Contiki Hands On Project

# **Task 1**

## **Setup Description**

1. In this task, we’ve got a wireless sensor network composed of 8-motes.
2. These motes send periodic IPv6/UDP packets to each other using ContikiMAC sleepy router functionality.
3. This task is simulated by first selecting “New Simulation” and creating a “sky-mote”.
4. Then, select the file “Contiki/examples/ipv6/simple-udp-rpl”, and press “Compile”.
5. After compilation, we press “Create” to start creating our motes to form the required network.
6. The number of selected motes should be 8.

## **System Components**

The given system shows 5 parts which are: Network (Showing all 8-motes), Simulation Control (Start, Pause and Reload simulation), Simulation Notes, Mote Output (Showing sent and received messages between nodes) and Timeline for all 8-motes.

A screenshot of a computer

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# **Task 2**

## **Setup Description**

1. In this task, we’ve got a wireless sensor network composed of 6-motes.
2. These motes send periodic IPv6/UDP packets to each other using ContikiMAC sleepy router functionality.
3. This task is simulated by first selecting “New Simulation” and creating a “sky-mote”.
4. Then, select the file “Contiki/examples/ipv6/simple-udp-rpl”, and press “Compile”.
5. After compilation, we press “Create” to start creating our motes to form the required network.
6. The number of selected motes should be 6.

## **System Components**

The given system shows 5 parts which are: Network (Showing all 8-motes), Simulation Control (Start, Pause and Reload simulation), Simulation Notes, Mote Output (Showing sent and received messages between nodes) and Timeline for all 6-motes.

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# **Task 3**

## **Setup Description**

1. In this task, we’ve got a wireless sensor network composed of 6-motes.
2. These motes send periodic messages of the form “abc message received” each other.
3. Here, we modify the source code, to print the new message “abc message received: This is task 3”.
4. Same steps are repeated again to simulate those motes, along with the messages exchanged between them.
5. The following is the modification made to the source code.

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## **System Components**

Same components, with the simulation image showing the new message “abc message received: This is task 3”.

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