

Producer = PRIORITY_LOW
Consumer = PRIORITY_HIGH

```
entry_point(): Entering main()
Starting RTOS
Consumer Task
Producer Task
Line 68, receiving witch status: 0

Consumer Task
Losumer Task
ng switch status: 0
Producer Task
Line 68, receving switch status:

Consumer Task
Losumer Task
ng switch status: 0
Producer Task
Line 68, receving switch status:

Consumer Task
Losumer Task
ng switch status: 1
Producer Task
Line 68, receving switch status:

Consumer Task
Losumer Task
ng switch status: 0
Producer Task
Line 68, receving switch status:

Consumer Task
Losumer Task
ng switch status: 1
Producer Task
Line 68, receving switch status:
```

Observation:

- 1) Consumer Task Starts Initially, does not print printf statement after xQueueReceive(); as nothing is in Queue to receive
- 2) Due to context switching, task switches back to higher priority resulting in jumbled printf statements.

Producer = PRIORITY_HIGH
Consumer = PRIORITY_LOW

```
entry_point(): Entering main()
Starting RTOS
Producer Task
Line 55, sending switch status: 0
Consumer Task
Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 11 Line 68, receiving switch status: 1
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 11 Line 68, receiving switch status: 1
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
```

Observation:

- 1) Producer Task starts initially, with max block time set to default 0.
- 2) Since we have vTaskDelay(1000); Consumer task prints before xQueueReceive and waits for the value due to portMAX_DELAY
- 3) But since the producer task has higher priority it goes back to with context switching.

Producer = PRIORITY_LOW
Consumer = PRIORITY_LOW

```
entry_point(): Entering main()
Starting RTOS
Consumer Task
Producer Task
Line 55, sending switch status: 0 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 11 Line 68, receiving switch status: 1
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 11 Line 68, receiving switch status: 1
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
Line 55, sending switch status: 11 Line 68, receiving switch status: 1
Consumer Task
Producer Task
Line 55, sending switch status: 00 Line 68, receiving switch status: 0
Consumer Task
Producer Task
```

Observations:

- 1) Consumer task starts initially and since there is nothing to receive in xQueueReceive, printf message after that does not print as it is in portMAX_DELAY.
- 2) Since producer task has vTaskDelay(1000);, and both tasks having the same priority round-robin scheduling occurs, consumer task keeps waiting for switch_value and stops at xQueueReceive.