Assignment: **05-SPI**
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Objective: This document contains the description about the screenshot files attached corresponding to each part of assignment.

Part 1 : Reading Flash Signature Value

Telemetry:

1) Telemetry_Part1.png

Logic Analyzer:

1) LA_PART1_Man_id.png
   => Sent 0x98 over MOSI line
   => Received 0x1F 0x84 0x01 0x1F Bytes over MISO line

Part 2: Use of Mutex for Synchronizing two SPI read tasks

Telemetry:

1) Telemetry_Part2.png

Logic Analyzer:

1) LA_PART2_Mutex_help_2_Tasks.png
   => The zoomed out version mentions signature read happening alternating between two tasks.

Part 3: Adding Functionality of Reading and Writing Flash Page

Telemetry:

1) Telemetry_Part3_read_write_pages.png

Logic Analyzer:

1) LA_Part3_Erase_start.png
   => Sent 0x06 over MOSI to enable WEL
   => Sent 0x20 over MOSI to start erasing
   => Sent 0x000000 3 Bytes address over MOSI Line
   => Started reading Status register Byte 1 by sending 0x05 Byte over MOSI
2) LA_Part3_Erase_Success.png
   => Status register Byte 1 value read as 0 to know Erase success
3) LA_Part3_Write_Page_data.png
   => Sent 0x06 over MOSI to enable WEL
   => Sent 0x02 over MOSI to start write sequence
   => Sent 3 Byte address over MOSI
   => Sent data Byte over MOSI
4) LA_Part3_Read_Page_data.png
   => Sent 0x0B as Read opcode over MOSI line
   => Sent 3 Byte address over MOSI
   => Sent one dummy Byte over MOSI
   => Read data successfully which was written