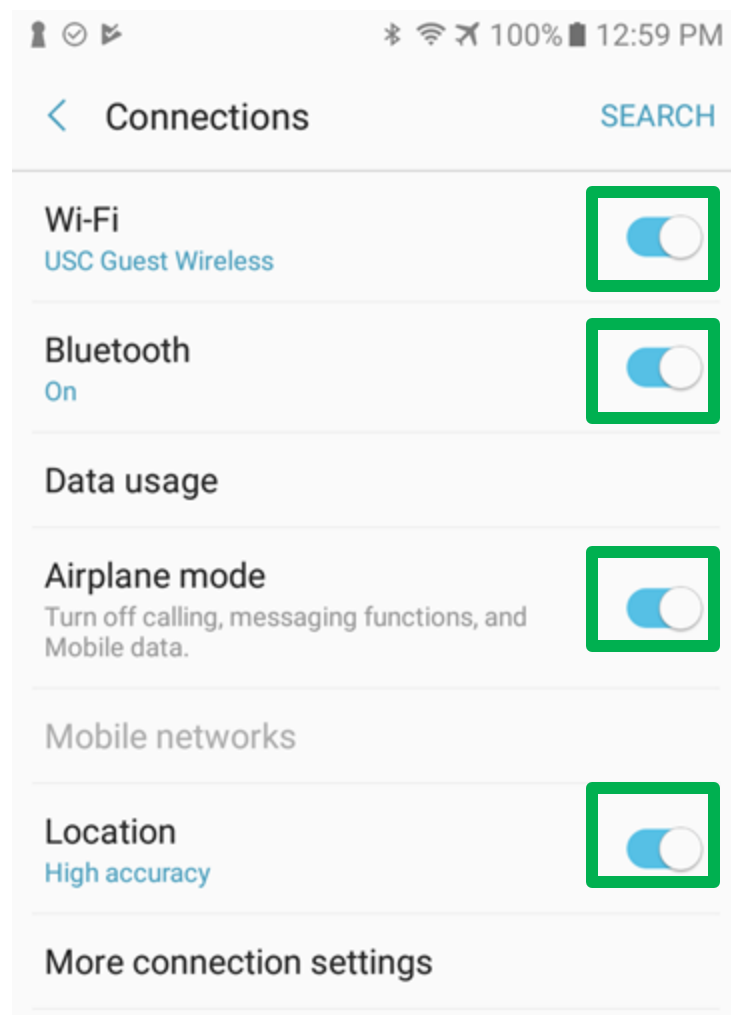
Using AirBeams &
Viewing Data on AirCasting.org

Community Engagement Program on

Health and the Environment

SCEHSC
SOUTHERN CALIFORNIA
ENVIRONMENTAL HEALTH SCIENCES CENTER

MADRES Center for Environmental Health Disparities

USC
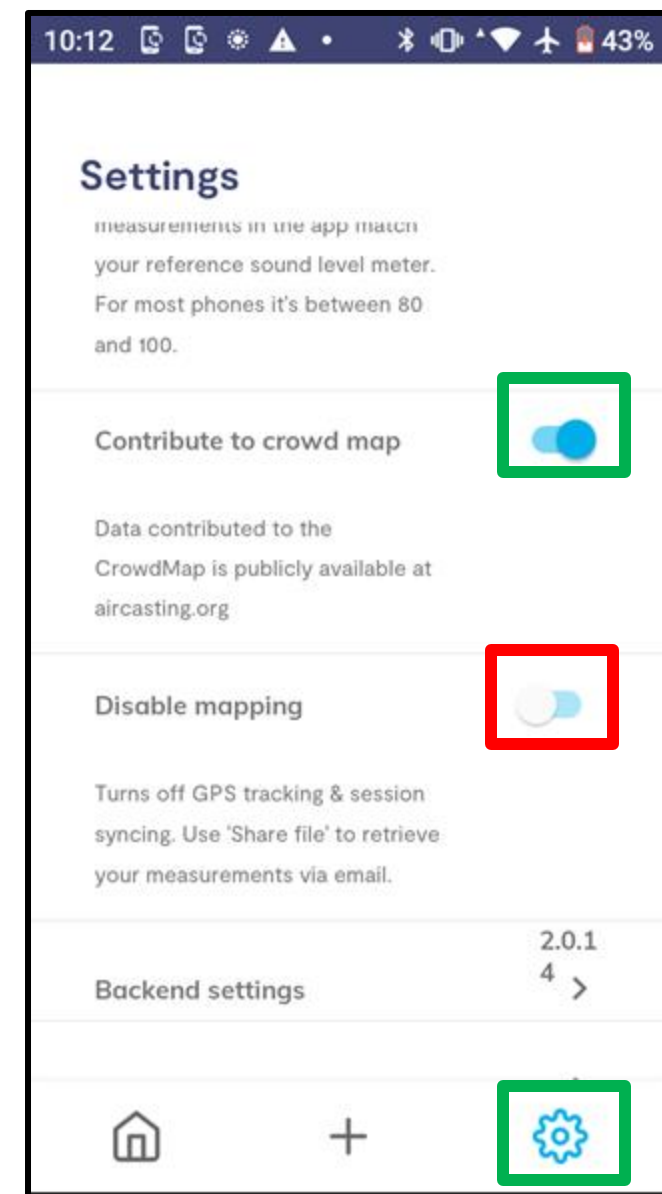Environmental Health Centers

Phone Settings

First:
- Turn on Airplane mode

Then:
- Turn on Bluetooth, Wifi (it does not have to be connected to a network), Location, make sure Low Power Mode is **off**

App Settings

To go to settings, click the gear on the bottom right

Make sure "contribute to crowd map" is on and "Disable mapping" off

USC
Environmental Health Centers

AirBeam 3 Colors

Solid green for 180 seconds = ready to be configured, waiting for Bluetooth connection

Solid Blue = Bluetooth connected

Solid White for 120 seconds= AirBeam successfully configured and sending data

Blink White, once every ten seconds= Bluetooth connected and transmitting data

Blink Orange, once every ten seconds = standalone mode, Bluetooth disconnected, GPS fix present

Blink Yellow, once every ten seconds= standalone mode, Bluetooth disconnected, GPS fix missing

