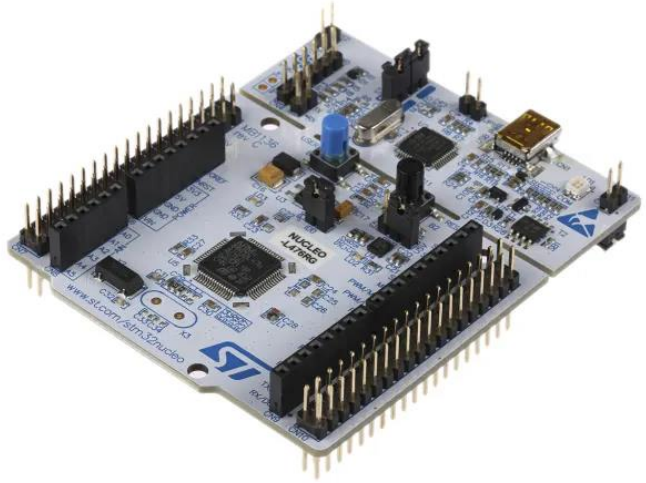

# DeSEnet Demo

v22.01

# Sensor Hardware

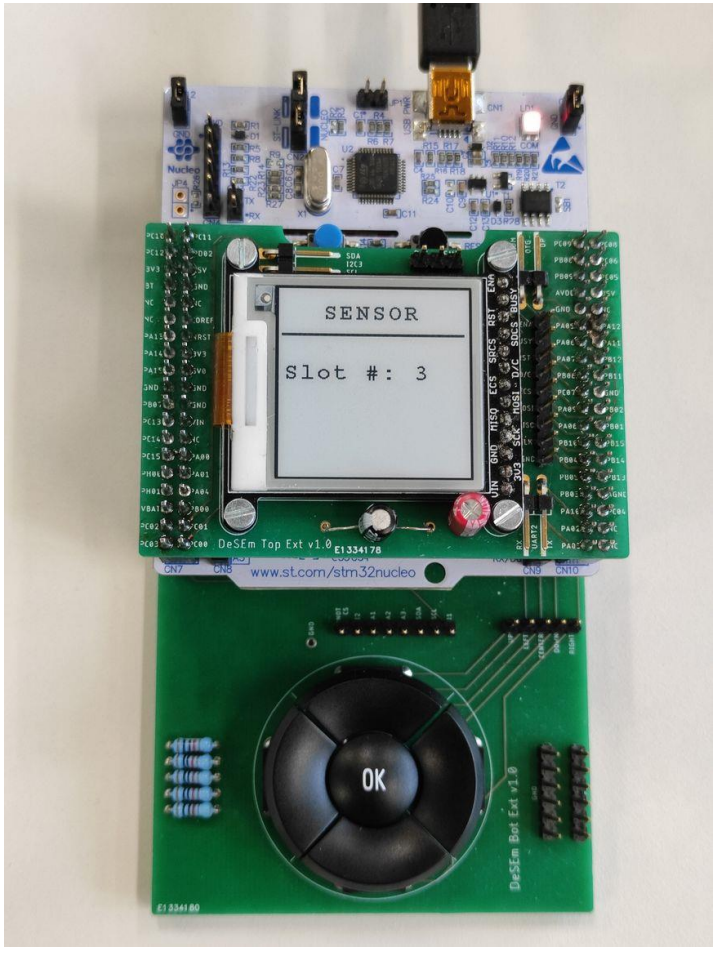
**Nucleo STM32L476RG:**

- 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

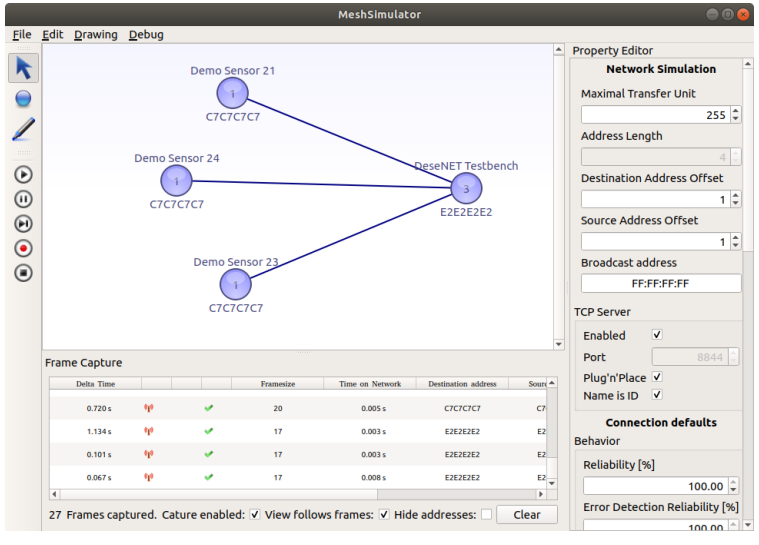
Runs entirely on PC

Sensor #21

TCP / IP

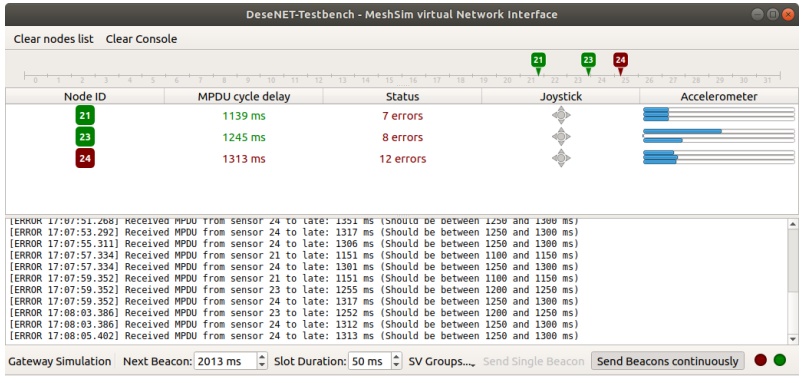
Sensor #23

TCP / IP




Mesh Simulator

TCP / IP




Testbench

