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 work on 4 spheres gauss gun proof
   * To write my Master Thesis proposal
   * Use Simulated annealing function in Mathematica
2. **My *Accomplishments* this week**
   * I wrote my Master Thesis Proposal
   * I did Math comparison between our Math and Physics paper Math as in the following link:

<https://github.com/mmsultan17/Robotics-Lab/blob/master/Kinetic%20Energy%20Comparison.docx>

* + Will meet with Jarret and Javier on Wednesday
  + I learn new function NMaximize[“Simulated Annealing”
  + I used Simulated Annealing function to help me investigating the plot Vs. r1, r2, r3 and r4 for 4 spheres case and I found that r1 and r3 need to be as small as possible, while r2 and r4 needs to be as large as possible through many trials, but still need to investigate more to verify that and provide a mathematical reason, but for now the slope for r2 and r4 increase faster than r3 and r1

I will provide the plots by Wednesday

1. ***Goals* for next week**
   * To continue investigating the relation between a, s, n, r and PE for 4 spheres
   * Meet with Jarrett and Javier to discuss my new Mathematical results
2. **What I need Dr. Becker to do:**
   1. To provide me by his feedback on the writing part.
   2. To submit the recommendation letter
   3. To give me his feedback on my 4 Spheres results on Wednesday