

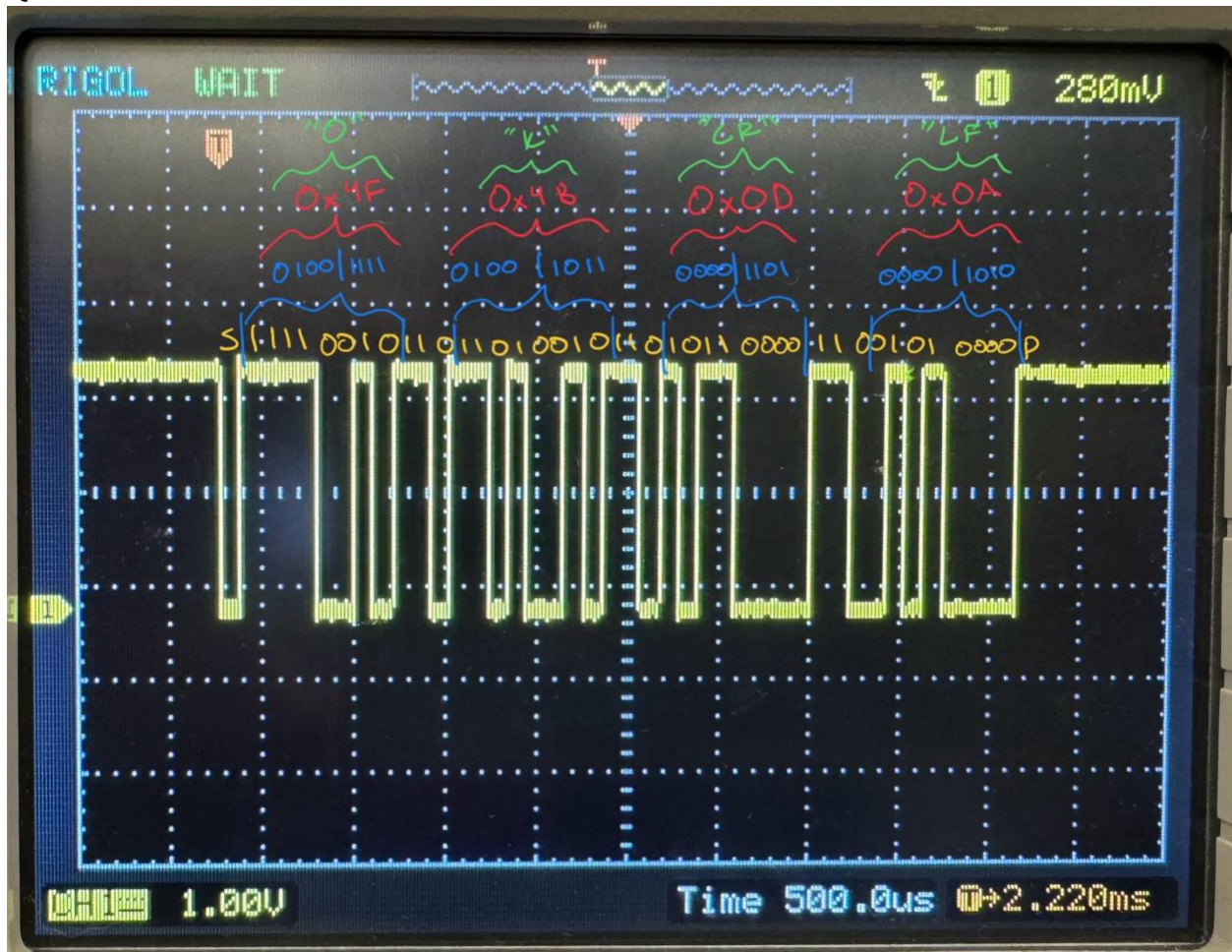
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ECE1188 – Cybersphys
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Due: 3/28/24

