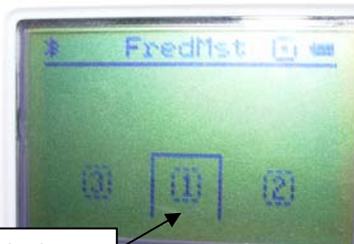


Part 1 - Connecting one master NXT to three slave NXTs



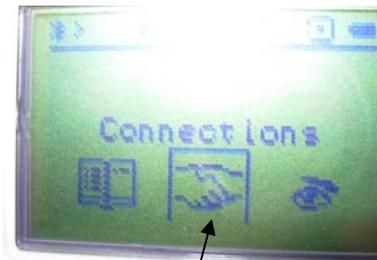
Select your first slave NXT



Assign it to address no. 1



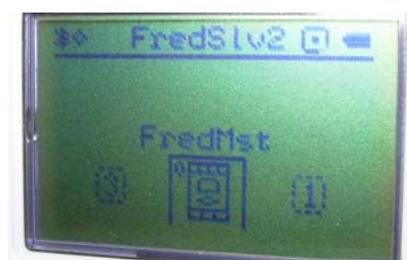
FredMst is now connected to a slave NXT at address no. 1. Addresses 2 and 3 are still empty.



The "Connections" icon inside each NXTs Bluetooth menu.



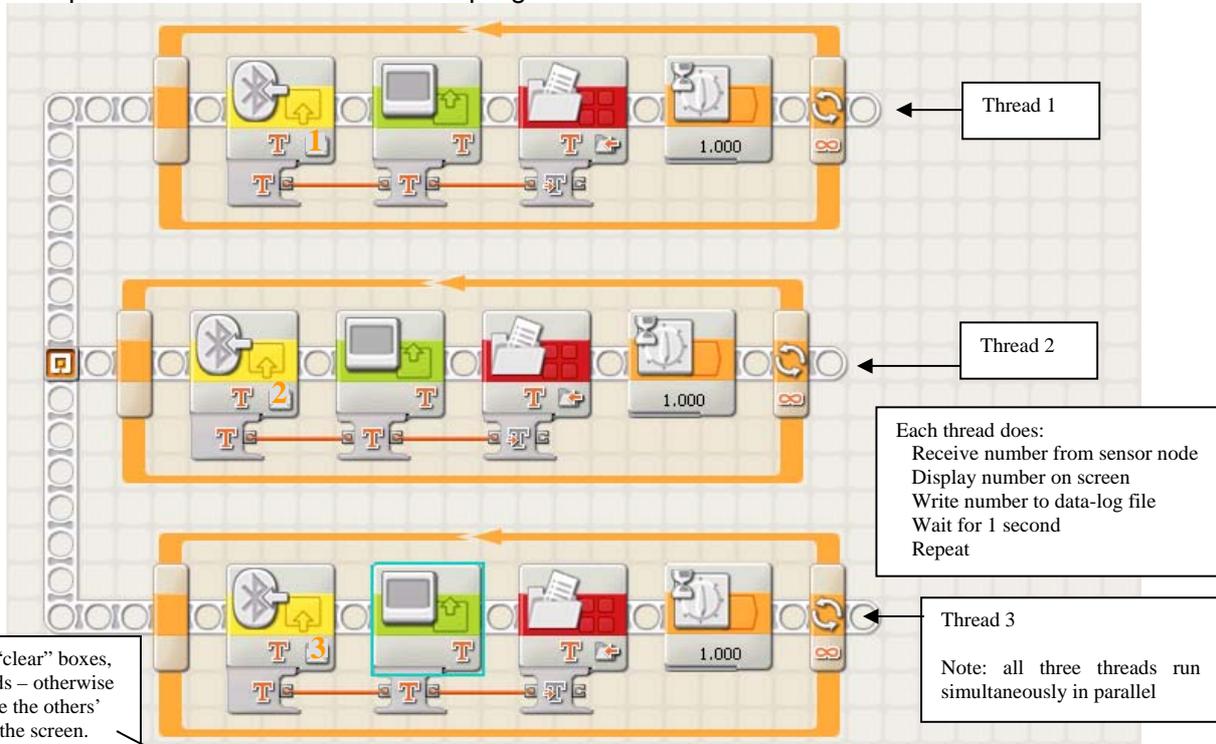
Inside the master's connections list: We see that FredMst is connected to three slaves. We can also see that FredSlv2 is assigned to address no. 2.



