

**Team: P21100      Engineer: Vishvam Pipaliya**

### **What were the outcomes of the prior phase?**

#### **1. What did I plan to do?**

- Research about honeycomb structure simulation
- Research suppliers for honeycomb structure
- Research alternate material for honeycomb to be used for prototyping
- Create simulation test plans (group assignment)
- Update Confluence (group assignment)

#### **2. What did I actually do?**

- Researched about honeycomb structure simulation - 50% complete
- Research suppliers for honeycomb structure - 100% complete
- Create simulation test plans (group assignment) - 90% complete (might be revised as we progress)
- Update Confluence (group assignment) – 100% complete

#### **3. What did I learn? How were plan and reality different?**

One of the major learning experience from this phase was that sudden problems in design could lead to major shift in project scope and track. After consulting with faculty members, we were recommended to take a different approach than our dynamic MATLAB model. This required the team to put in extra efforts and brainstorm new design ideas. We also had to work under pressure as we have very limited time in our hands to complete the model. Uncertainties and problems could arise anytime and it's always important to have back-up plans. It's also very important to be flexible and adaptive to change. Our team did an excellent job with that.

### **Team level goal for next phase**

Our goal for next phase is to complete our CAD models for lander legs and crushable bottom. We also plan to also carry out majority of our simulation testing by end of next phase. Another top priority for the team will be to finalize Bill of Material for prototyping and place orders for all the required items.

### **What do I plan on doing to ensure that my team has a successful review at the end of the next phase?**

1. Carry out sub-system simulation test on best type of honeycomb structure (4-6 hours)
2. Research about honeycomb structure alternatives for prototype testing (2 hours)
3. Update Project Plan as we progress (45 mins – 1 hour)
4. Update problem tracking and risk management documents (45mins – 1 hour)

5. Create Bill of Material (To be done as a team)
6. Place orders for prototype testing (2 hours)
7. Update confluence (To be done as a team)

**What is standing in my way of meeting my next phase goals?**

Major obstacle for me this semester is time limitations. I am working part-time outside RIT which requires significant amount of time commitment. However, I will try my best to stay on top of things at both ends.