



# MARSHMALLOW CHALLENGE

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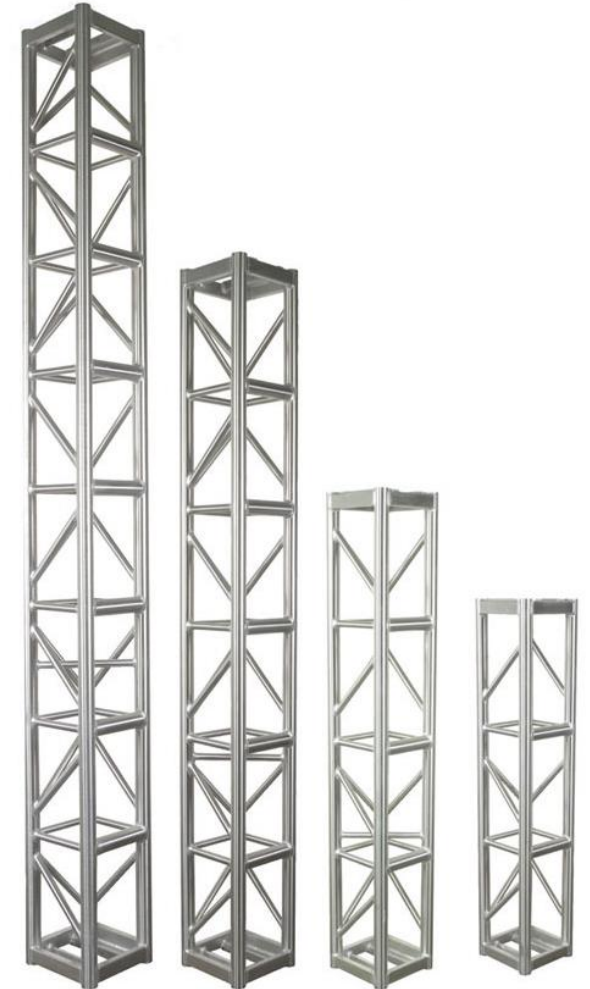
# PROBLEM DESCRIPTION

- Supplies included:
  - 20 spaghetti noodles
  - 1 yard of tape
  - 1 yard of string
  - 1 marshmallow



