Part C:
I have read some documentations that include Aria in the web and .cpp in the examples of folder.I will use callbackf function that include ArGlobalFunctor1 and ArGlobalFunctor2.I follow the example.cpp to use getVel,setVel,getRotVel,setRotVel.When the key is pressed about UP,DOWN,RIGHT,LEFT,the value of x,y,theta,distance of obstacles will get.It also can avoid obstacles by sonar.currentReadingPolar and setVel(0).

Part D:
When the function of UP and Down are pressed,the sonar will check whether there are obstacles in the moving direction.I also define the safety of distance and velocity will change that according distance between current postion and obstacles.

Part E:
I use a while loop to reach the goal,and let robot to stop within the distance.I calculate of distance between current position and goal is made.If the distance is within the max_dis,the robot will stop.I use the isHeadingDone and move to help me.