Blink Magenta, once every ten seconds= low power indicator, plug in your AirBeam

Solid Cyan = SD card syncing

USC Environmental Health Centers

Turning on AirBeam 2 & 3

AirBeam2

RED: Warming up

GREEN: Ready to pair

OFF

WHITE: 2mins > when firstpaired
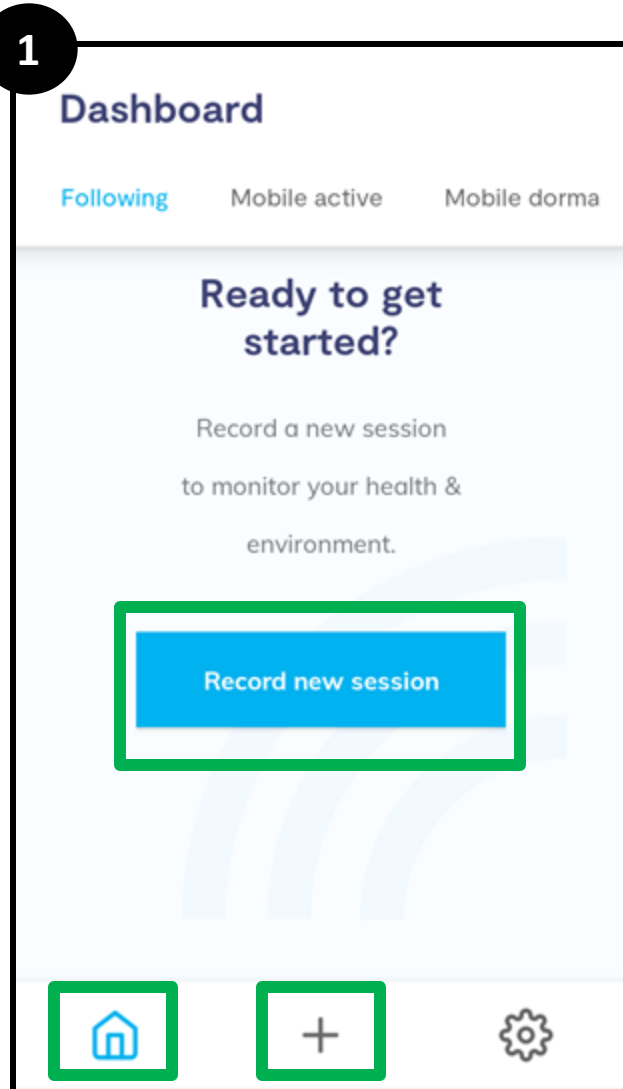
ON & logging data

AirBeam3

OFF

Ready to pair

Connected

Recording

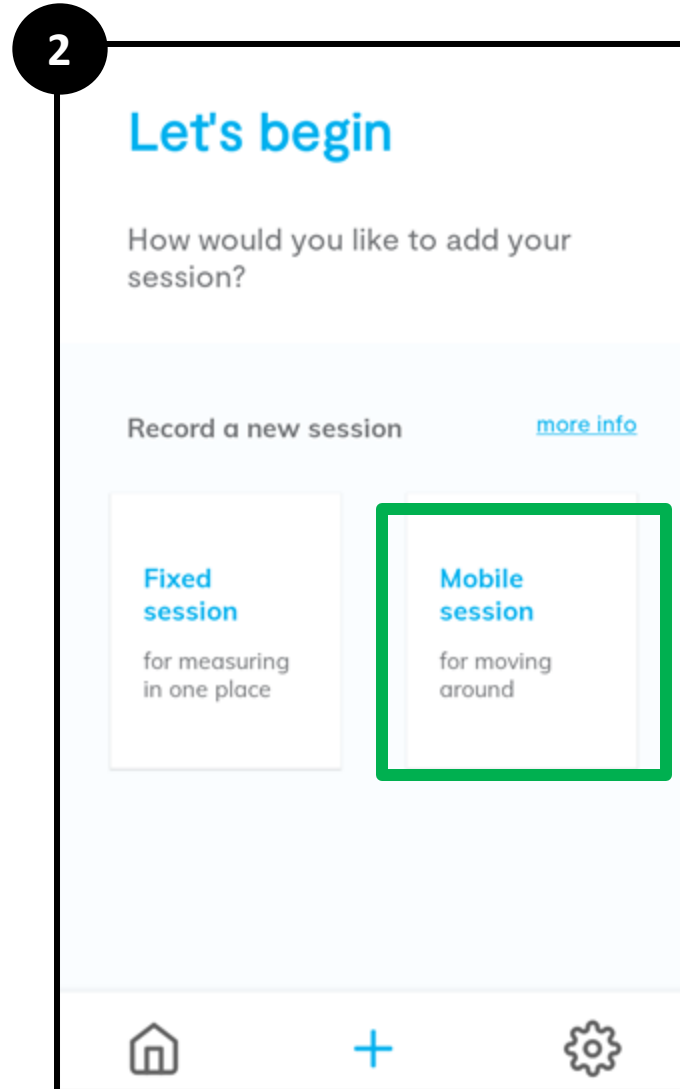- To disconnect a wrong AirBeam, start over
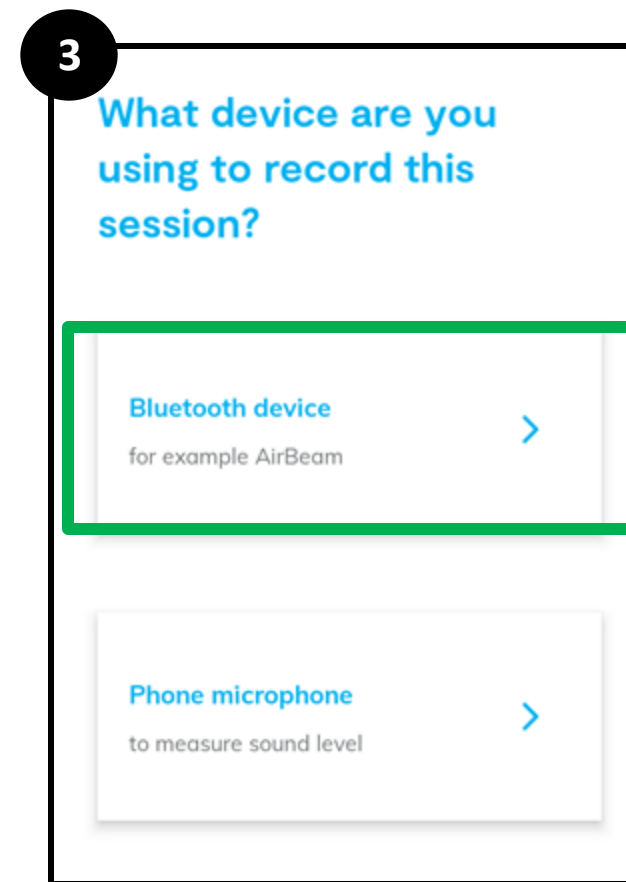- If the lights don't turn on after a while, try to connect AirBeam anyway

