

Robotino the Follower



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Robotino the Follower

- ❑ Mobile Robot that can follow a person
- ❑ Obstacle avoidance, Command by Gesture, 2D/3D Mapping...

Sensors:



□ RGBD Sensor (Asus Xtion)

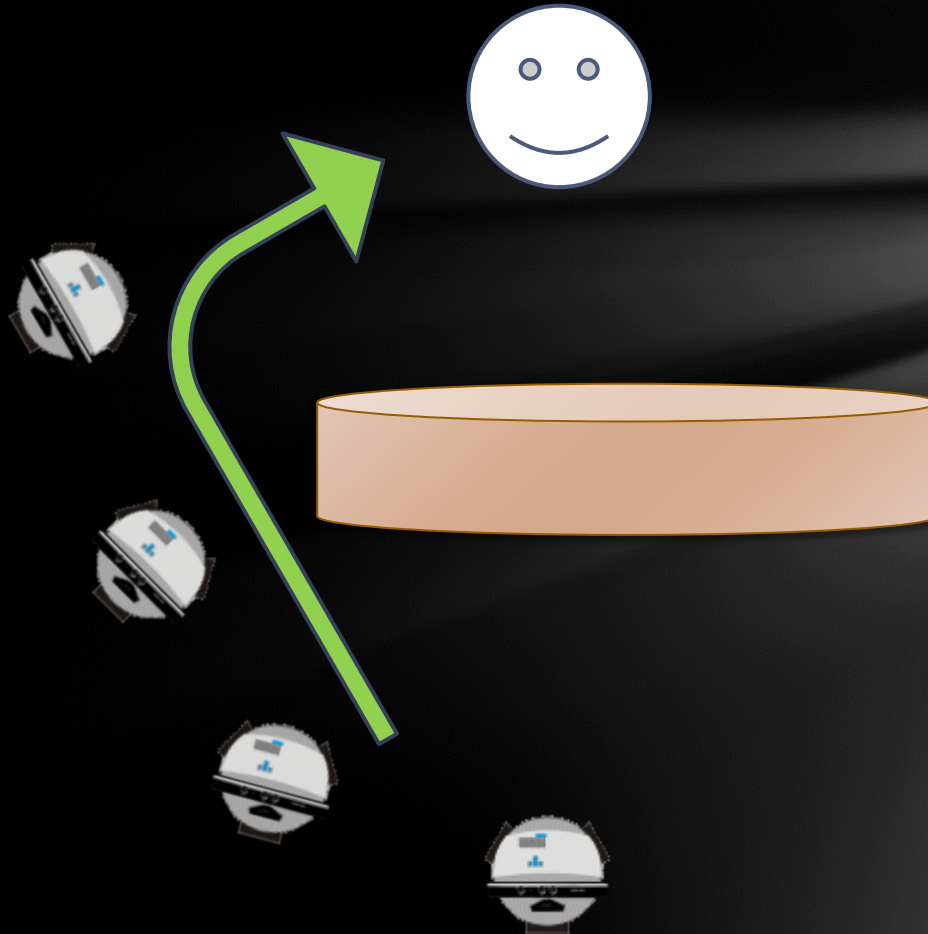


□ Laser Rangefinder

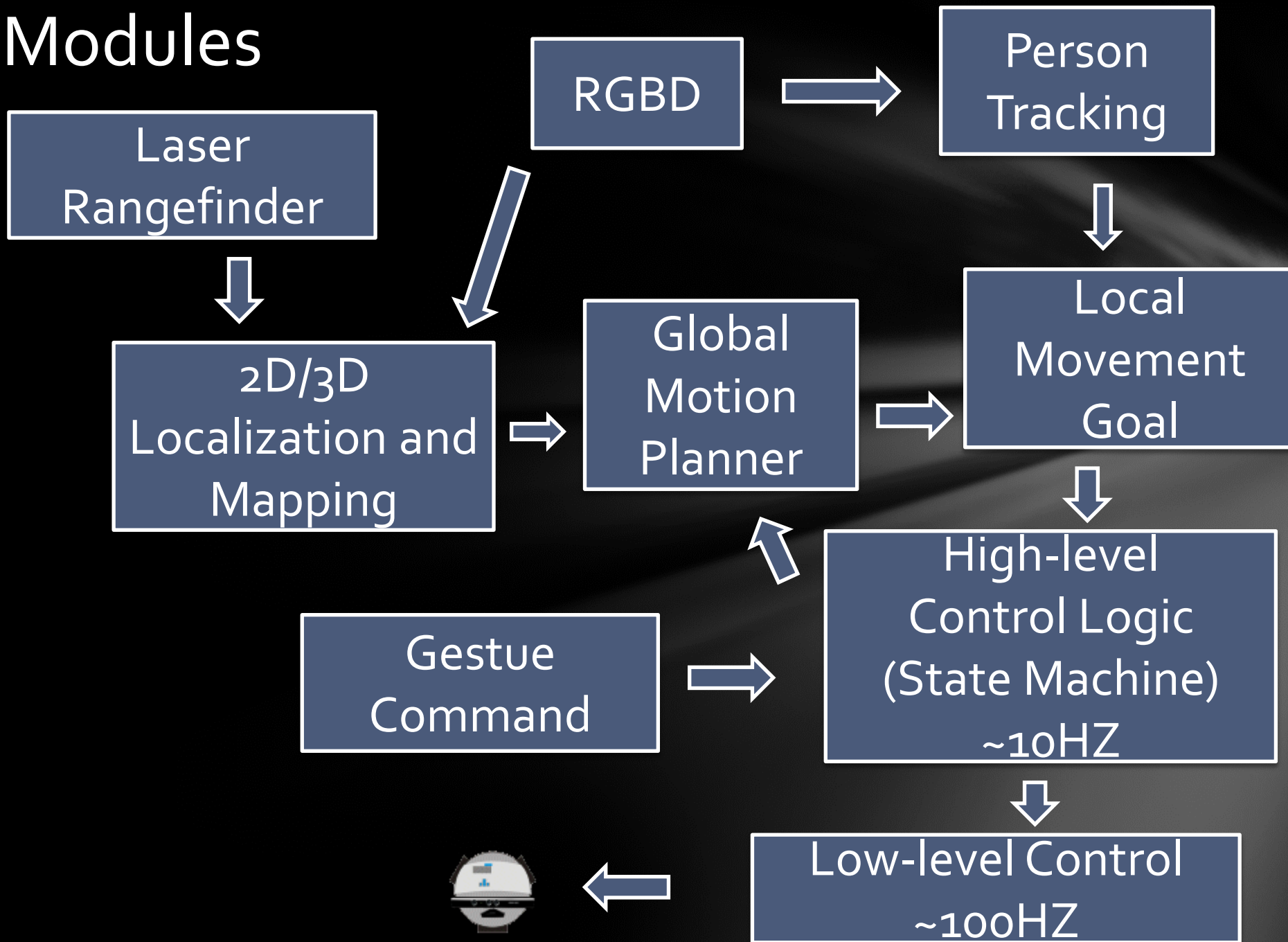
Road Map:

1. Person tracking / following (naïve follower)
 - To Robustly follow a specific person
 - Using OpenNI
2. Building Occupancy Map (and 3D/Octomap)
3. Obstacles Avoidance (while following)
 - motion planning techniques
4. Gestures recognition (e.g. "come" & "stop")

circumvent obstacles while keeping
facing to the person



Modules



Useful Software/libraries

OpenNI (<http://www.ros.org/wiki/openni>)

PCL (<http://www.ros.org/wiki/pcl>)

OctoMap (<http://www.ros.org/wiki/octomap>)

ROS 2D Navigation Stack

(<http://www.ros.org/wiki/navigation>)

ROS Laser Rangefinder Drivers

(http://www.ros.org/wiki/sick_tim3xx)

Robotino ROS Package

(<http://www.ros.org/wiki/robotino>)

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