# SAMPE Additive Manufacturing Competition Design Summary

Name: Your Name

Email: YourEmailAddress@mail.com

School: Your School's Name

Registration Number: Your Number will be 11 characters and include both numbers and letters

Faculty Advisor: Your Advisor's Name

Faculty Email: YourAdvisorsEmailAddress@mail.com

# Visual depiction of your design:

Picture(s) Go Here

(with scale AND print direction)

#### **Print Parameters and Orientation:**

Any specific print parameters or print orientation you would like for Stratasys to use when printing your submission. See AMC rules document for defaults.

# Written description of your design:

Why did you choose it? What makes it unique?

### Calculation of your design's structural capability.

Must include failure mode prediction and show the relevant calculations performed. For example, a long column or support element should be analyzed for both compression strength and bulking strength.

#### Column Information:

|                      | Units           | Value |
|----------------------|-----------------|-------|
| Weight               | g               | Here  |
| Load Capacity        | lb              | Here  |
| Height               | in              | Here  |
| Diameter             | in              | Here  |
| Number of Parts      |                 | Here  |
| Cross-Sectional Area | in <sup>2</sup> | Here  |
| Moment of inertia    | in <sup>4</sup> | Here  |
| Modulus              | Msi             | Here  |

### **Compression Failure:**

Your calculations Here

#### **Buckling Failure (Assuming pinned-pinned):**

Euler column formula:

Your calculations Here

C=? for this loading case.

### **Estimated print time:**

### Your calculations **Here**