Homework 3 - TinyOS

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Overview of the homework:

The assignment consisted in creating

Requirements to met:

* The message is composed by a **counter** and the **sender id**

We created a structure for the purpose:

typedef nx\_struct am\_radio\_count\_msg\_t

{

nx\_uint16\_t counter; *// counter value*

nx\_uint16\_t senderId; *// From whom it has been sent*

} am\_radio\_count\_msg\_t;

* All the messages are sent in BROADCAST

We assumed senders wouldn’t receive their own messages

* Messages are sent at 1 Hz for mote 1, 3 Hz for mote 2, 5 Hz for mote 3

We set 1000, 333 and 200 as period for transmission (in ms) for motes 1, 2 and 3 respectively.

* Messages received with ‘counter mod 10’ == 0 turn off all the LEDs

We checked, each time a message is received, if *counter mod 10* equals 0. If so, all the LEDs are set to 0. Otherwise, LEDs are set as follows

* Messages sent by mote 1, 2, 3 toggle led 0, 1, 2 respectively

We used a switch and ledXToggle function to properly set each LED, when its “corresponding” mote was the sender. Of course, the central LED is always off (second assumption)