Inside FredSlv2's connections list: We see that FredSlv2 is connected to just one NXT. We can also see that this NXT is called FredMst, and is assigned to address no. 0.

Part 2 – creating master and slave programs

One possible multi-threaded master program looks like this:

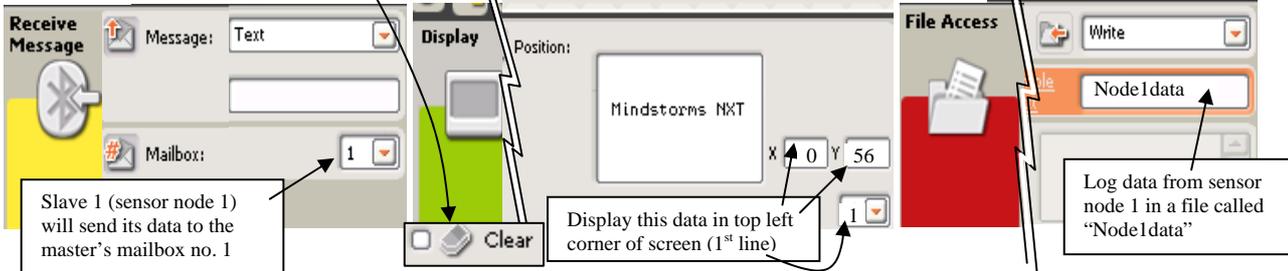


Un-check the "clear" boxes, for ALL threads – otherwise each will delete the others' numbers from the screen.

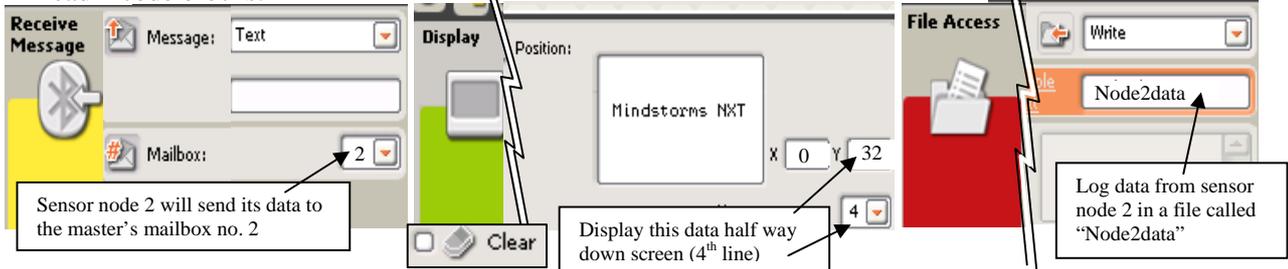
Each thread does:
 Receive number from sensor node
 Display number on screen
 Write number to data-log file
 Wait for 1 second
 Repeat

