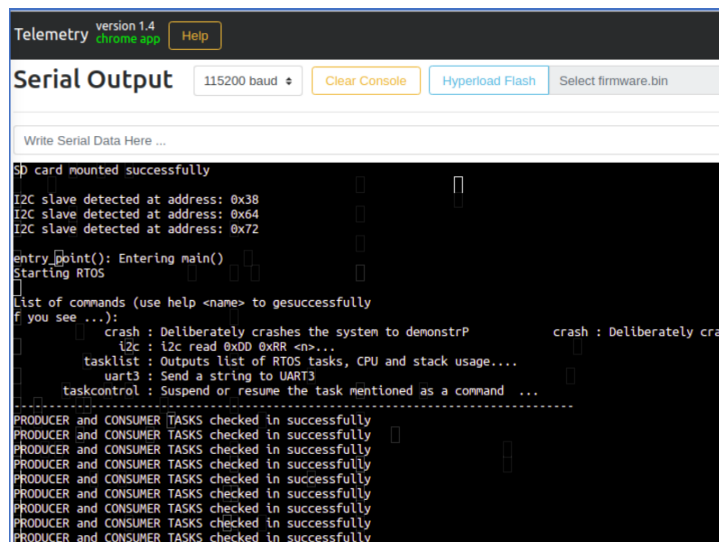


Assignment : Watchdog – App [Group Assignment]  
Submitted by : Tejas Pidkalwar, Nimit Patel, Tirth Pandya [Proj Group 3]  
Date : 10/27/2020

- **Scenarios for task operations**

1) Normal Operation

-Both the tasks are running

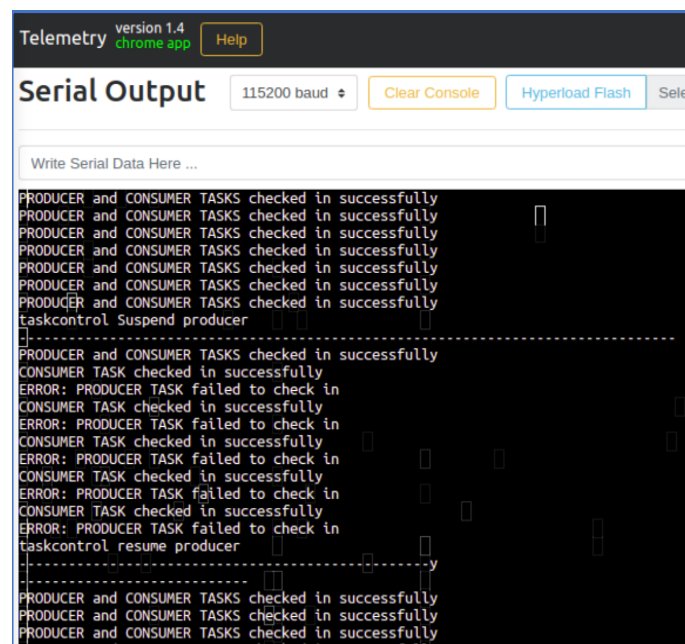


The screenshot shows the Telemetry application interface with the Serial Output window open. The baud rate is set to 115200. The output text shows the following sequence of events: SD card mounted successfully, I2C slave detected at addresses 0x38, 0x64, and 0x72, entry\_point(): Entering main(), Starting RTOS, List of commands (use help <name> to get successfully if you see ...): crash: Deliberately crashes the system to demonstrate, i2c: i2c read 0xDD 0xRR <n>..., tasklist: Outputs list of RTOS tasks, CPU and stack usage..., uart3: Send a string to UART3, taskcontrol: Suspend or resume the task mentioned as a command, followed by a series of 'PRODUCER and CONSUMER TASKS checked in successfully' messages.

