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Week 5

Review of "Wheeley: A Robotic Wheelchair System: Indoor Navigation and User Interface"

In this paper, Yanco described an implementation of safe, interactive, automatic, adaptable and intelligent wheelchair. Several previous designs are reviewed and wheelesley user interfaces are elaborated.

Frankly speaking, I do not like this paper. At first, it compared wheelesley with several related works. It tried to show that wheelesley is superior to previous implementations by pointing out "Some of the previous research on robotic wheelchairs has resulted in systems that are restricted ..." (pg 285, paragraph 1). How are previous wheelchairs restricted ?

o NavChair? : "The height of the sensors prevents the system from being used outdoors since it cannot detect curbs"

Is it a theoretical or practical limitation ? did Yanco ever think the considerations why the designers of NavChair? did so ?

how Yanco made his wheelchair applicable in outdoor environment since "outdoor navigation is currently under development"

(pg 257 paragraph 2 last sentence)?

o deictic navigation system: The author pointed out that "a complicated menu might be difficult to control ..."

My question: Is wheelesley really simpler ? Can wheelesley do the same thing as deictic system ?

Again, did the author ever think of why the designers of deictic navigation system designed it so ?

Did the author ever think what will the designers of deictic navigation system comment of wheelesley ?

o TACO: the author said, "in joystick mode, no assistance is provided".

My question: what assistance is provided in wheelesley's navigation menu in powerbook ?

Review of "Effects of Robot Assisted Activity to Elderly People who Stay at Health Service Facility for the Aged"

In this paper, the authors stated the specifications of the seal robot and the placebo seal robot and the the elders' reactions to those 2 kinds of robot. The results show that the seal robot (with some "intelligence") do better job than the placebo seal robot.