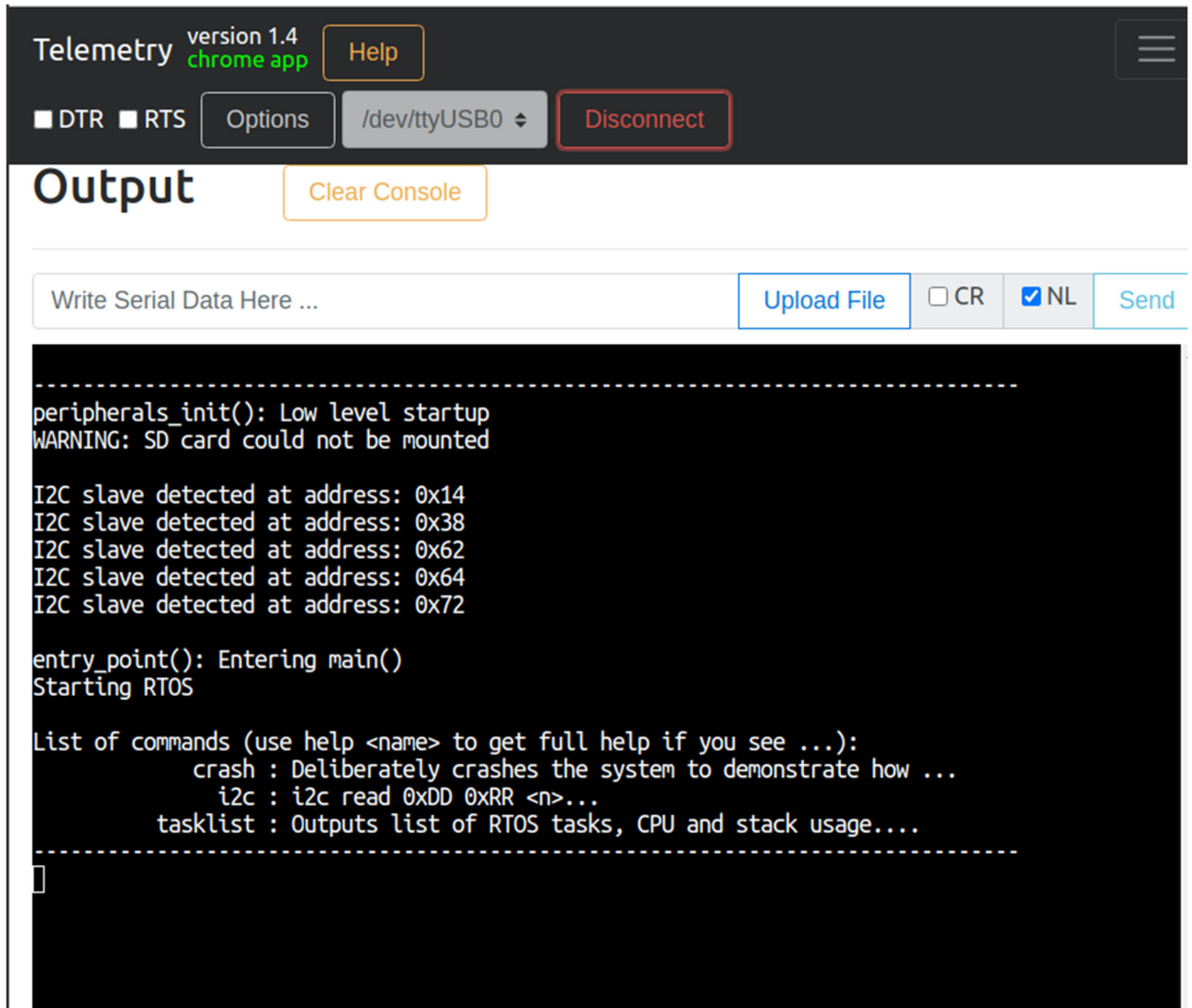


LAB 10: I2C

1) Slave Address Detection

Slave is detected at address 0x14. The rest of the addresses are for different sensors that are detected on both the boards.



