Titel:

“Autonomous mobile robot navigation”

Promotor: Peter Slaets and Luc Vandeurzen
Location: Groep T

Description:

Today, a lot of autonomous mobile robots are present on the market for vacuum cleaning (Roomba), lawn mowing (Bosch) or the Google car.
A lot of commercial platforms are currently available on the market both for industrial and research purposes. This master thesis starts from an available mobile robot (Summit, TurtleBot or Irobot Create) driven by the ROS software platform. In a first phase the platform will be used to navigate without collision in the Group T building and in a second phase the platform will be extended with additional sensors (sound, vision, distance, temperature, …). The final surveillance task would be to navigate to a location based on real-time sensor input.

Literature survey: 20 %
System setup (basic navigation): 40 %
System extension (sensors): 40%