USC
Environmental Health Centers

Connecting AirBeam

1

Dashboard

Following   Mobile active   Mobile dorma

Ready to get started?

Record a new session
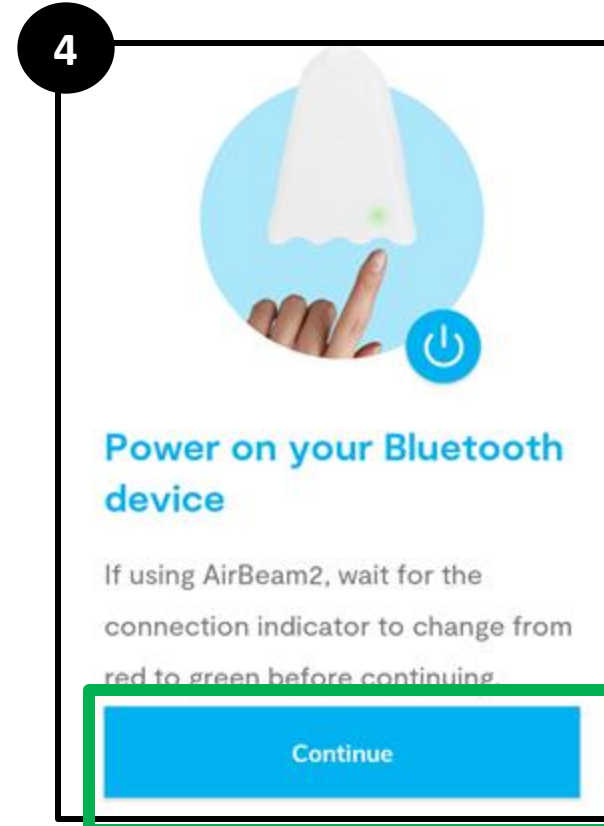
to monitor your health &

environment.

Record new session

Either click the home icon to go to the dashboard OR. Click the **+** icon on the bottom of the screen. Then, click on **Record new session**
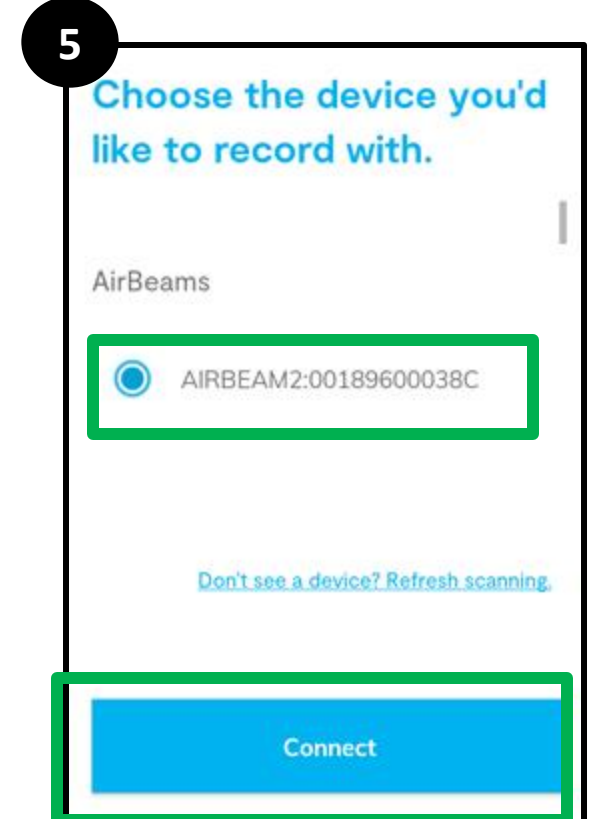
2

Let's begin

How would you like to add your session?

Record a new session   more info

Fixed session
for measuring in one place

Mobile session
for moving around

Click **Mobile Session**

3

What device are you using to record this session?

Bluetooth device
for example AirBeam   ›

Phone microphone
to measure sound level   ›

Click **Bluetooth device**

4

Power on your Bluetooth device

If using AirBeam2, wait for the connection indicator to change from red to green before continuing

Continue

Turn on AirBeam, if not turned on already, and Click **Continue**

5

Choose the device you'd like to record with.

AirBeams

AIRBEAM2:00189600038C

Don't see a device? Refresh scanning.

Connect

Click **Connect**

USC Environmental Health Centers

AirCasting Session

6

New session details

uscehc17

uscehc17

Continue

Name session using USCEHC__. Click **Continue**

7

Click **Start Recording**

8

Dashboard

Following   Mobile active   Mobile dorma

09/20/21 10:32

uscehc17

Mobile: AirBeam2

Last second measurement:
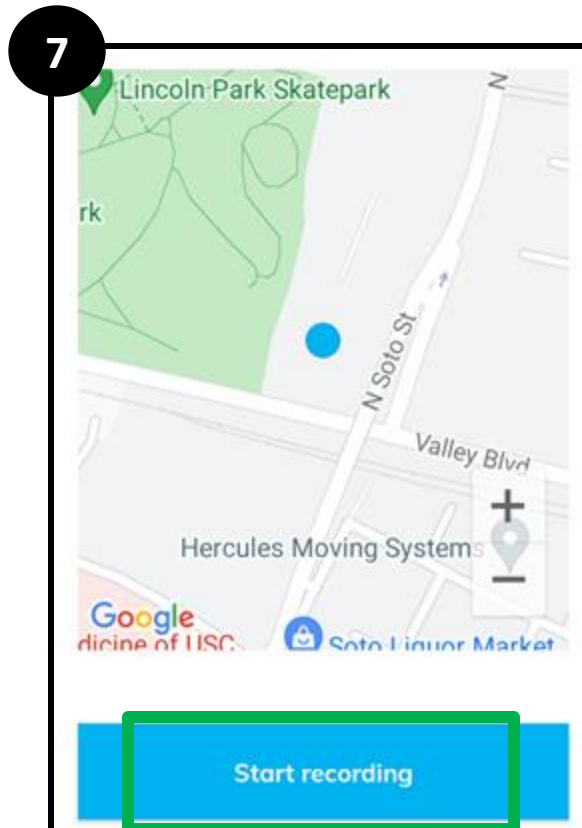
F	PM1	PM2.5	PM10	RH
84	5	10	11	58

