Weekly reports are to be emailed to atbecker@uh.edu by 5:00pm on Tuesdays. The purpose of a weekly report is to: (1) give you text and images for your papers, thesis, and dissertation, (2) document progress, (3) identify if you are stuck or need resources.

Weekly report

1. **My *Goals* from last week**
   * To continue investigating the relation between a, s, n, r and PE
   * To provide some plots for the relation between the Energy and the percentage s/a
   * To provide the proof that making both radius for the both spheres the maximum makes PE the maximum
2. **My *Accomplishments* this week**
   * I provided here the most updated excel sheet for different values of s,r and n with r=1%L to r = 8%L for L = 0.1, 0.2 and 0.5:  
     <https://github.com/mmsultan17/Robotics-Lab/blob/master/Gauss%20Gun_New_Correct.xlsx>
   * I wrote my preliminary Paragraph:  
     <https://github.com/mmsultan17/Robotics-Lab/blob/master/Gauss%20Gun.docx>
   * **I found out that the optimum value occurred when:  
     r = 8.3%L , n = 1, a = 0.0192771 r and a/s approximately = 0 for whatever L value**
   * I proved that the absolute value for PE is the maximum when both the radiuses are the maximum, the proof in the following document:  
     <https://github.com/mmsultan17/Robotics-Lab/blob/master/Potential%20Energy%20comparison.docx>

also here you go the plot:

<https://github.com/mmsultan17/Robotics-Lab/blob/master/PE_r_less_than_rmax.fig>

1. **My *Goals* for next week**
   * Improve my writing skills
   * To continue investigating the relation between a, s, n, r and PE
   * Meet with Jarrett and Javier to discuss my new Mathematical results
   * To form my Master thesis committee
   * To send my Master Thesis proposal to the committee
2. **What I need Dr. Becker to do:**
   1. To provide me by his feedback to improve my writing skills.
   2. To discuss my new results
   3. To help me writing my Master Thesis proposal
   4. To enroll me in research class for next semester
   5. To provide me by his feedback to the email that I should send to the professors to form the committee