

LAB7: UART

PART 1

Telemetry

version 1.4
chrome app

Help

DTR

RTS

Options

/dev/ttyUSB0

Connect

Serial Output

115200 baud

Clear Console

Hyperload Flash

Select firmware.bin

Browse

Write Serial Data Here ...

Upload File

☐ CR

☒ NL

Send

```
-----
peripherals_init(): Low level startup
WARNING: SD card could not be mounted

I2C slave detected at address: 0x38
I2C slave detected at address: 0x64
I2C slave detected at address: 0x72

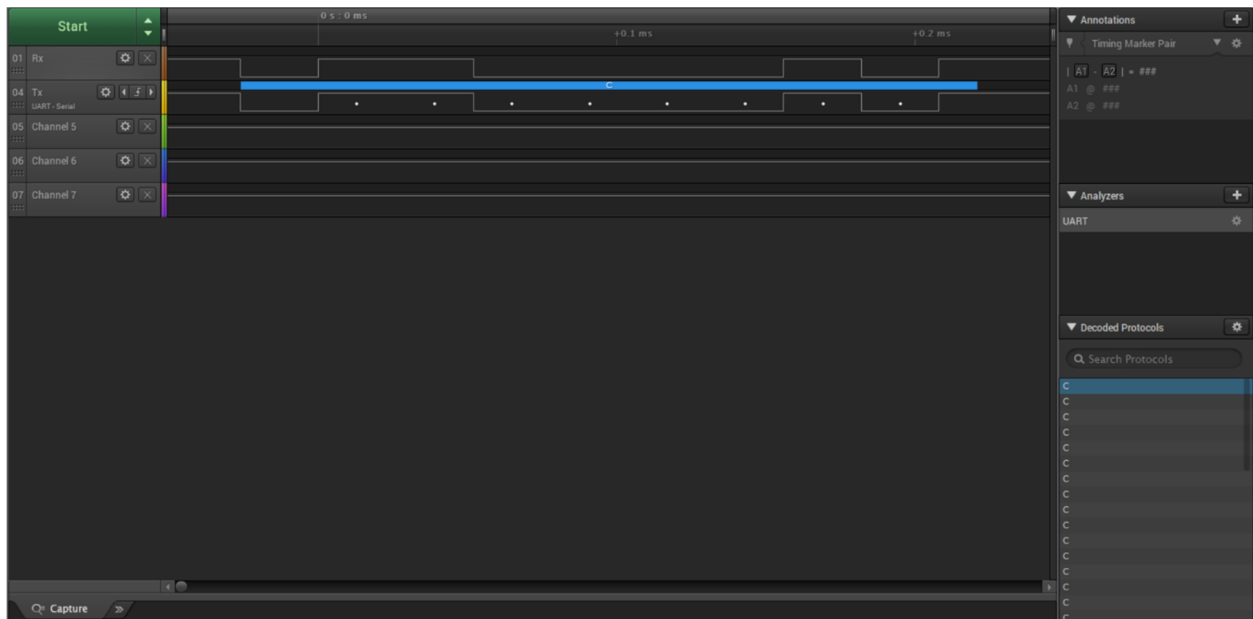
entry_point(): Entering main()
Baud Rate = 38400Hz
Starting RTOS

Byte to write into UART = C
Byte read from UART = C

Byte to write into UART = C
Byte read from UART = C

Byte to write into UART = C
Byte read from UART = C

Byte to write into UART = C
Byte read from UART = C
```

