Message protocol:

Message Types

COMPUTER\_INITIATE\_CONNECTION, BAND\_CONNECTING, COMPUTER\_PING, BAND\_PING, BAND\_POSITION\_UPDATE, POSITION\_ERROR, START\_RECORDING, STOP\_RECORDING, START\_HAPTICS, STOP\_HAPTICS, VOICE\_CONTROL

Should be assigned numbers starting at 0. (i.e. COMPUTER\_INITIATE\_CONNECTION is 0, BAND\_CONNECTING is 1, COMPUTER\_PING is 2, etc)

^^ Can change to assign each thing in enum to have set number

1 byte 1 byte (MessageLen – 2) bytes long 1 byte

|  |  |  |  |
| --- | --- | --- | --- |
| Message len (2+length of data) | Message type (see above) | DATA | ‘\n’ |

Total message length:

(MessageLen + 1) bytes

Computer sends COMPUTER\_INITIATE\_CONNECTION, no data

* Band should send back BAND\_CONNECTING, no data

Computer sends COMPUTER\_PING, no data

* Band should send back BAND\_PING, no data

Computer sends START\_RECORDING, no data

* Band should start sequence of sending band positions (BAND\_POSITION\_UPDATE, variable data length)
* (this turns on band positions ‘hose’)

Computer sends STOP\_RECORDING

* Band should send nothing and stop sending band positions
* (this turns off band positions ‘hose’)
* Should prepare to reply to pings again

Computer sends START\_HAPTICS

* Band should send band positions (BAND\_POSITION\_UPDATE) and prepare for receiving errors (type: POSITION\_ERROR)

Computer sends STOP\_HAPTICS

* Band return to ping mode (stop sending positions and doing stuff with error messages)

Band sends VOICE\_CONTROL

* Computer processes and starts/stops current mode depending on state
* Need to figure out encoding for data embedded in msg