The screenshot shows the Telemetry Chrome App interface. At the top, it says "Telemetry version 1.4 chrome app" with a "Help" button. Below this are checkboxes for "DTR" and "RTS", an "Options" button, a dropdown menu showing "/dev/ttyUSB0", and a "Disconnect" button. The main section is titled "Output" with a "Clear Console" button. Below the title is a text input field "Write Serial Data Here ..." and buttons for "Upload File", "CR" (checkbox), "NL" (checkbox, checked), and "Send". The output area is a black terminal window with white text. The text shows the following sequence of events: a dashed line, "peripherals_init(): Low level startup", "WARNING: SD card could not be mounted", five lines of "I2C slave detected at address: 0x14", "0x38", "0x62", "0x64", and "0x72", "entry_point(): Entering main()", "Starting RTOS", a list of commands with descriptions: "crash : Deliberately crashes the system to demonstrate how ...", "i2c : i2c read 0xDD 0xRR <n>...", and "tasklist : Outputs list of RTOS tasks, CPU and stack usage....", followed by another dashed line and a cursor.

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

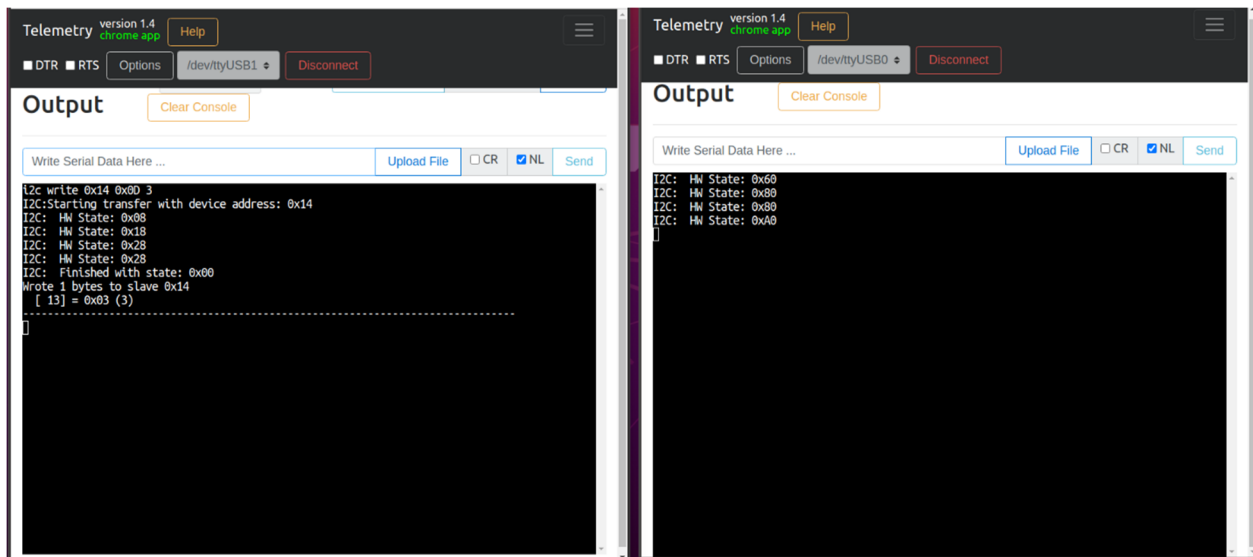
I2C slave detected at address: 0x14
I2C slave detected at address: 0x38
I2C slave detected at address: 0x62
I2C slave detected at address: 0x64
I2C slave detected at address: 0x72

