# PROGRAMACIÓ BLUETOOTH

# HOLA!

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https://github.com/cmorell
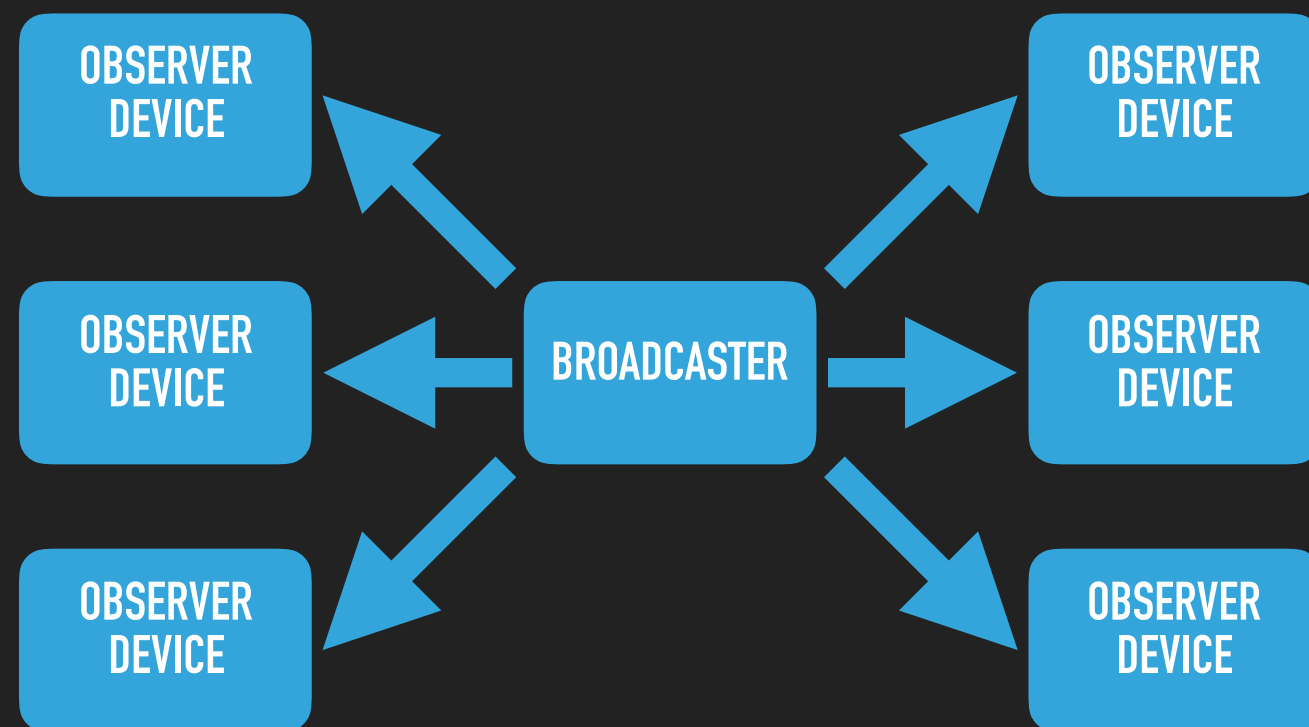
# ÍNDEX

▶ Com funciona?

▶ Com configurem?