Thread 3
 Note: all three threads run simultaneously in parallel

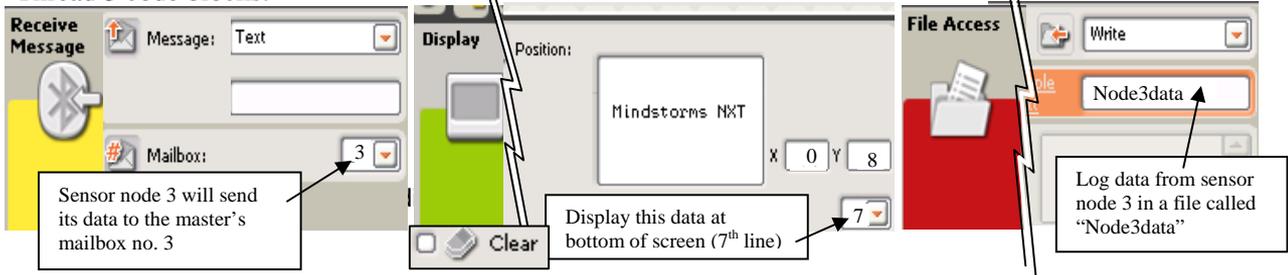
Thread 1 code blocks:



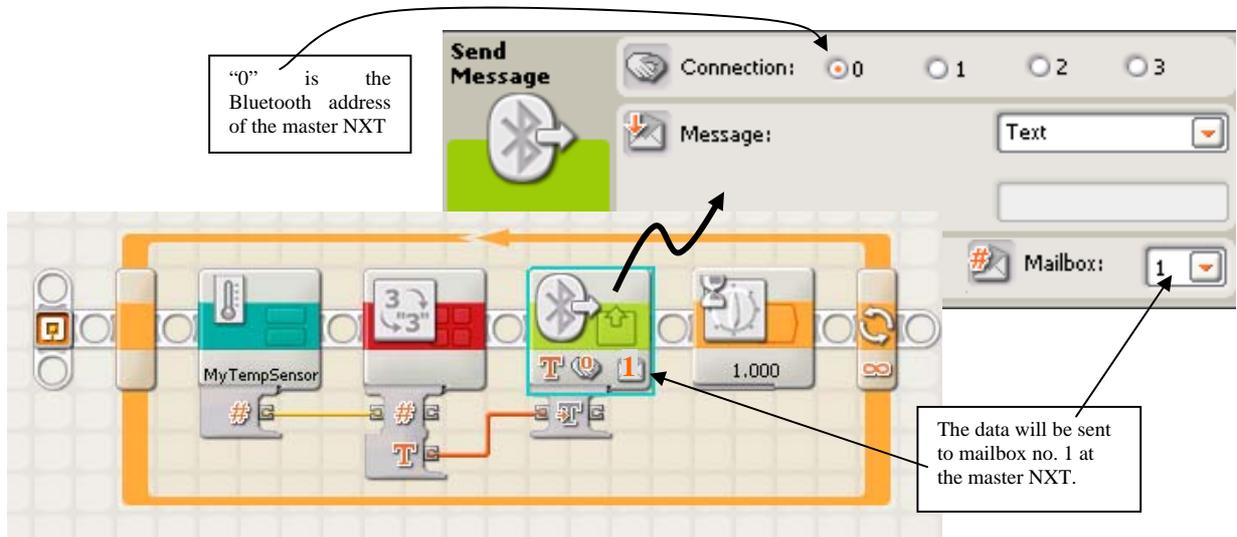
Thread 2 code blocks:



