

## Designing a Low Power Consumption Mote in Wireless Sensor Network

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**Abstract :** The market of Wireless Sensor Network WSN has a great potential and development opportunities. Researchers are focusing on optimization in many fields like efficient deployment and routing protocols. In this article, we will concentrate on energy efficiency for WSN because WSN nodes are habitually deployed in severe No Man's Land with batteries are not rechargeable, so reducing energy consumption represents an important challenge to extend the life of the network. We will present the design of new WSN mote based on ultra low power STM32L microcontrollers and the ZIGBEE transceiver CC2520. We will compare it to existent motes and we will conclude that our mote is promising in energy consumption.

**Keywords :** component, WSN mote, power consumption, STM32L, sensors, CC2520

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