▶ Codi

# COM FUNCIONA?

▸ Hi ha dues maneres de comunicar-se

  ▸ Sense connexió (Broadcasting and Observing)
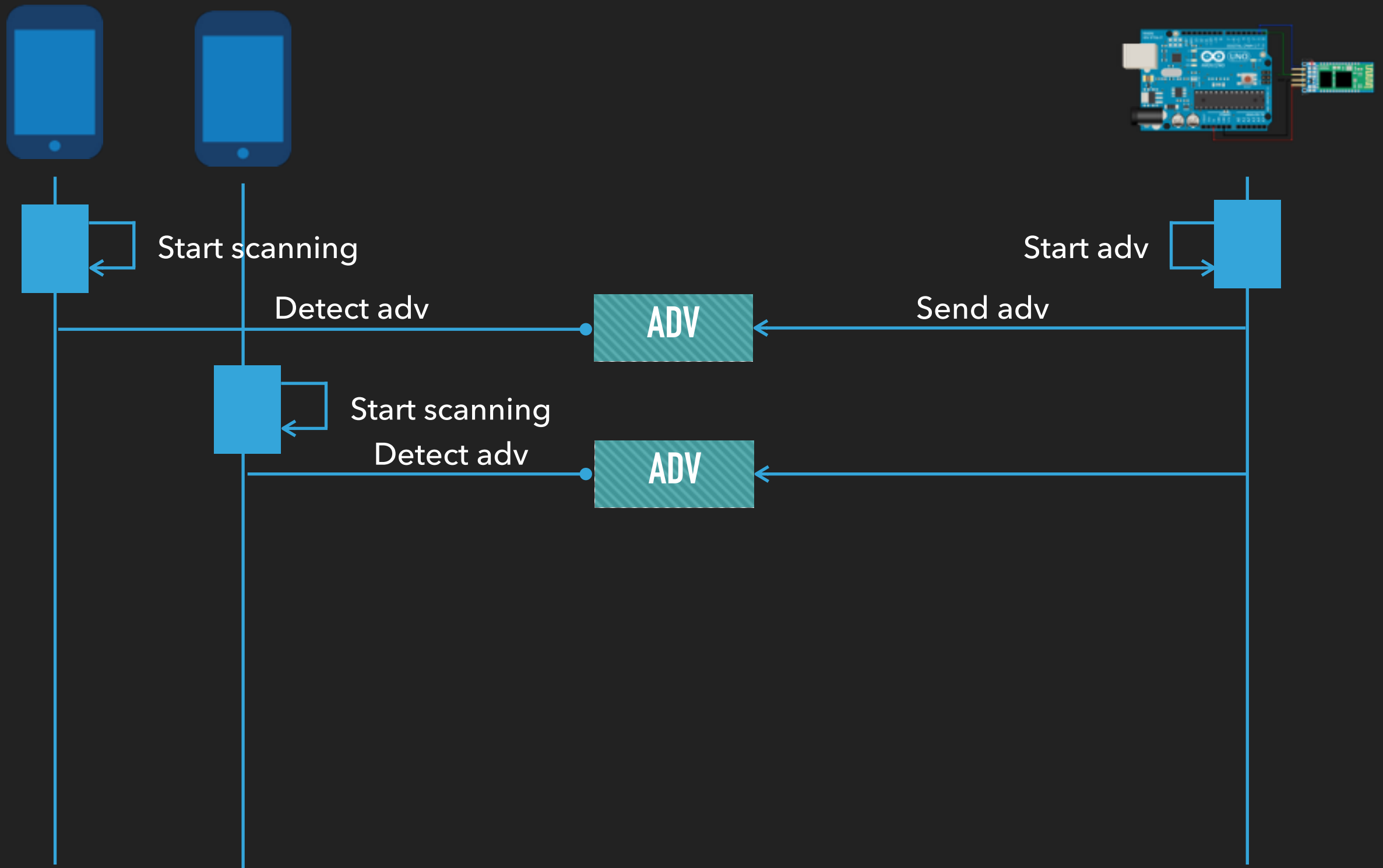
  ▸ Amb connexió (Central and Peripheral)

# BROADCASTING AND OBSERVING

▸ Sense connexió, unidireccional, 1 a molts (Broadcaster to observer(s))