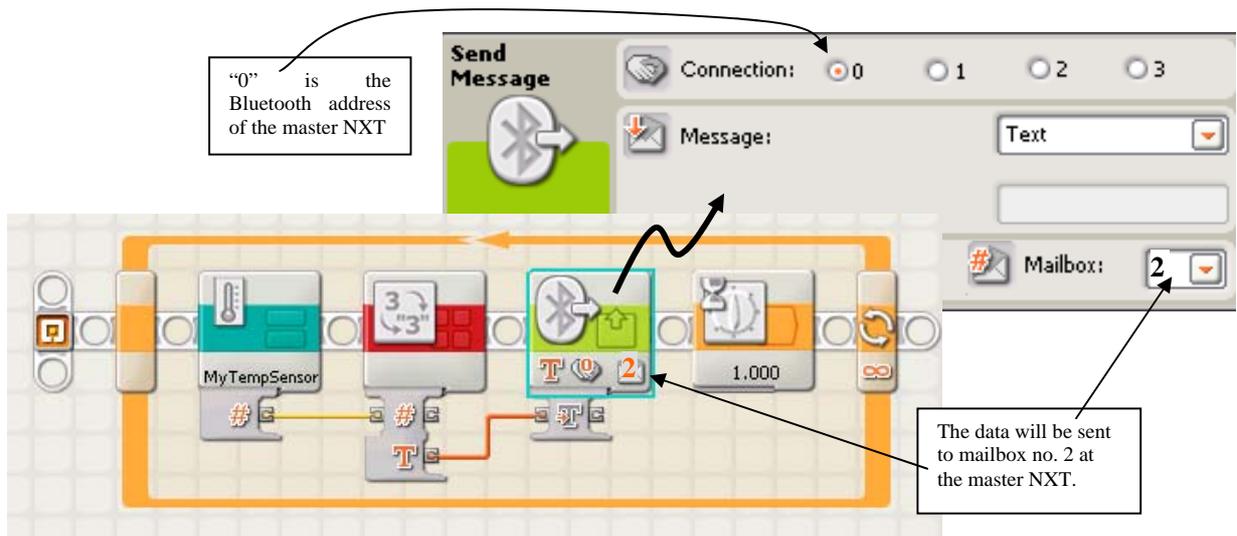
Thread 3 code blocks:



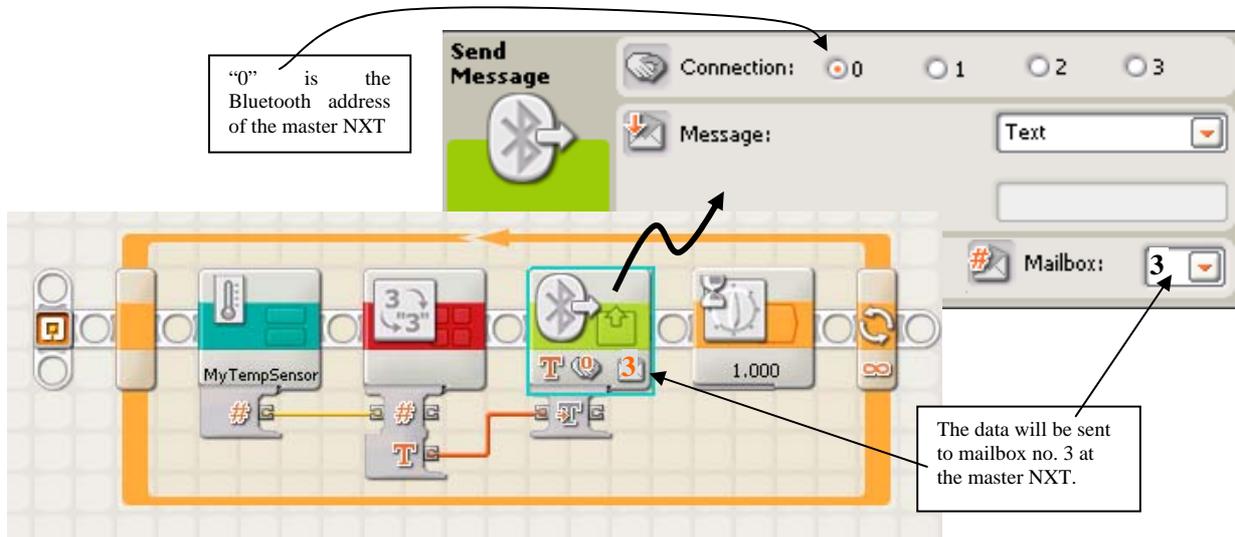
Writing a slave program for each of the sensor nodes:



