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Cpre 288 – Post-lab 4

2/20/20

Post-lab 4

1. **Prelab Planning Boards**
2. The three priority questions I formulated during my lab planning work were:
3. *Will Putty be difficult to use?*
4. *How will we interact with the UART?*
5. *Will bit masking be needed?*
6. During my planning I realized that both me and my partner would need to take some time to understand the UART as well as writing and sending data to and from Putty.
7. **Lab Notes**
8. For my three priority questions I found:
9. I found that Putty wasn’t very difficult to use, but that it was very barebones.
10. We didn’t really dive too deep into the UART since most of the functions were pre-coded for us.
11. I found that we had to utilize bit-masking to initialize the UART.
12. A close up of text on a white background

    Description automatically generated
13. For the first debug demo we demonstrated that we could send and receive messages between the Cybot and the PC using Putty as the go-between. The second demo was essentially the same as the first only in this case we were tasked with initializing the UART ourselves. Finally, we demonstrated that we could use the IR and SONAR sensors on the Cybot to scan it’s surroundings and then send the formatted scan data to Putty.
14. **Lab Retrospective**
15. In this lab we set out to send data between the PC and the Cybot serially, initialize the UART for our own purposes, and finally use the peripheral sensors to send scan the Cybot’s surroundings, format this data, and then display it in Putty.
16. We finished part 1 and part 2 of the lab relatively quickly, however it took us an extended period of time to code and debug the final part of the lab.
17. Our struggles came about primarily because we struggled to format the sensor data properly before sending it across to Putty.
18. Next time we need to brush up on the sprintf statement.