KOM613E – Probabilistic Methods in Robotics 14 December 2020

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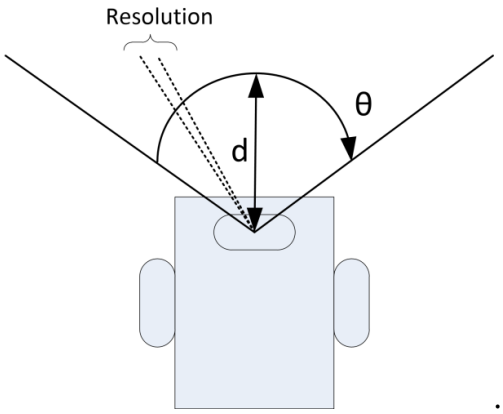
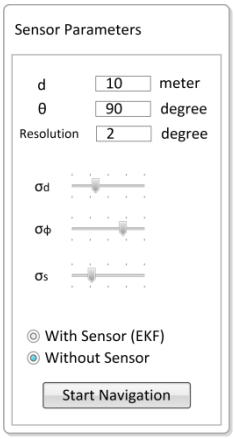
Homework IV Return Due : 20 December 2020 at 23:55

Question: Consider the vehicle modeled by odometry method and the rectangular trajectory given in HW3. Assume a Laser Range Scanner is mounted on the mobile robot and its able to measure range, bearing angle and appearance (signature) information with predefined resolutions as in the following figure:



a) Add a sensor parameter window to your interface program written in MATLAB to change sensor characteristics as below:



b) Add a land mark locator window to locate landmarks arbitrarily and start program to see how landmarks are detected by Laser Range Scanner sensor. And compare sensed landmark location with their correct locations