Oppgave nr: 34B

Reservert: Nei

Passer best for studieretning: Elektronikk, Instrumentering

Spesielle kommentarer:

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*Nordic Semiconductor's **nRF51822** chip for Bluetooth® low energy communication is a powerful, highly flexible multi-protocol SoC ideally suited for Bluetooth® low energy and proprietary 2.4GHz ultra low-power wireless applications. The **nRF51822** is built around a 32-bit ARM® Cortex™ M0 CPU with 256kB flash + 32kB RAM. The embedded 2.4GHz transceiver supports Bluetooth low energy as well as proprietary 2.4GHz operation, where the proprietary 2.4GHz mode is on air compatible with the nRF24L series products from Nordic Semiconductor.*

The goal is to use our nRF51 Series chips to make a Bluetooth® low energy appcessory that connects either to an iPhone or Android Bluetooth® Low Energy enabled smartphone.

Light dimmer

The goal of this project is to use a *Bluetooth®* Low Energy enabled smartphone (and/or PC) to control the lights in your apartment.

On the device side, you should design and write firmware for an easily installable dimmer unit , e.g between socket and power plug or, if small enough, directly on cable.

On the host side, you should be capable of connecting to several units, controlling lights in several places from the same device.

Optional improvements
Suppress noise from dimmer, decrease size of dimmer unit, make the unit dimmable from analog user input (traditional dimmer switch)

You can also contact us with you own appcessory idea. An appcessory is an app in a mobile device that activates something in the physical world.

Christian Wilhelmsen

R&D Applications