

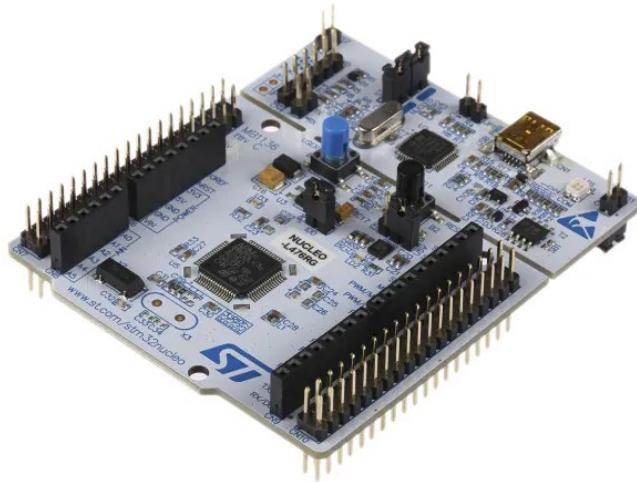


# DeSEnet Demo

# Sensor Hardware

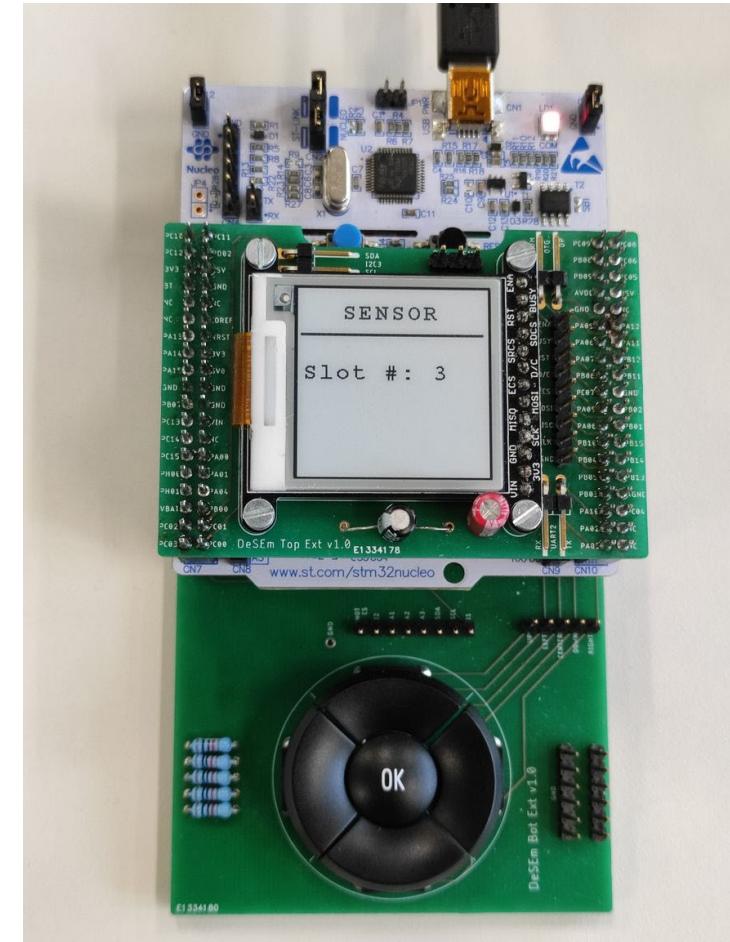
## Nucleo STM32L476RG:

- 32-bit ARM Cortex-M4
- 128 kB RAM / 1 MB FLASH
- On-board SWD programmer



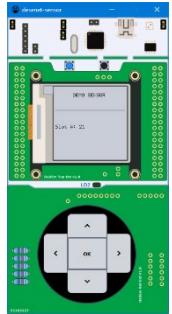
## Extension Cards:

- ePaper display 200 x 200 pixels (monochrome)
- 3-axis accelerometer (LIS3DH)
- 2.4GHz transceiver from Nordic (nRF24L01+)
- Navigation switch (5 buttons)