▸ Broadcaster: Envia advertisaments de forma periódica

▸ Osbserver: Rep els advertisaments

# BROADCASTING AND OBSERVING

# HOW CONFIGURE?

▸ Observer

  ▸ Setting up BLE

  ▸ Set up filter if you want
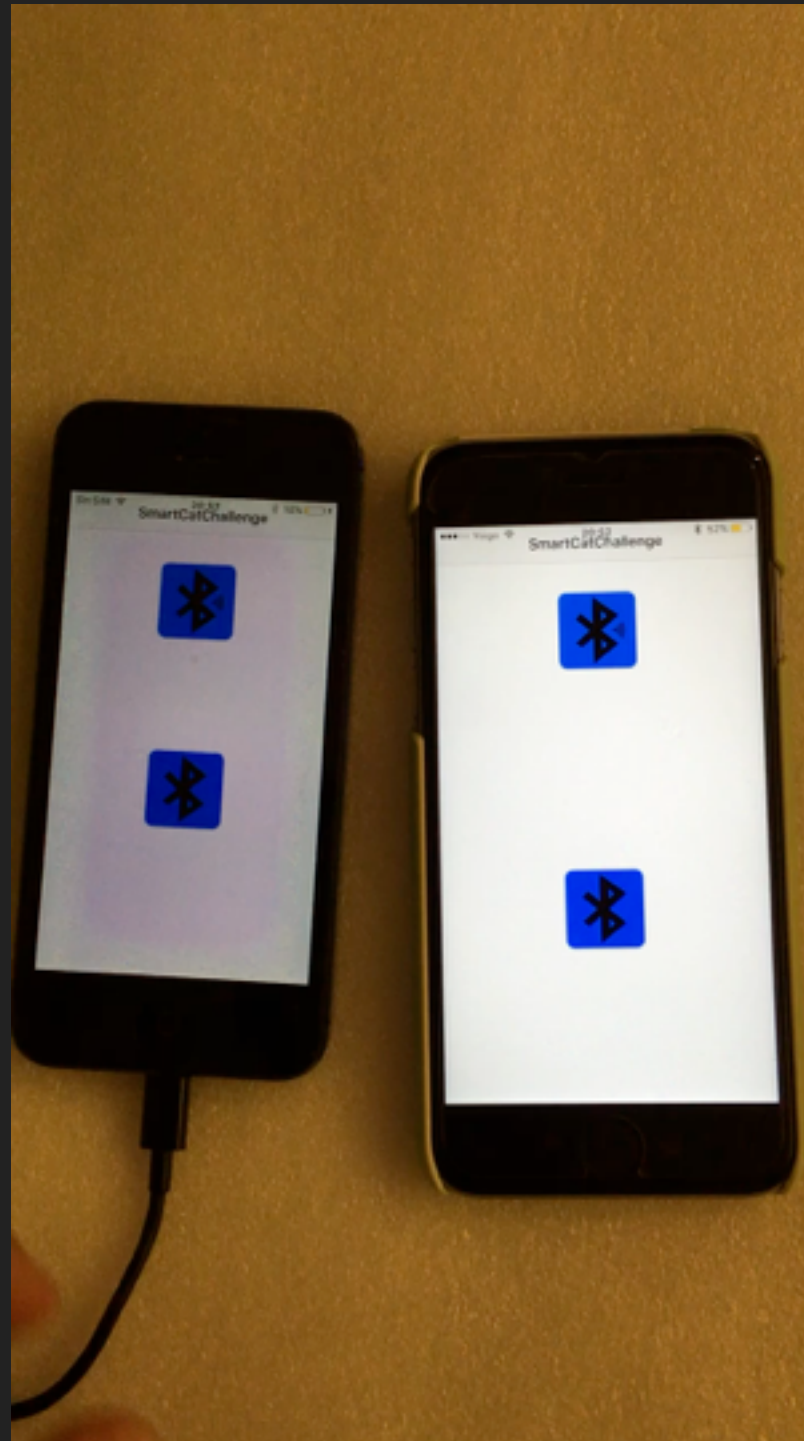
  ▸ Scan

