Lab 3 Mote-mote Communication

Due on Feb. 9th

This lab is to implement mote-mote communication through radio. Two iris motes are needed. The application is to use one iris mote to define a counter and send the counter value and its node ID every half second to the other mote. The mote which receives data should display the lowest 3 bits of the counter value using leds. The mote sending counter value should have the node ID 1, and the mote receiving counter value should have the node ID 2. You are required to separate the sender and receiver codes in different files. When sender is sending, use the red led to indicate its status.

1. Read the following interfaces files to know all the functions of each interface.

Packet
Send
Receive
AMPacket
AMSend
SplitControl

2. Develop a header file. Define a message structure, which is used to hold the node ID and counter value.

3. Start developing the configuration file and module file with the components and interfaces that can toggle leds.

4. Identify the interfaces and components that provide access to the radio communication and allow us to manipulate the ***message_t*** type.

5. Update the module file with interfaces for sending and receiving data.

6. Declare any new variables and add any needed initialization code.

7. Assign values to message structure elements. Copy the values to message buffer (***message_t***)

8. Send data and release message buffer.

9. Receive message and verify the message structure, and then extract data from payload.

10. Signal application with the extracted data and release message buffer.