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Internet of Things - Home Challenge 2

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Repository:
https://github.com/TheFalco/IoT_HW1_Falconi_Fiozzi/tree/master/HomeChallenge2

The challenge was met by developing a system of 2 motes, communicating with each other via radio messages. In this document are reported the assumptions made on the requests for the delivery.

Assumptions:

- "**Mote #1 sends periodic request (REQ) messages to mote #2**":

  In order to control the requests, Mote #1 sends the request to Mote #2 only if it doesn't receive the ACK of the REQ message.

- "**Only one message type containing [...] value: value from the fake sensor**":

  REQ messages sent by Mote #1 have value = 0 as default value.

Additional observations:

For the sake of completeness, we decided to turn off the radio modules of the two motes right before the end of the simulation.

Mote #1's module is shut down when it receives the response from Mote #2:

```
dbg("radio_rec", "Response received. Value of the sensor = %hhu\n", rcm->value);
call Timer1.startOneShot(1);
```

This functionality has been implemented using a one shot Timer. Once the response is received, Timer1 fires after 1 millisecond. Here, the implementation of its "fired" event:

```
event void Timer1.fired() {
	dbg("role", "Ending operations on mote %d... \n", TOS_NODE_ID);
	call SplitControl.stop();
}
```

Mote #2's module is shut down after receiving the ACK of the RESP message:

```
dbg_clear("radio_ack", "\t\tCounter of the received message: %hhu \n", rcm->msg_counter);
if(rcm->msg_type == RESP){
	call SplitControl.stop();
```

```
}
```