

Introduction to Robotics

Homework 2

- 1 What are the two categories of rotatory encoders? And by what way to categorize rotatory encoders? (10)
- 2 Describe the speed measurement principles with incremental rotatory encoders, and compare. (20)
- 3 What is the characteristic of grating rules? (5)
- 4: what are the properties of mechanical gyroscope? Explain them. (15)
- 5: Regarding laser ranger, explain the transit time method (渡越法)? (5)
- 6: Regarding acoustic ranger, explain the blind spot and crosstalk (盲区与串扰)? (5)
- 7 Describe the Bayesian Inference framework for mobile robot localization. (15).
- 8: Describe the pseudo code of MCL algorithm for mobile robot localization. (15)