

Exercise 14 Semaphore Barrier

In this exercise we will use semaphores to create a barrier to synchronise multiple tasks.

In the Pack Installer select "Ex 14 Barrier" and copy it to your tutorial directory.

Build the project and start the debugger.

Open the Peripherals\General Purpose IO\GPIOB window.k

Run the code.

Initially, the semaphore code in each of the threads is commented out. Since the threads are not synchronised the GPIO pins will toggle randomly like in the rendezvous example.

Exit the debugger.

Remove the comments on lines 62, 75, 80 and 93 to enable the barrier code.

Built the project and start the debugger.

Run the code and observe the activity of the pins in the GPIOB window.

Now the tasks are synchronised by the semaphore and run the LED functions 'concurrently'.