Click **Mobile active,** the click the down arrow

9

Dashboard

Following   Mobile active   Mobile dorma

09/20/21 10:32

uscehc17

Mobile: AirBeam2

Last second measurement:

F	PM1	PM2.5	PM10	RH
84	5	10	11	57

84

10:35
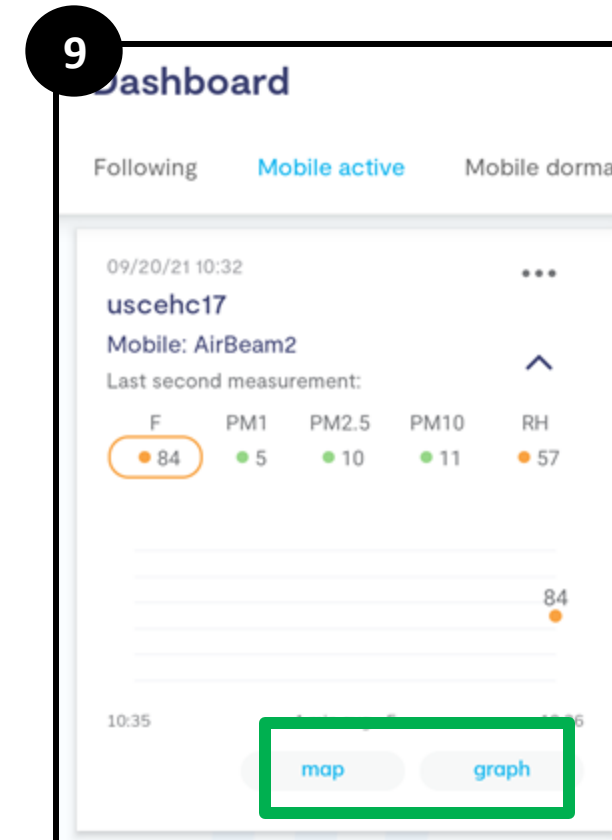
map   graph

Click **map** or **graph**

map

graph

09/20/21 10:32

uscehc17

Last second measurement:
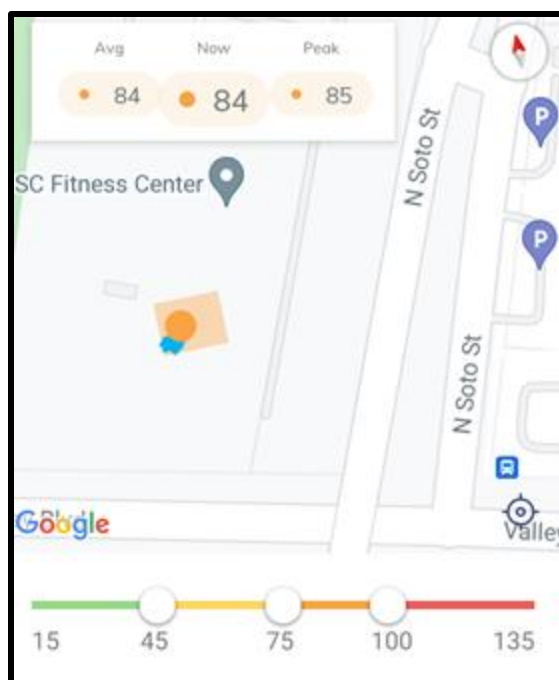
F	PM1	PM2.5	PM10	RH
84	5	10	11	57
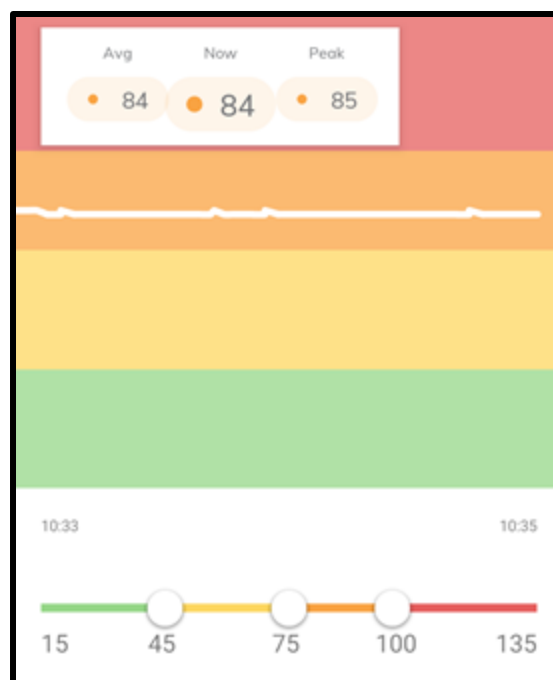
Click on measurement you want to see (F, PM1, PM2.5, PM10, RH)

