MiWi Mesh Demo

Commissioning the Network:
Pan Coordinator:
1)   Pan Coordinator will display C: 0xXXXX on Power Cycle. "XXXX" is the Pan Co's short address.
Coordinator:
2)   Coordinator will display A: 0xXXXX   P: 0xYYYY on Power Cycle. "XXXX" is the Co's short address. "YYYY" is its Parents short address.

Communicate:
Data Transmit:
1)   Co on pressing SW1 button will transmit a packet to Pan Co. (To verify the transmission there is a counter value that increments both on Co and Pan Co).
2)   Pan Co on pressing SW1 will transmit a packet back to the Co which "last" communicated with the Pan Co.
3)   The route of packet both ways from Pan Co to a Co, or Co to Pan Co is denoted by red LED's toggling.

Date Receive:
1)   When the packet reaches its end destination, packet reception will be denoted by a Green LED toggle.

Testing Dynamic Routing:
1)   When a packet is being sent from Co to Pan Co , and there are multiple hops in between these nodes. Power off the "Parent" of Co and you will see Co will choose another path to TX a packet (the parent of the Co will change; check the parent address when performing this operation). Sometimes you will see a "No Network" message getting displayed on the LCD screen; this also denotes that the CO is searching for an alternative path.
2)   When a packet if being sent from Pan Co to Co, and there are multiple hops in between these nodes. Power off any of the hops in the middle and you will see that the path is broken, In this situation the Pan Co will take 2 mins to reestablish its route between Pan Co to Co and you will see the Packet transmission working fine again.

Testing Sleeping End Devices:
1)   Pressing SW1 on sleeping RFD devices will send a data packet from RFD sleeping device to Pan Cr.
2)   Pressing SW1 on Pan Cr will send a data packet from PAN Co to RFD Sleeping device.
     Note: When sending data packet from pan co to end device you will not see the data packet received at the RFD sleeping device immediately , because the RFD sleeping device is sleeping. In order to wake up and request for the data , press SW2 on RFD an you will see RFD receiving the message from PAN Co.