2) Producer Suspended, Consumer Running

-The consumer task is running

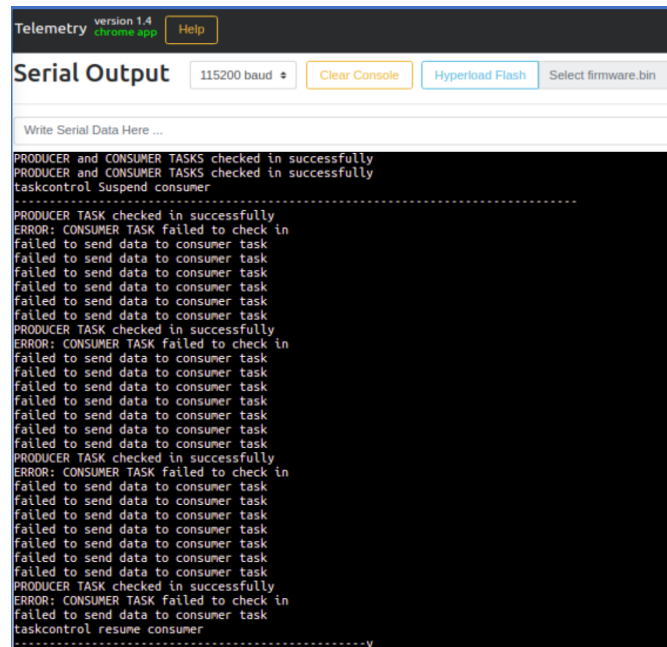
-The producer task has been suspended and resumed later



The screenshot shows the Telemetry application interface with the Serial Output window open. The baud rate is set to 115200. The output text shows the following sequence of events: 'PRODUCER and CONSUMER TASKS checked in successfully' messages, 'taskcontrol Suspend producer', a series of 'PRODUCER and CONSUMER TASKS checked in successfully' messages, 'CONSUMER TASK checked in successfully', 'ERROR: PRODUCER TASK failed to check in', 'CONSUMER TASK checked in successfully', 'ERROR: PRODUCER TASK failed to check in', 'CONSUMER TASK checked in successfully', 'ERROR: PRODUCER TASK failed to check in', 'CONSUMER TASK checked in successfully', 'ERROR: PRODUCER TASK failed to check in', 'taskcontrol resume producer', followed by a series of 'PRODUCER and CONSUMER TASKS checked in successfully' messages.

### 3) Consumer Suspended, Producer Running

- The producer task is running
- The consumer task has been suspended and resumed later

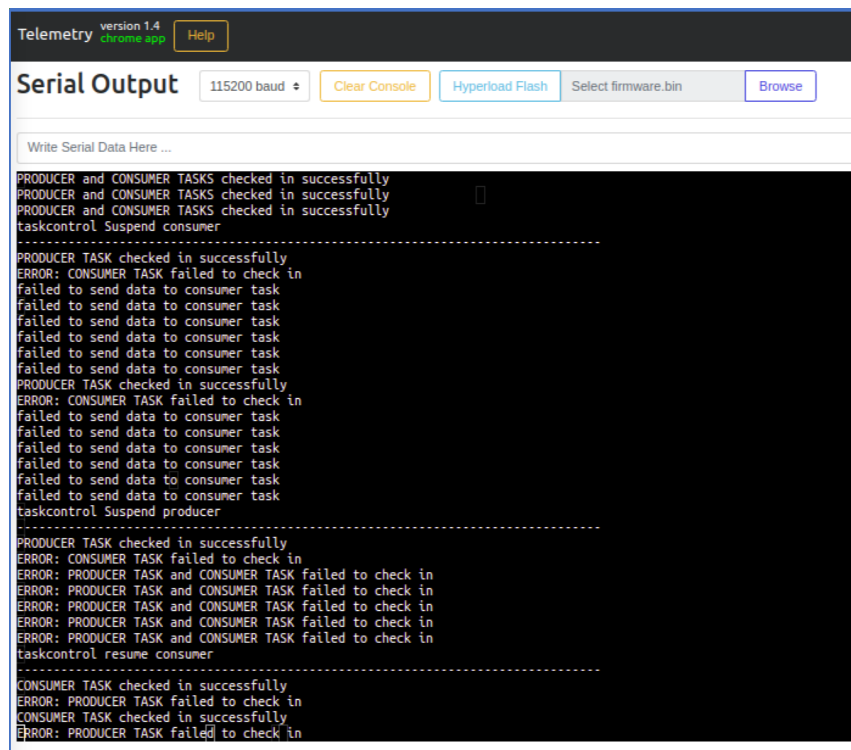


The screenshot shows the Telemetry application interface with the Serial Output window open. The baud rate is set to 115200. The console displays the following log messages:

```
PRODUCER and CONSUMER TASKS checked in successfully
PRODUCER and CONSUMER TASKS checked in successfully
taskcontrol Suspend consumer
-----
PRODUCER TASK checked in successfully
ERROR: CONSUMER TASK failed to check in
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
PRODUCER TASK checked in successfully
ERROR: CONSUMER TASK failed to check in
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
PRODUCER TASK checked in successfully
ERROR: CONSUMER TASK failed to check in
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
PRODUCER TASK checked in successfully
ERROR: CONSUMER TASK failed to check in
Failed to send data to consumer task
taskcontrol resume consumer
-----y
```