End AirCasting Session

10
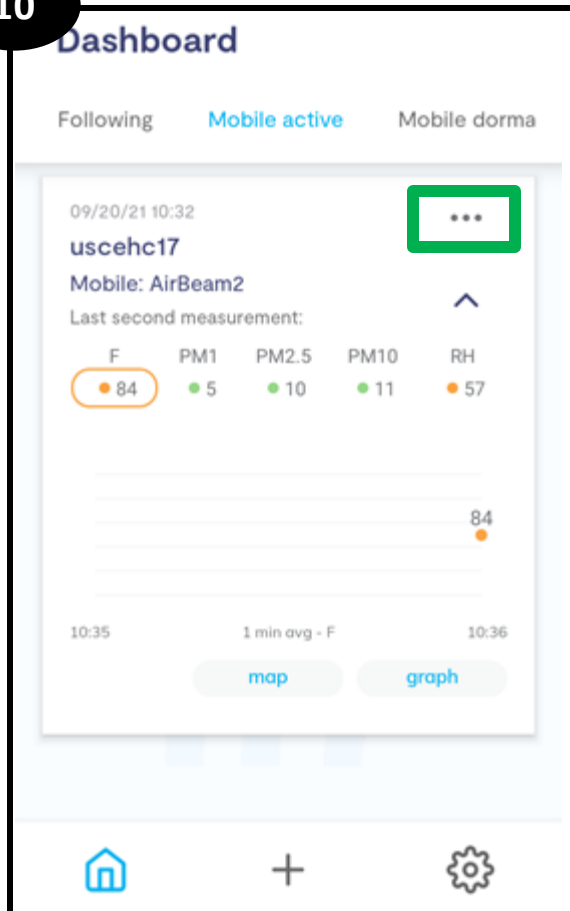
Click on the three dots

11
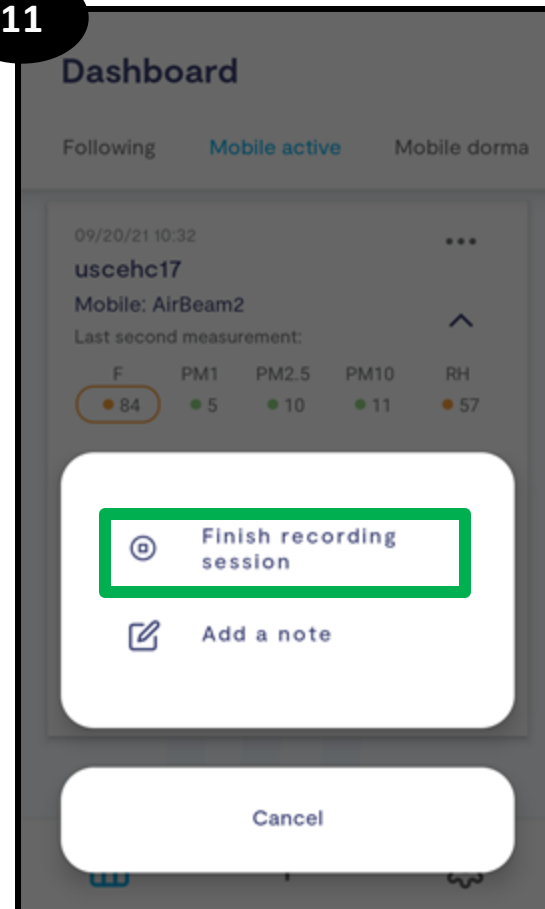
Click **Finish recording session**

12
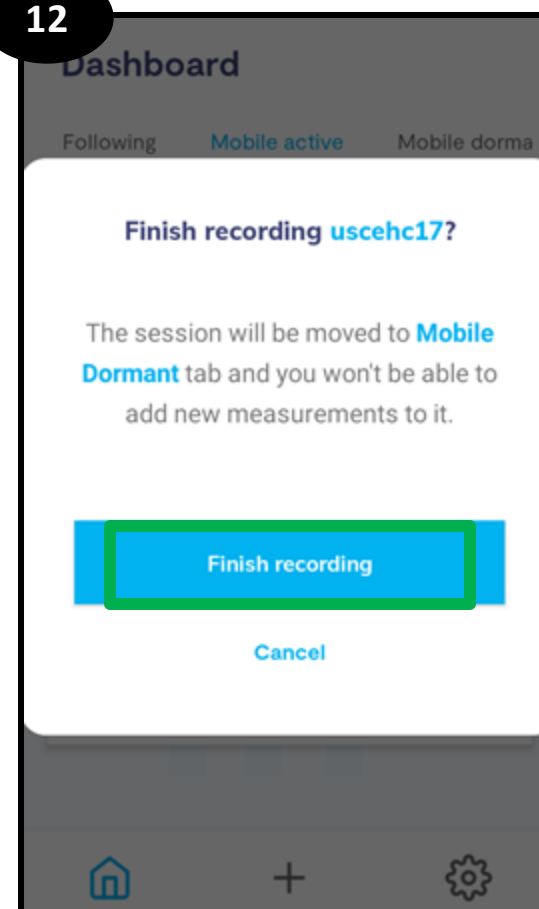
Click **Finish recording**

13
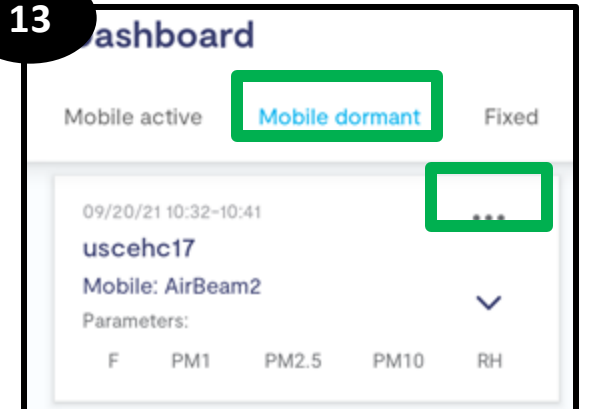
To view recorded sessions click **Mobile dormant** and click the three dots

