Read Me

Step 1: Configure Robot Xbee to send data base station Xbee. For this you need to configure both Xbee on same channel and set destination address in the robot Xbee as the serial address of the Base station Xbee.

Step 2: Next we need to burn the AVR with a unique Robot id. Remember we will change only one macro in the program which was defining robot id only. Compile atmega code and the burn it into the robot's atmega.

Step 3: Finally keep the robot at one location and before switching on the robot we will execute the cs684.m file by type the name only in the command window. Remember the file should be in the working directory of the MATLAB.

Step 4: This will take 15-20 seconds to start the code as opening USB port may take some time. When command window will show the message "port successfully opened" switch on the robot and this will start printing the black boxes on the screen.

Simulation

To run the simulation, go into the folder Swarm_Simulation and move into the sub-directory stage.

In this folder, use the command "stage ACC.world" to run the simulation.

The source .c file is in the simulation sub-directory of the directory Swarm-Simulation and any change in the logic is to be done in this file.

The images of the arena are present in the sub-directory bitmaps of the directory stage and the files which contain the drawings of the objects are named intutively in the stage directory.