

# Hands-On Section

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# Prebuilt LSL SDKs for Workshop:

<http://tiny.cc/9px0dz> (Google Drive)

or <ftp://sccn.ucsd.edu/pub/software/LSL/SDK/>

or [https://github.com/labstreaminglayer/App-\\*/  
Releases](https://github.com/labstreaminglayer/App-*/Releases)



# Local Wifi

- Intheon-5G (or -2G)
- Password: [deleted]



# Hands-On Exercises: Receiving Data

- Try to read from live Cognionics device; the stream **type** is **EEG** and the **name** is **Cognionics Quick-20 20CH 1704Q20Q**
  - If you use a query string, use **type='EEG'**
  - You could also do:  
**starts-with(name, 'Cognionics')** and **type='EEG'**
- Try to read from Tobii eye tracker; stream **name** is **eye**
- Try to read from audio (mic) stream; stream **type** is **Audio**
- Try to read from event marker stream stream **name** is **MyEventStream**



# Bonus Points

- Play the audio in real time
- Draw eye tracking gaze cursor on screen
- Compute my EEG alpha power



# Hands-On Exercises: Sending Data

- Broadcast your on regularly sampled time series (for example, fake EEG or Gaze)
  - Choose a unique name
- Try to read from the streams of other users
  - Note: try to not hard-code the channel count, or read data into a buffer that can accommodate enough channels
  - If you **do** hardcode, let's assume we use 8 channels for fake EEG, 2 channels for fake eye Gaze



# Bonus Points

- Read from some hardware that is actually available on your PC and stream that out (ex.: PC mouse, microphone, webcam, ...)



# Troubleshooting Tools

- LSL comes with simple command-line applications that send and/or receive simple streams (e.g., `SendStringMarkers/ReceiveStringMarkers`, `SendData/ReceiveData`)
- If unsure whether the bug is in your application, can check if these tools can or cannot transmit – on a properly configured machine, these tools should **always** be able to transmit
- Another useful tool resolves all streams visible on the network and shows their exact metadata (`GetAllStreams`)



Thanks! 😊

Q&A until 6:20pm