14

Click **Share session**

15
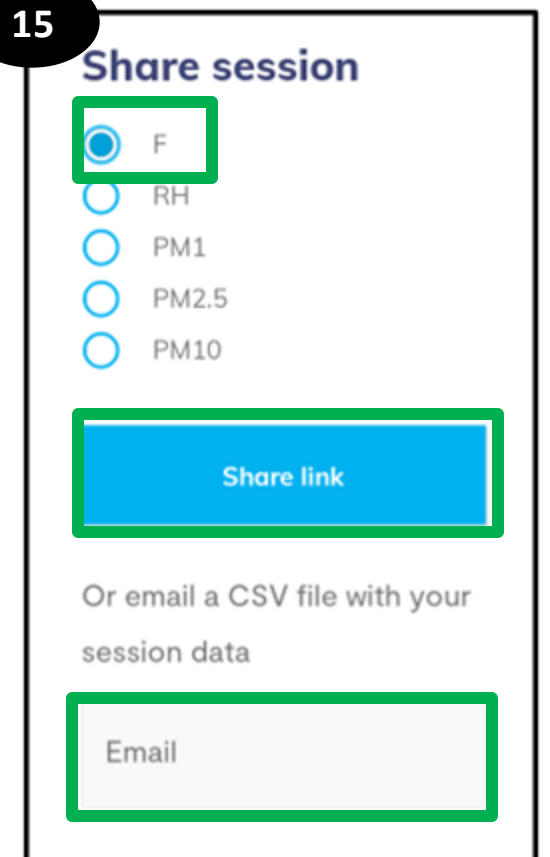
Choose desired measurement. Export data through **Share link** or **Email**

USC
vironmental Health Centers
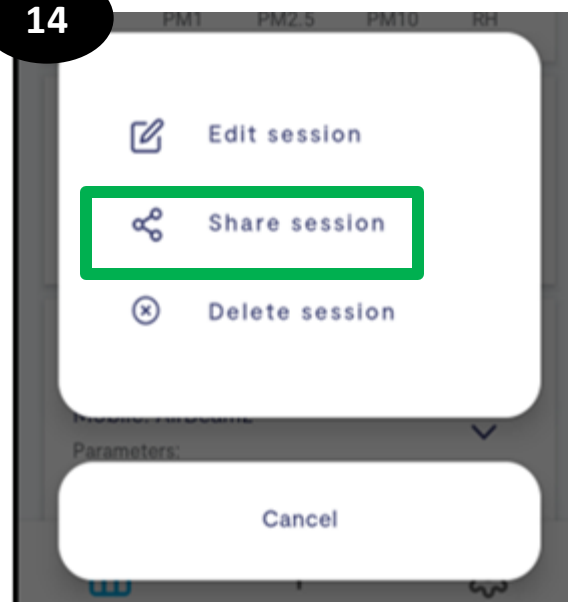
Standalone Mode

Note that an iPhone 8 or higher or an Android 8 or higher plus Bluetooth 5 device is required to utilize the Standalone Mode and Sync SD Card features
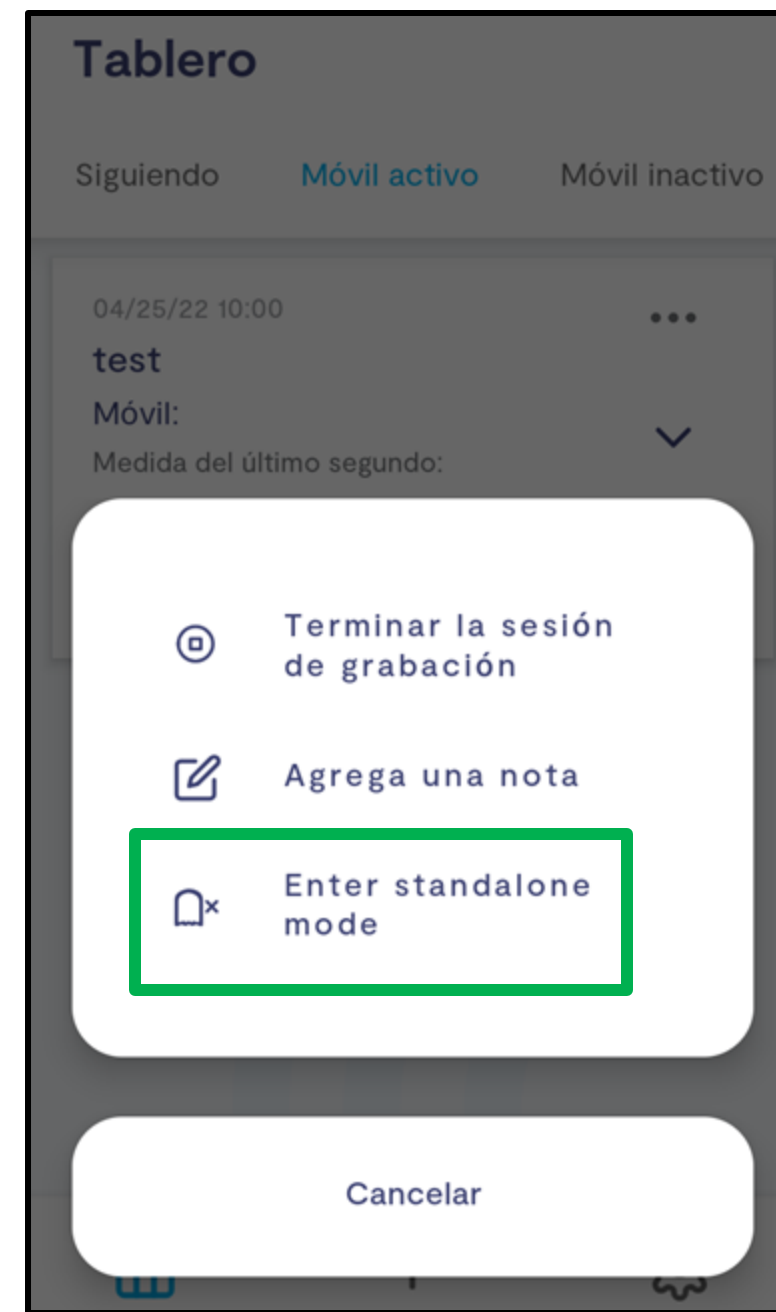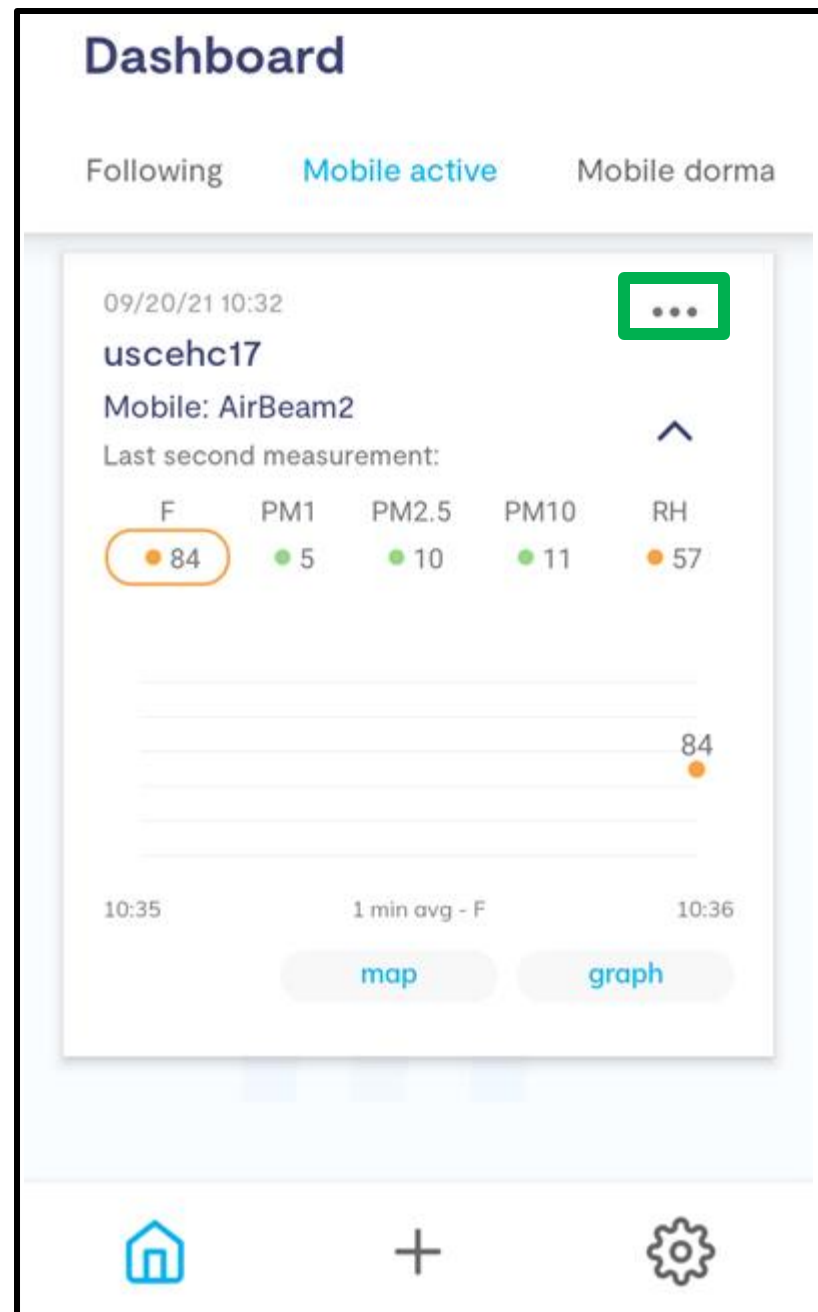
End Session and Sync Data