### 4) Both the tasks suspended

- Both the tasks suspended and resumed later

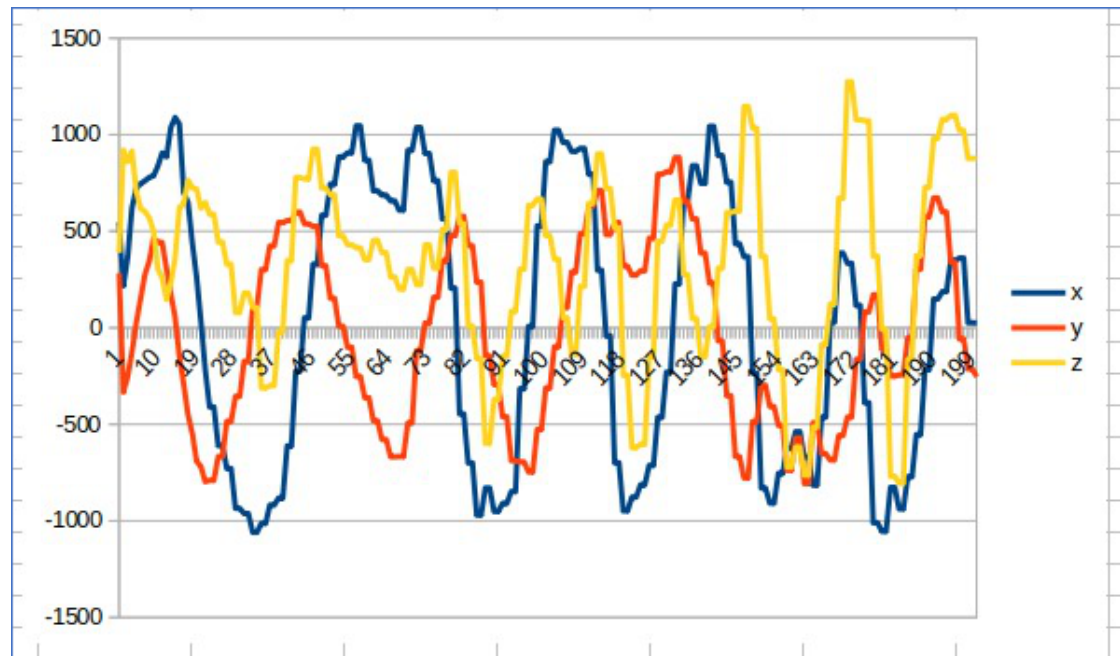


The screenshot shows the Telemetry application interface with the Serial Output window open. The baud rate is set to 115200. The console displays the following log messages:

```
PRODUCER and CONSUMER TASKS checked in successfully
PRODUCER and CONSUMER TASKS checked in successfully
PRODUCER and CONSUMER TASKS checked in successfully
taskcontrol Suspend consumer
-----
PRODUCER TASK checked in successfully
ERROR: CONSUMER TASK failed to check in
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
PRODUCER TASK checked in successfully
ERROR: CONSUMER TASK failed to check in
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
Failed to send data to consumer task
taskcontrol Suspend producer
-----
PRODUCER TASK checked in successfully
ERROR: CONSUMER TASK failed to check in
ERROR: PRODUCER TASK and CONSUMER TASK failed to check in
ERROR: PRODUCER TASK and CONSUMER TASK failed to check in
ERROR: PRODUCER TASK and CONSUMER TASK failed to check in
ERROR: PRODUCER TASK and CONSUMER TASK failed to check in
ERROR: PRODUCER TASK and CONSUMER TASK failed to check in
taskcontrol resume consumer
-----
CONSUMER TASK checked in successfully
ERROR: PRODUCER TASK failed to check in
CONSUMER TASK checked in successfully
ERROR: PRODUCER TASK failed to check in
```



- Data Plot



\*EOF\*