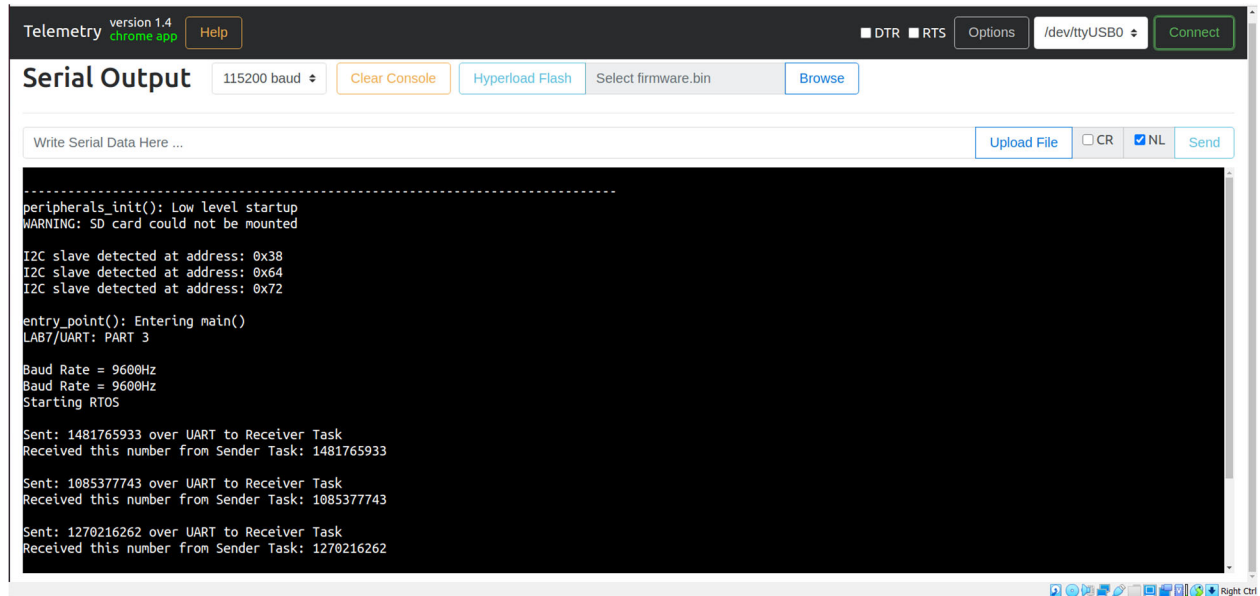


PART 2

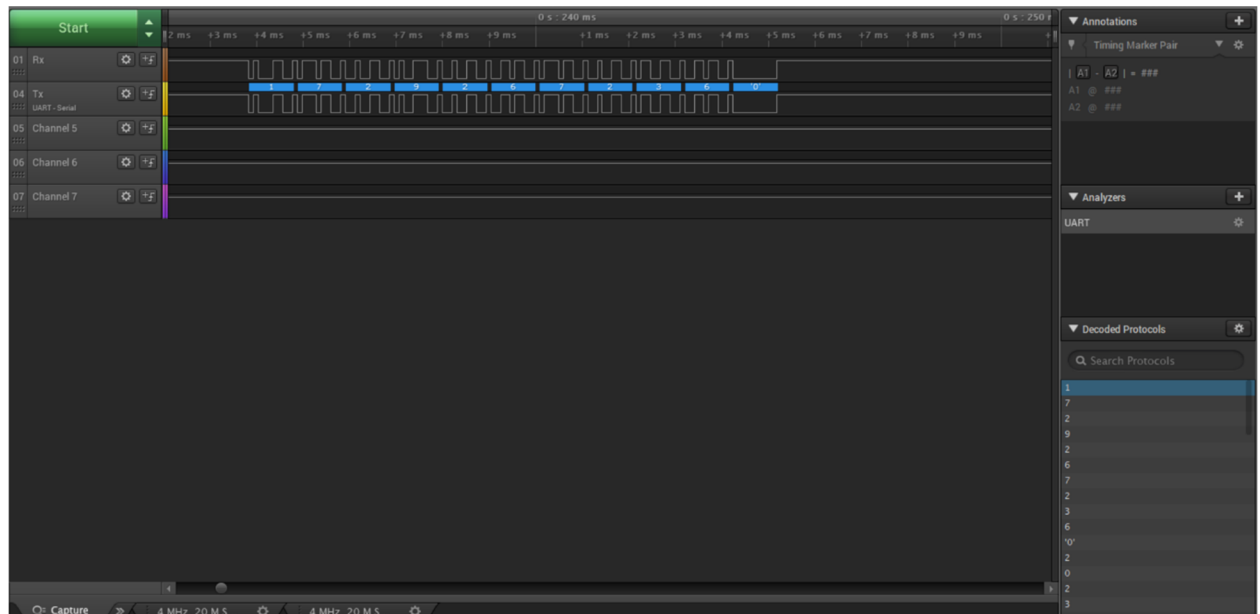
[illegible]