1

Dashboard

Following   **Mobile active**   Mobile dorma

04/25/22 12:15

test

Mobile: AirBeam3

Your AirBeam3 is now in stand-alone mode

AirBeam3 is now recording using its SD card. The measurements will be displayed here after syncing.

Finish recording & sync

Finish recording & don't sync

2

Success

Sessions were updated successfully.

Continue

3

Select the device you'd like to sync

AirBeams

○ AIRBEAM2:00189600038C

○ AIRBEAM2:001896000032

Don't see a device? Refresh scanning.

Connect

Select your AirBeam

4

Restart your AirBeam

Turn your AirBeam off and then back on.

Continue

5

Sync complete

The data from your AirBeam3 was synchronized successfully to the app. The SD card was cleared.

Continue

Sync Data Whenever

1

Let's begin

How would you like to add your session?

Record a new session   more info

Fixed session   Mobile session
for measuring in   for moving
one place   around

or

Sync data
from AirBeam3
if you recorded
with AirBeam3

2

Success

Sessions were updated successfully

Continue

3

Select the device you'd
like to sync

AirBeams

○ AIRBEAM2:00189600038C

○ AIRBEAM2:001896000032

Don't see a device? Refresh scanning.

Connect

Select your AirBeam

4

Restart your AirBeam

Turn your AirBeam off and then back on.

Continue

5

Sync complete

The data from your AirBeam3 was
synchronized successfully to the app. The SD
card was cleared.