  ▸ Detect adv packets

▸ Advertise

  ▸ Setting up BLE

  ▸ Set up advertise packet

  ▸ Advertise your device

# DEMO

# CONNECTIONS

▶ Directa i bidireccional
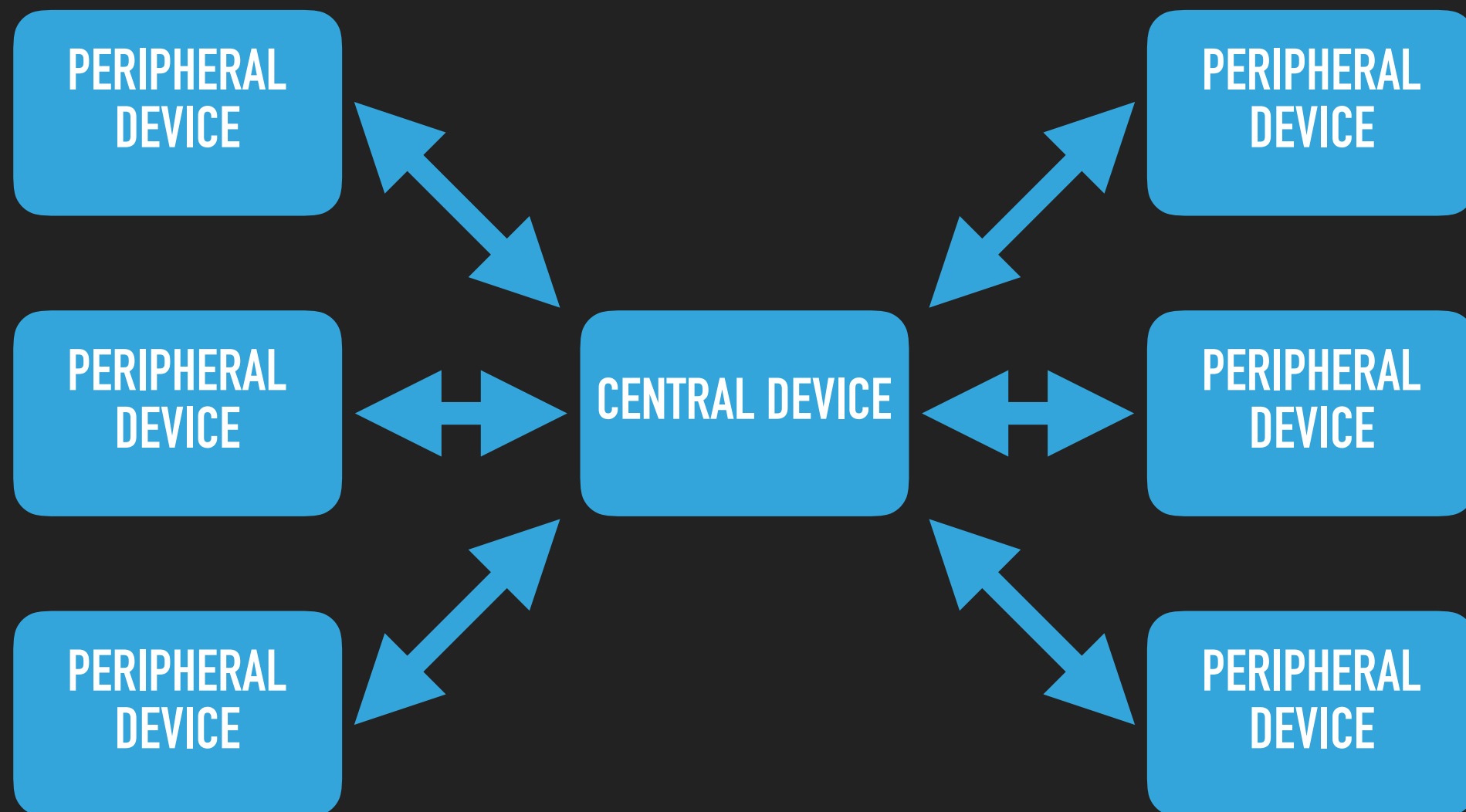
# CONNECTIONS – COM ENS COMUNIQUEM AMB ELS PERIFÈRICS?