entry_point(): Entering main()
Starting RTOS

List of commands (use help <name> to get full help if you see ...):
    crash : Deliberately crashes the system to demonstrate how ...
    i2c : i2c read 0xDD 0xRR <n>...
    tasklist : Outputs list of RTOS tasks, CPU and stack usage....
-----
█
```

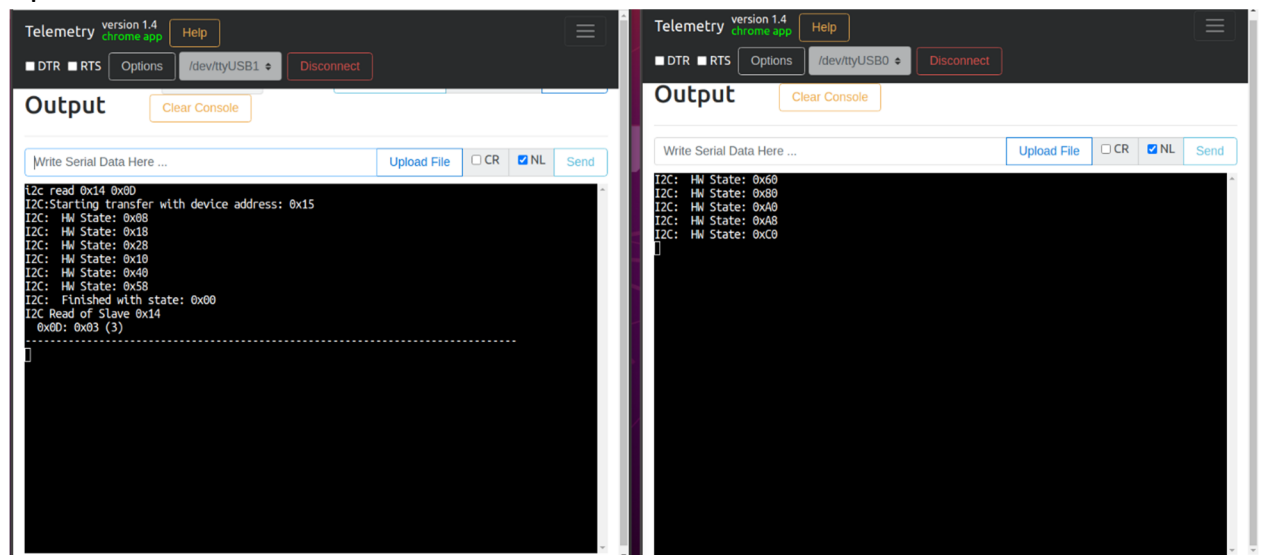
2) Single Byte Write

Figure shows the different states of Master and Slave when a single byte is written at the address. USB1 corresponds to the Master and USB0 is the slave board.



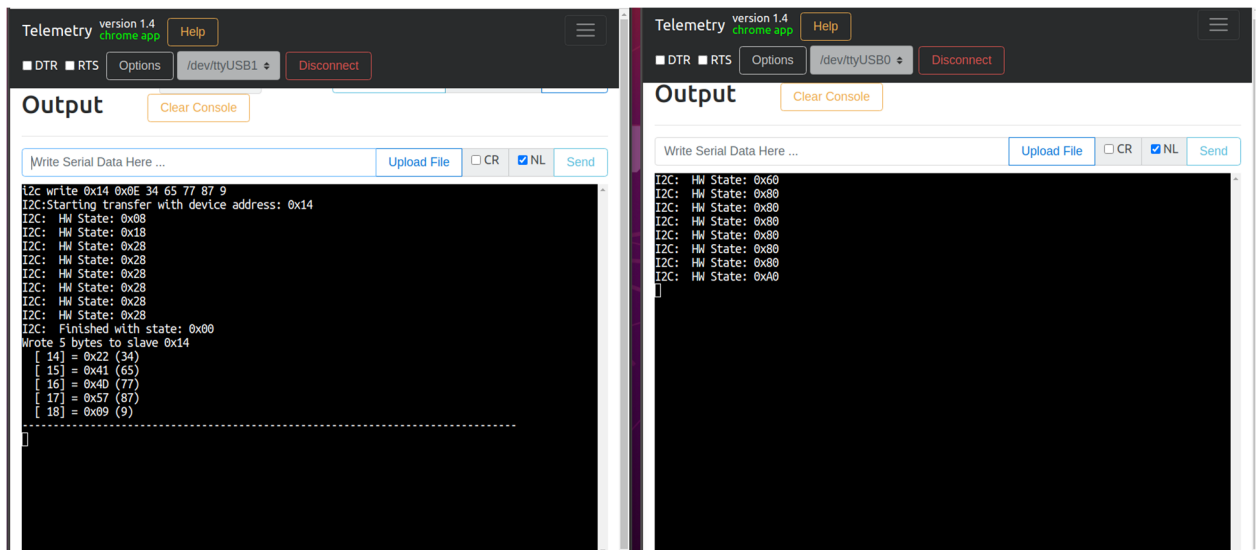
3) Single Byte Read

Figure shows the data byte that was read after performing above read operation.



4) Multi-Byte Write

Figure shows the different states of Master and Slave when multiple bytes are written at the address. USB1 corresponds to the Master and USB0 is the slave board.



5) Multi-Byte Read

Figure shows the data byte that were read after performing above read operation.