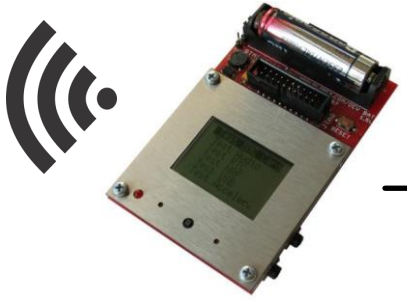
# Practical / Real Topology

Testbench running on teachers PC

Sensor #21

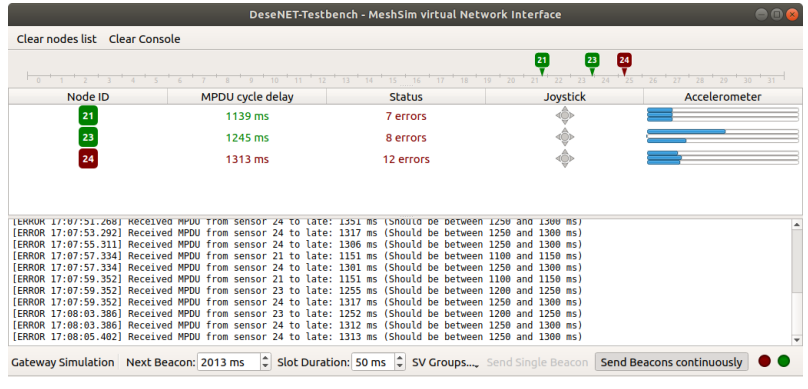
Sensor #23

Over the air transmission



Gateway

USB Cable




Testbench

# Desenet-Sensor Project / Development Environment

Two Platforms:
- **Qt MeshSim** (Qt Creator)
- **Nucleo STM32L4** (STM32CubeIDE)

Same project for both platforms