Lab 1 Basic TinyOS Components and Interfaces

Due Date: Jan. 19th, 2017

1. Go to /opt/tinyos-2.1.0/tos/lib/timer to learn all the functions of interface Timer.

2. Go to /opt/tinyos-2.1.0/tos/interfaces/Leds to learn all the functions of interface Leds.

3. Run the original Blink application. Then modify the codes by replacing **toggle** command to **on** and **off** command, respectively. Observe the output of the leds to get deeper understanding of these commands.

4. Run the original Blink application. Then modify the codes by replacing **startPeriodic** command to **startOneShot** command. Observe the output of the leds to get deeper understanding of these commands.

5. Define an internal function called **startTimer** in original Blink application. Start timers in this new defined internal function instead of starting in Boot event.

6. Modify your current Blink application which has an internal function. Let the red led blink periodically by using function **startPeriodic** of interface Timer. At the same time let the green led blink periodically by using function **startOneShot** of interface Timer.

7. Based on step 5, modify your Blink application which has an internal function. Let the green led on after N time units. And let the red led blink periodically after the N time units and repeat every P time units by using function **startPeriodic**. Let the yellow led blink periodically after M time units and repeat every P time units.

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