

Assignment 1

This assignment was intended to get user comfortable with Contiki and Cooja.

Task 1 was to add a button press to the rime application that did a broadcast message. I modified the code to add the button detection and wait on the button press to send a different message "Button" instead of "Hello". Task1.jpg show this execution with the button press received from nodes 1 and 6.

Task 2 was to change the multicast rime application to send a message that was my name. Task2.jpg shows the execution and the resulting message that has my name.

Task 3 was to use the trickle application with the three different time equations using different powers of 10, 10^{-20} , 10^{-16} , and 10^{-6} .

The trickle algorithm allows nodes in a lossy shared medium to share data by dynamically adjusting the transmission windows to spread new information. With that said I really did not notice much of a difference in the simulations. All the simulations had three to four nodes that were active and I was able to capture the transmission of a radio packet but the time we used between broadcast seemed very short.