Lab3 Requirement
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Design a LPC1769 microprocessor system with TSOP1236 to measure human response time. The detailed requirements are:

1. Light up a LED A by GPP port to indicate the experiment is about to start, then use randomized time interval to make the subject being tested has no way to predict the exact start time of the experiment, you may want to use rand() random function generator to randomize the time interval.

2. Once the randomized time interval expires, LPC1769 turns on the 2nd LED, e.g., LED B, as soon as this LED B is on, the timer should start counting.

3. Once the LED B is on, the subject should presses remote controller to send out wireless signal which is detected by TSOP1236. Then TSOP1236 will trigger the external interrupt, LPC1769 in turn detects this interrupt and then stop the timer. The time interval will be printed on the console and stored for further processing.

4. This experiment will continue 3 to 5 times, average time and standard deviation are computed and display on the console.

(End)