Lab 4: BLE Communication

Q1.e

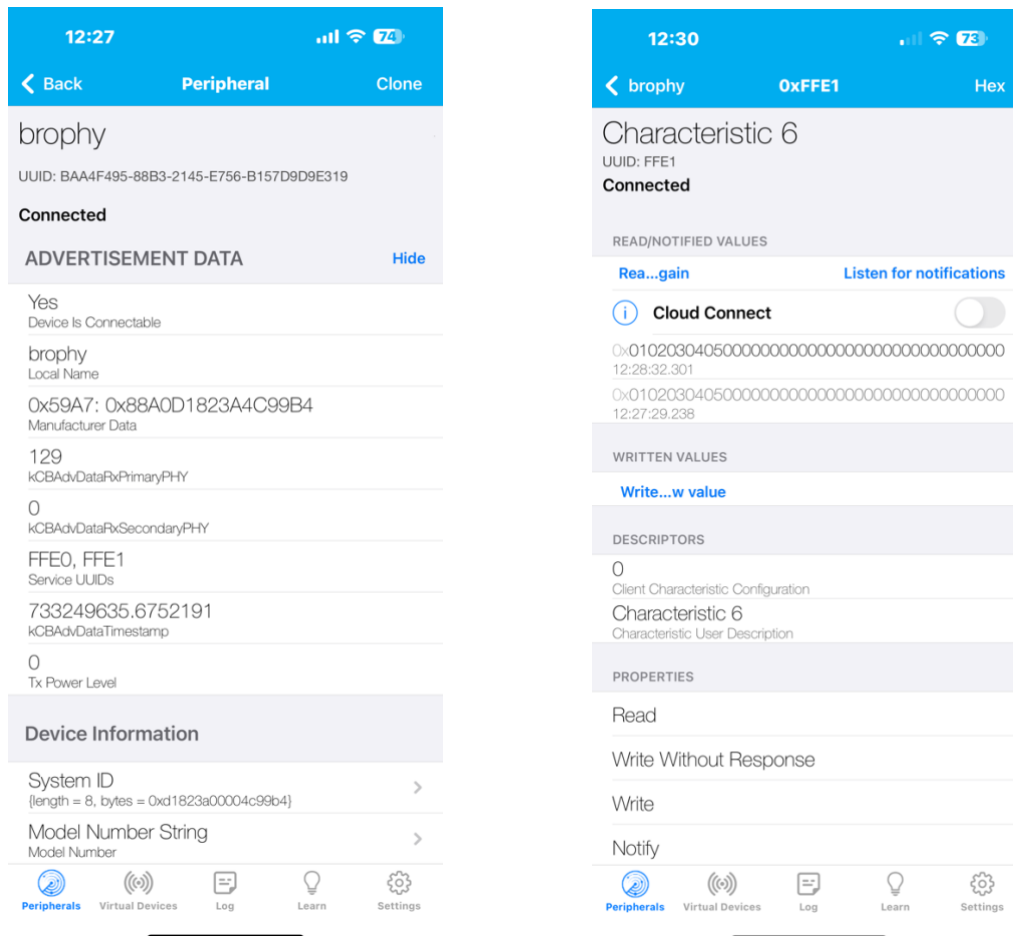
When the command “AT” is given, the user is fed a response “OK”

Q1.f



In the terminal, we are typing “O,” “K,” and enter. This translates to the carriage return and line feed ASCII characters being transmitted as well. I’m also not sure why an extra start bit is transmitted as well. I tried transmitting my initials via BLE and had the same result of an extra start bit between ASCII characters. Binary 0110 is also the ASCII character for acknowledge but don’t think this is the case due to having only 3 bits.

Q2



Q3

1. The module provides 1 service with a UUID of FFE0
2. The service has a singular characteristic named “Characteristic 6” with a UUID = FFE1. Characteristic 6 can read, write without response, write, and notify.

Q4

Me writing my name in hex using the ASCII format table to be sent via BLE (translated to text to display in serial terminal). Can spam commands by reusing them in the queue.

