This assignment is due October 7, 2010 in class. No electronic copy will be accepted.

Description: Implement in SystemC to do the following:

- The map is divided in grid. We assume there are 64 grids in square map. There are 4 mobile robots. The robots are navigated with a sequence of indices. Assume that the sequences are generated and stored in a script. Therefore, a path is defined as a list of grid indices. There is one server that controls all robots.
- Each Mobile robot moves to a new adjacent grid or stay every Tb seconds.
- The command signal is generated by the server in round robin.
- Initially, the server contains all the navigation paths as well as communication ordering.
- First, the server sends the signal to a mobile robot to move one grid. Then the mobile robot sends back the ACK indicating that it is moving. The server waits for some time (Tb) and sends the signal asking if the mobile robot is moved and in position. (You can improve by issuing the first commands and wait for Tb, then the second commands).

You task is to design 2 modules, server and mobile robots (you can instantiate the module in the main program).