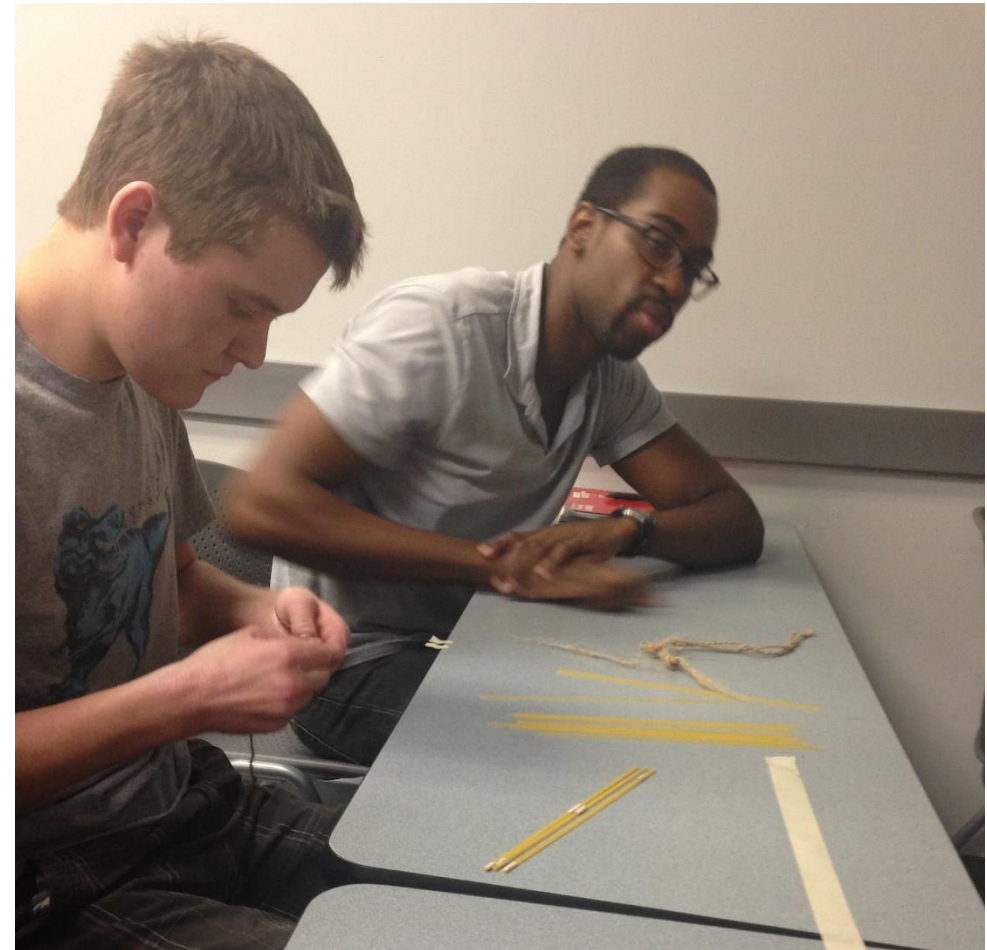
# BRAINSTORMING

- The design would need a strong base.
- Possibly use a truss design.
- Tripod base would be geometrically strongest.



# CONSTRUCTION PROCESS

- Team # 2 decided to start with a cone-like base for the structure.
- 3 spaghetti noodles were taped together to create one leg for the base to make the legs sturdy.
- The three support legs were then constructed into a tepee structure and tied with a piece of string.



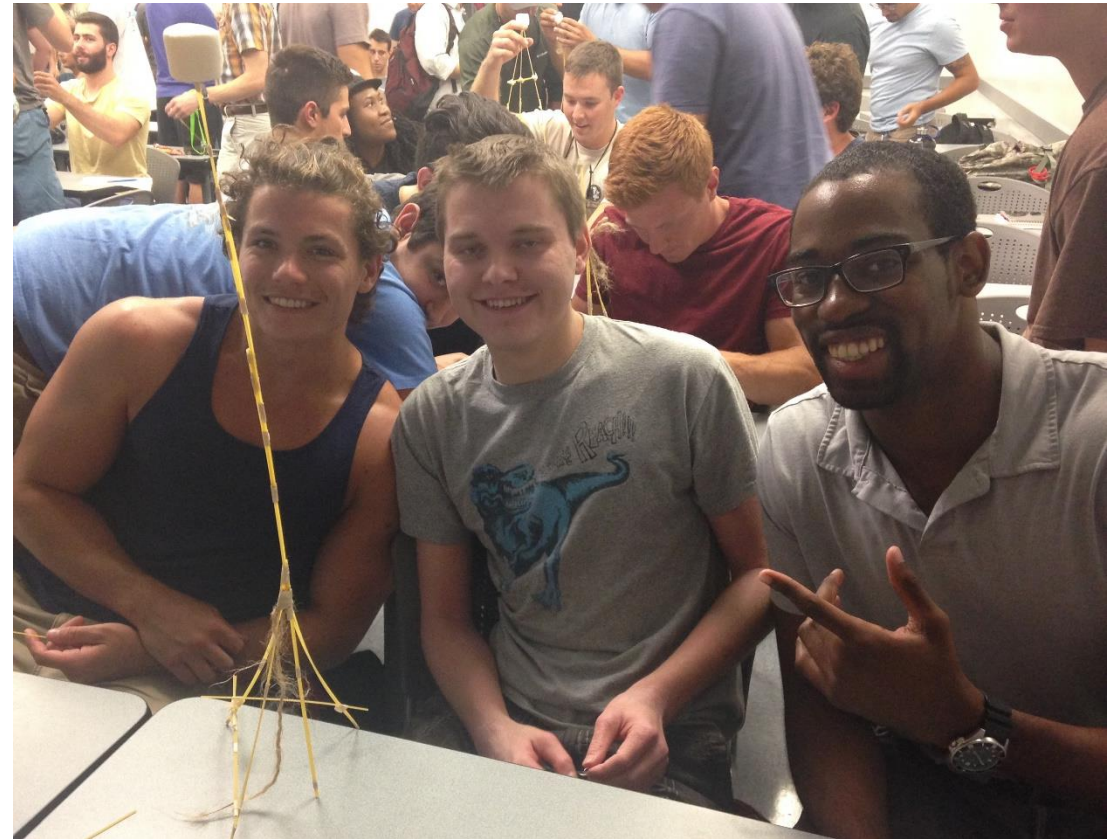
# CONSTRUCTION PROCESS CONTINUED

- From here, the team secured the base by adding spaghetti noodles to each leg, connecting them at each corner.
- The next step was to make the structure as tall as possible.
- By taping more noodles together to ensure no breakage, the team started taping the noodles one on top of the other.



# FINAL DESIGN AND PROBLEMS ENCOUNTERED

- The final design stood 27.5" tall
- Noodle deflection
- Broken noodles
- Unsecure base



# REFERENCES

- [http://www.showsolutions.biz/product.php?subcategory=sp\\_12\\_pro\\_series\\_tower\\_truss](http://www.showsolutions.biz/product.php?subcategory=sp_12_pro_series_tower_truss) (accessed Sep 2, 2015)
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