Shiva Shahrokhi

Weekly report

1 My *Objectives* this week

- Complete Uniform distribution torque analysis for pivoted object,
- Complete Uniform distribution torque analysis for free object,
- Complete triangular distribution torque analysis for pivoted object,
- Complete triangular distribution torque analysis for free object,
- Try normal distribution for free object and see if analytically we can solve it.

2 My *Accomplishments* this week

- Completed the uniform distribution analysis. for both pivoted and free.
- completed the triangular distribution analysis for pivoted object.
- have some problems understanding the techniques used for normal distribution finding limit.

3 My *Plan* for next week

- Complete triangular distribution for free object
- Understand why Dr. B's analysis for normal distribution is correct, and try to do the same thing for free object.
- Write up all the stuff in the new organized mathematica code, and correct sections and subsections in the draft.
- Think about angle of repos. And also making the problem statement for using probabilistic motion planning for the object in the configuration space with some obstacles.

3.1 Meeting with Dr. Becker

- Discuss about the results and make sure if all of them make sense and are correct.
- Discuss about the problem statement of the motion planning with obstacles.
- Editing the draft and see if they are suitable for a short journal publication.