Part 3: Extra Credit

Following is the screenshot from telemetry.



Screenshot from Logic Analyzer for a random input



The following table is the output from decoded Protocols section in logic analyzer.

Time [s]	Analyzer Name	Decoded Protocol Result
0.2338315	UART	1
0.234872	UART	7
0.2359125	UART	2
0.236953	UART	9
0.2379935	UART	2
0.239034	UART	6
0.2400745	UART	7
0.24111475	UART	2
0.24215525	UART	3
0.24319575	UART	6
0.24423625	UART	'0'
0.742803	UART	2
0.7438435	UART	0
0.74488425	UART	2
0.74592475	UART	3
0.74696525	UART	3
0.74800575	UART	5
0.7490465	UART	1
0.750087	UART	8
0.7511275	UART	7
0.752168	UART	6
0.7532085	UART	'0'
1.2517735	UART	1
1.252814	UART	4
1.2538545	UART	2
1.254895	UART	7
1.2559355	UART	5
1.256976	UART	0
1.2580165	UART	4
1.259057	UART	3
1.2600975	UART	1
1.261138	UART	'0'
1.7596975	UART	1
1.760738	UART	8
1.7617785	UART	4
1.762819	UART	0
1.7638595	UART	5
1.7649	UART	7
1.76594025	UART	9

1.76698075	UART	9
1.768021	UART	2
1.7690615	UART	9
1.770102	UART	'0'
2.268657	UART	2
2.2696975	UART	0
2.270738	UART	9
2.27177825	UART	8
2.27281875	UART	5
2.27385925	UART	6
2.2748995	UART	0
2.27594	UART	3
2.2769805	UART	9
2.278021	UART	7
2.2790615	UART	'0'
2.7776295	UART	1
2.77867	UART	9
2.77971075	UART	1
2.78075125	UART	0
2.78179175	UART	5
2.7828325	UART	0
2.783873	UART	0
2.7849135	UART	6
2.785954	UART	7
2.7869945	UART	5
2.788035	UART	'0'
3.286599	UART	1
3.2876395	UART	1
3.28868	UART	7
3.2897205	UART	0
3.290761	UART	9
3.2918015	UART	7
3.292842	UART	0
3.2938825	UART	4
3.29492275	UART	9
3.29596325	UART	1
3.29700375	UART	'0'
3.7955835	UART	1
3.796624	UART	8
3.7976645	UART	5
3.798705	UART	6
3.7997455	UART	2
3.80078625	UART	2

3.80182675	UART	4
3.802867	UART	1
3.8039075	UART	9
3.804948	UART	0
3.80598875	UART	'0'
4.304545	UART	9
4.30558525	UART	8
4.30662575	UART	3
4.307666	UART	0
4.3087065	UART	5
4.30974675	UART	9
4.31078725	UART	3
4.31182775	UART	4
4.31286825	UART	4
4.31390875	UART	'0'
4.8126005	UART	1
4.813641	UART	7
4.8146815	UART	1
4.815722	UART	8
4.81676275	UART	4
4.81780325	UART	5
4.81884375	UART	8
4.81988425	UART	1
4.82092475	UART	3
4.82196525	UART	4
4.823006	UART	'0'