

# Progress Report 4

Stuart, Walt, Dan

## Next Goals and Deliverables

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## Previous Goals and Deliverables

- Debug program for receiving manchester encoding data (DONE) - Stuart/Walt
- Develop standard packet expectations - group (DONE for now – will revisit with network layer with error correcting)
- Create character encoding/decoding to allow text transfer - (WIP) - Dan
  - Dan has made progress on this, but we needed to fix the physical link before doing this.
- develop functionality for repairing broken packets using error detection and bit replacement. (ON HOLD/DONE FOR NOW) - Dan

Dan read a lot about this, and we have a good sense of where to start on error-detection. However, we decided to move on to transmitting English messages before we implement this.

## Discussion

- We spent much of our class time trying to debug our read rate, only to realize there was nothing wrong with it. We realized that our bits were inverted due to the input/output nature of the NIC device, and some of our errors were being caused by an existing NIC state.
- We have a working program(s) for receiving manchester encoded data. We can send data at rates up to 3,000 bits per second. This is a good start, and we are happy that we have reached the upper bound of what the class believes is possible for these devices. However, we will have to add error checking to our packets. Once we start to focus on the network layer, we will also need to come up with a handshake for the devices to connect, and will need to add automatic timing resets to the listening function so the clocks don't get out of sync.
- We use the
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