URDF and SLAM with ROS

http://wiki.ros.org/sw_urdf_exporter

SLAM

https://en.wikipedia.org/wiki/Simultaneous_localization_and_mapping

https://en.wikipedia.org/wiki/Kalman_filter

Introduction - Artificial Intelligence for Robotics Udacity 3:32 Intro to Course.

https://youtu.be/Uqt_pRbR8rI?list=PLAwxTw4SYaPkCSYXw6-a_aAoXVKLDwnHK

200 Short Lectures. For example:

Localization

https://youtu.be/31xZhj2uPr4?list=PLAwxTw4SYaPkCSYXw6-a_aAoXVKLDwnHK

ROS BY EXAMPLE Patrick Goebel

8.1.2 Configuration Parameters for Path Planning

8.4 Map Building using the `gmapping` Package

8.5 Navigation and Localization using a Map and `amcl`

Autonomous Path Planning 44:59 Toren Wallengren

https://youtu.be/fNBrIngCJp8

Describes Minimization problem from A to B. (Euler Lagrange – Min of Energy)

No Obstacles? Go in a straight Line!

Particle Filters

Bert Huang 16:33

https://youtu.be/lzN18y_z6HQ