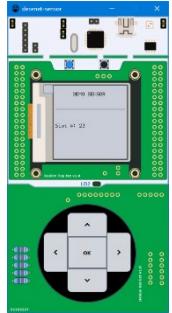
# Simulation Topology

Runs entirely on PC



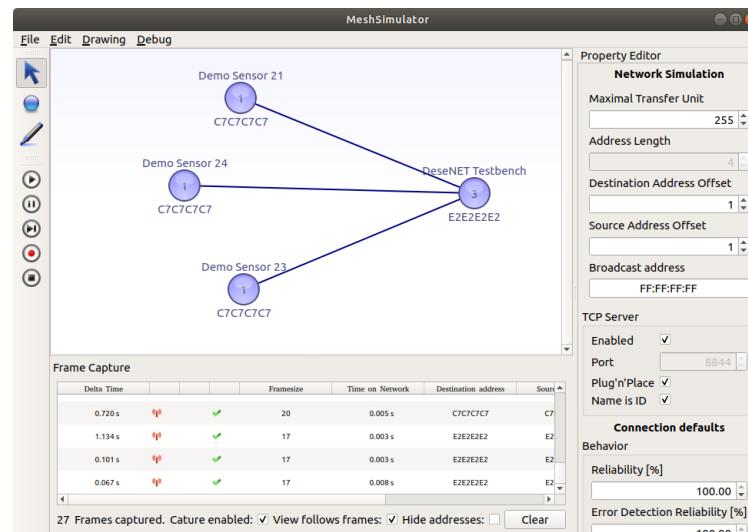
TCP / IP

Sensor #21

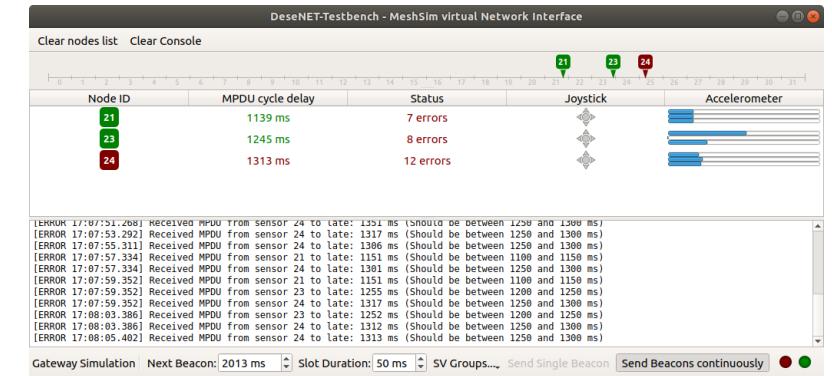


TCP / IP

Sensor #23



Mesh Simulator



Testbench

TCP / IP

# Practical / Real Topology

Testbench running on teachers PC



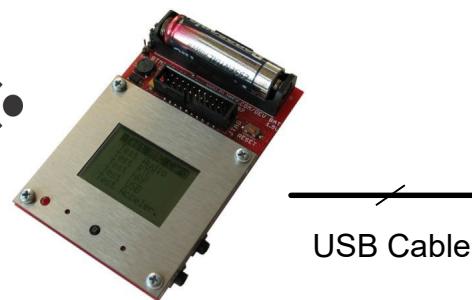
Sensor #21



Sensor #23

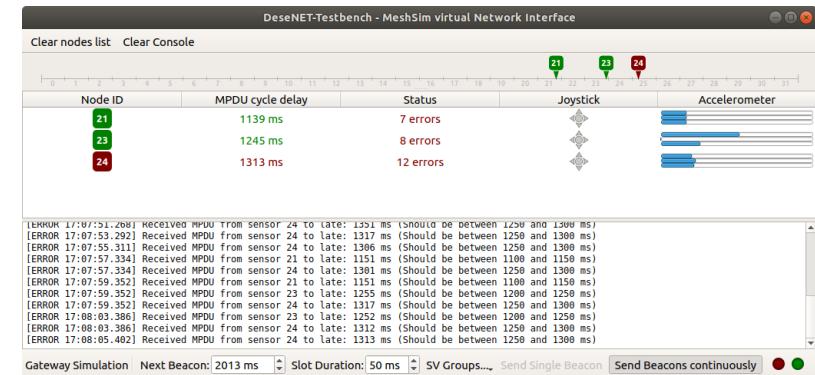


Over the air  
transmission



USB Cable

Gateway



Testbench

# Desenet-Sensor Project / Development Environment

Two Platforms:

- **Qt MeshSim** (Qt Creator)
- **Nucleo STM32L4** (STM32CubeIDE)

Same project for both platforms