Start scanning

Start adv

Detect adv | **ADV** | Send adv

Connect Peripheral

Ask for Services & Characteristics

Send Services & Characterics

Subscribe to Characterics
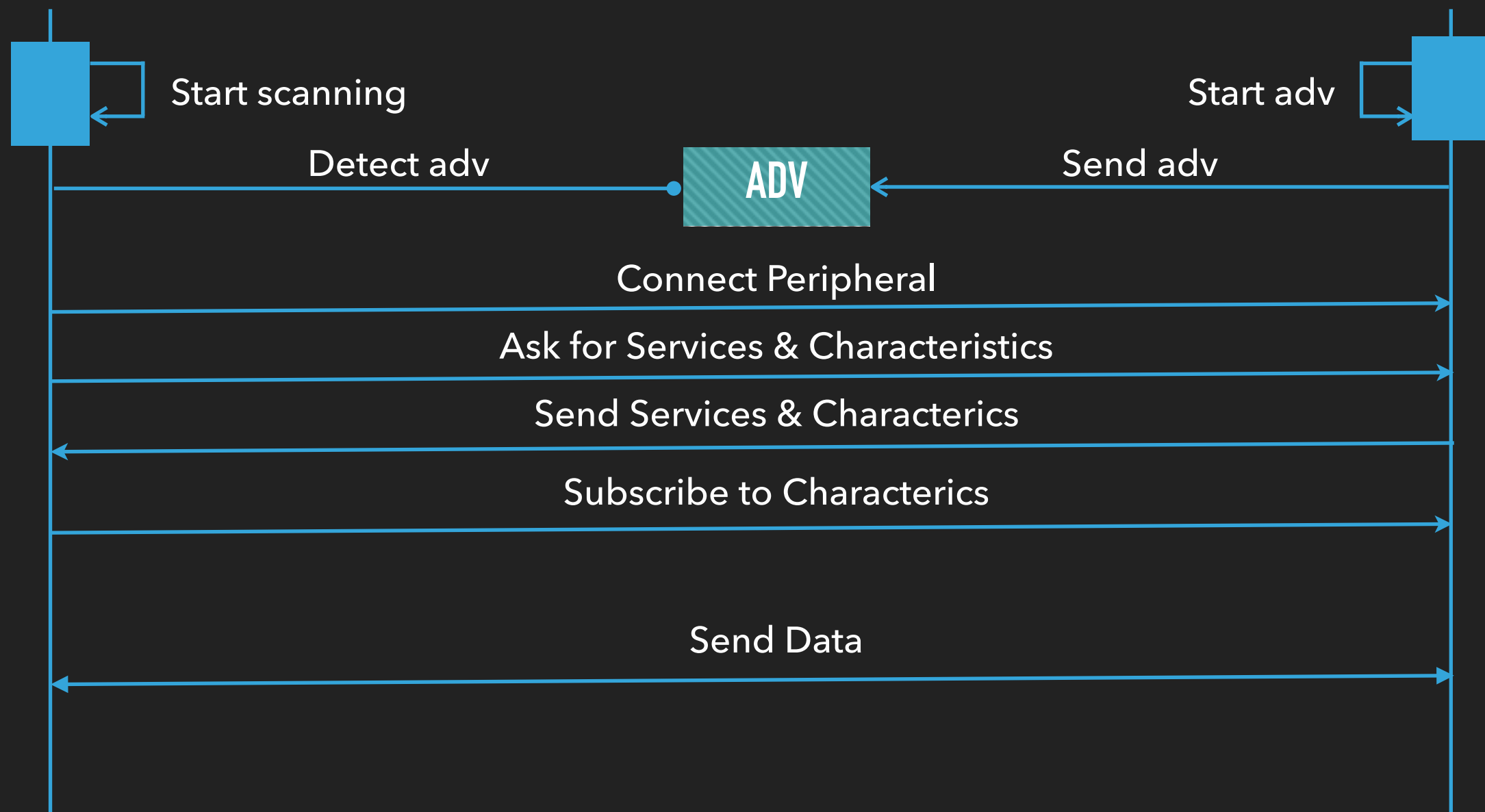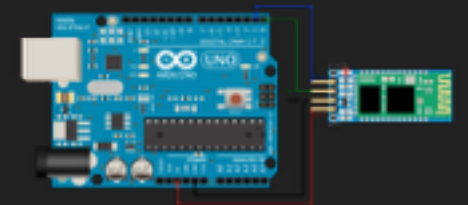
Send Data

# HOW CONFIGURE?

▸ Central

  ▸ Setting up BLE

  ▸ Discover and connect to peripheral devices

  ▸ Explore peripheral

  ▸ Subscribre to the characteristics to get/send data

▸ Peripheral

  ▸ Setting up BLE

  ▸ Set up services and characteristics on your local peripheral BLE Device

  ▸ Advertise your services

  ▸ Respond to read and write requests from a connected central

  ▸ Send updated characteristic values to subscribed centrals

# DEMO

# GRÀCIES!,

## CODING TIME! 💪

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