WRITTEN VALUES

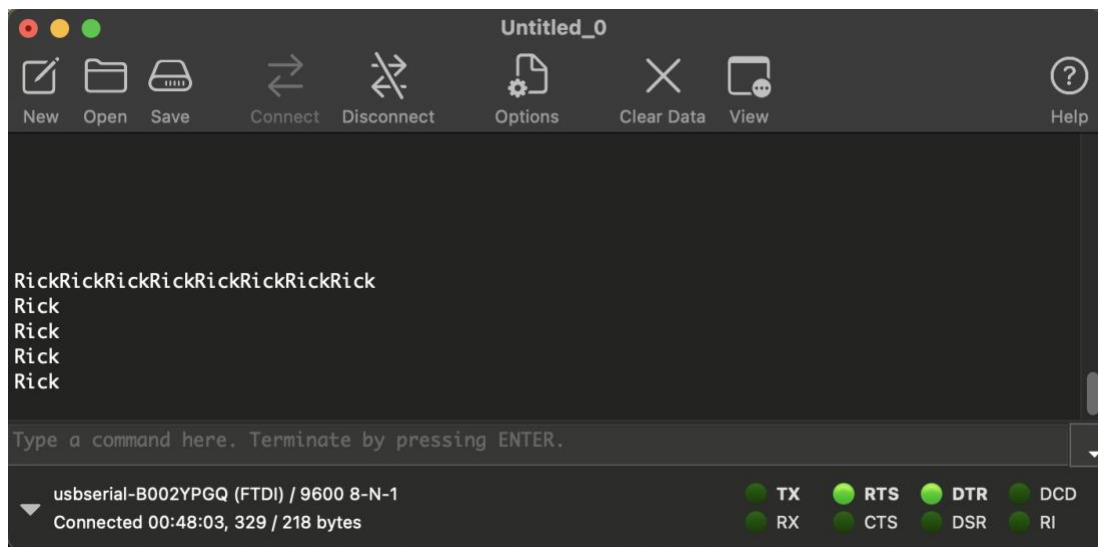
Write...w value

0x5269636B → "Rick"
12:36:59.076

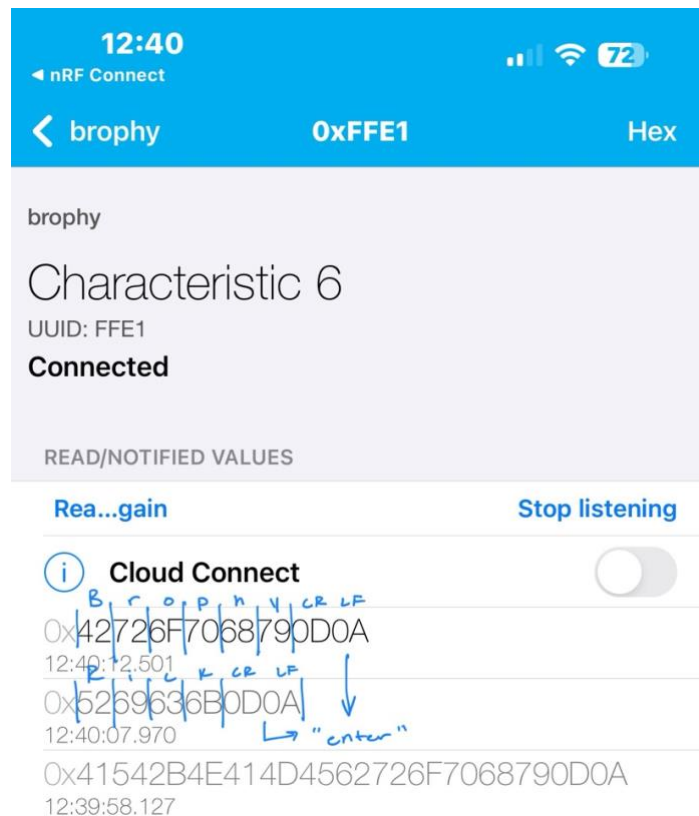
0x8210599107
12:36:01.783

0x0A → Line feed
12:36:59.542

0x80
12:35:28.440



Q5



Q6

https://youtu.be/WsXS8MlypUE?si=kqZu_ml9sp3QkUNC