Continue

View Sessions on Air Casting Website

1 Go to: habitatmap.org/aircasting

Select Maps
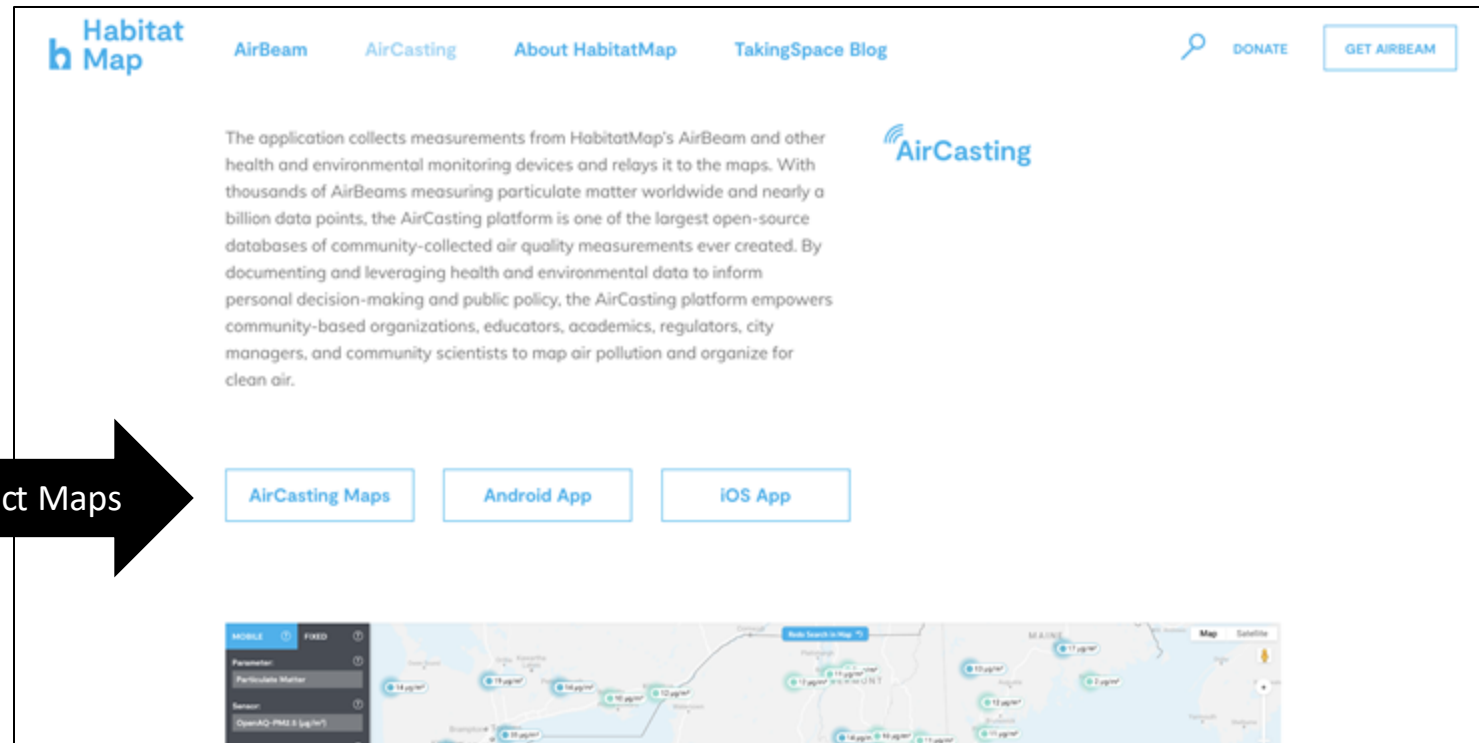
2

Use the panel to search for your sessions by tags, profile name, location, etc.
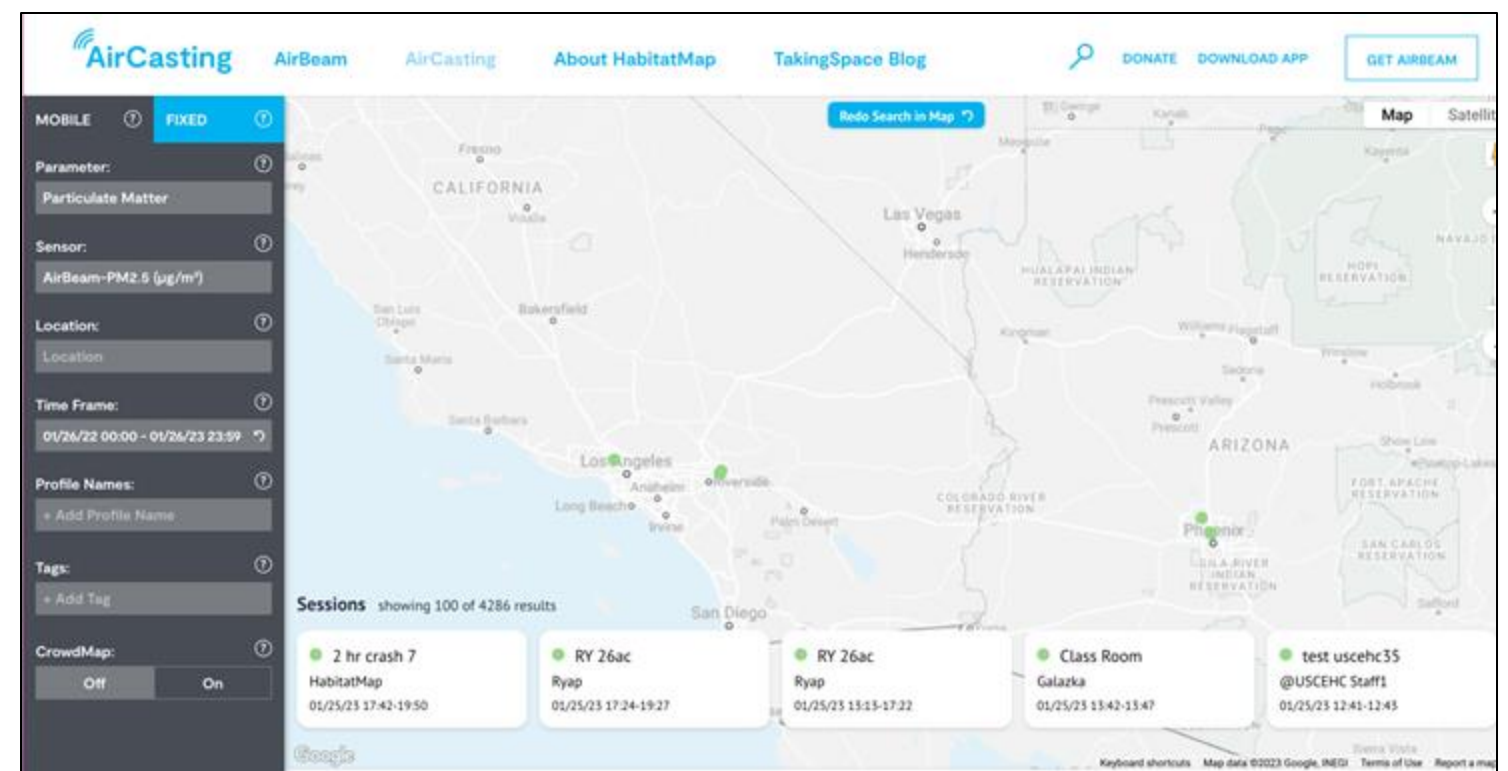
Truck counting and monitoring

- Log sheets
- Roles of each person
- Supplies: monitors, clipboards, pens, masks, personal items like water, hat, sunscreen, etc.
- 2 p-trak transporters
- 1 airbeam carrier
- 1 truck counter
- 2 people to write on log sheets (Ptrak and AirBeam)

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SOUTHERN CALIFORNIA
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Community Engagement Program on Health and the Environment

For questions regarding the content of this document, please contact Dayane Dueñas Barahona: duenasga@usc.edu

https://ejresearchlab.usc.edu/resources/