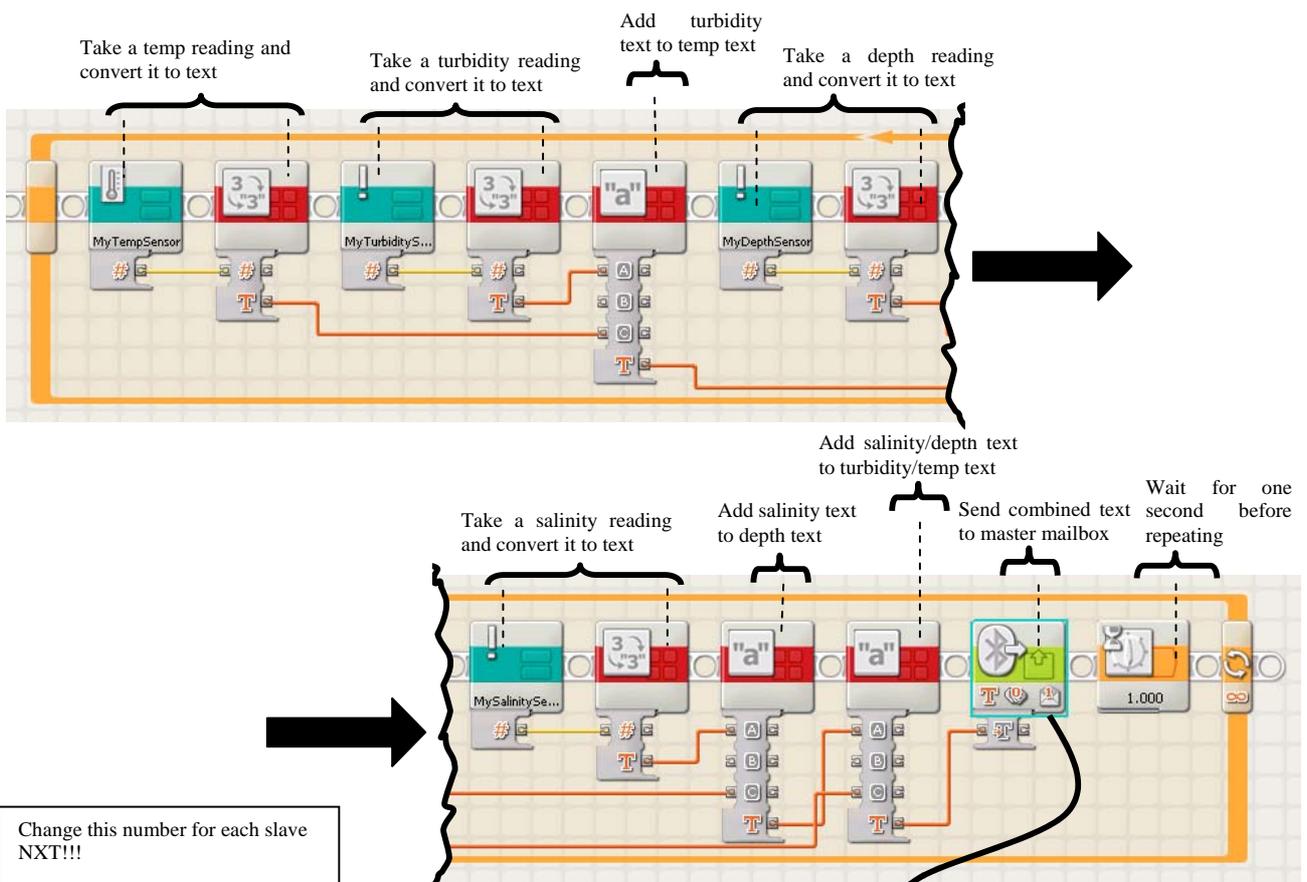
Example program for the second sensor node (to run on the second slave NXT):



Example program for the first sensor node (to run on the first slave NXT):



Part 3 – adding multiple sensors to each sensor node



Change this number for each slave NXT!!!

In the program for slave 1, choose mailbox 1.

In the program for slave 2, choose mailbox 2.

In the program for slave 3, choose mailbox 3.

