ITI0209: User Interfaces

03. The Design Challenge

Martin Verrev Spring 2025

The Marshmallow Challenge

Invented by: Peter Skillman. Global Head of Design for Philips. https://www.linkedin.com/in/peterskillman

@video Tom Vujec. TED2010. Build a tower, build a team. https://www.ted.com/talks/tom_wujec_build_a_tower_build_a_team



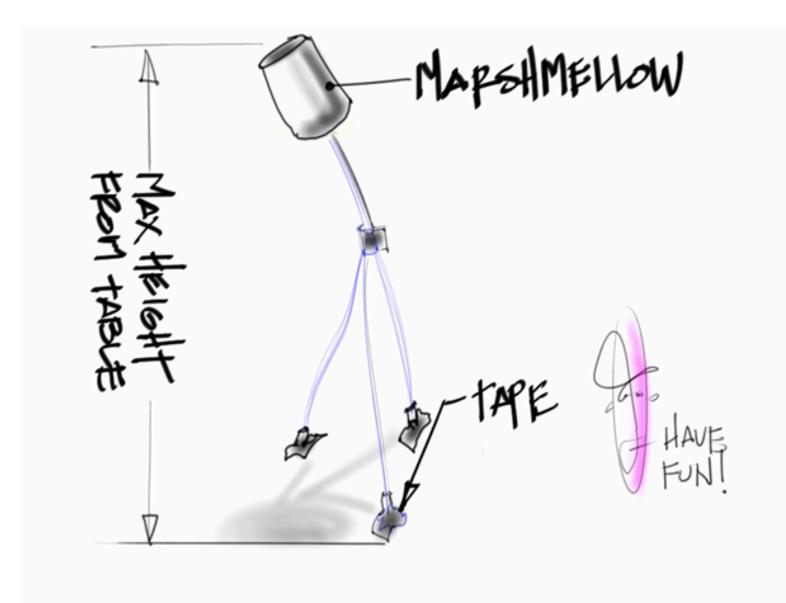
What you get:

20 pieces of spaghettiMasking tapeOne piece of stringOne marshmallow

Constraints:

Free standing 18 minutes

Sketch first... or just start building



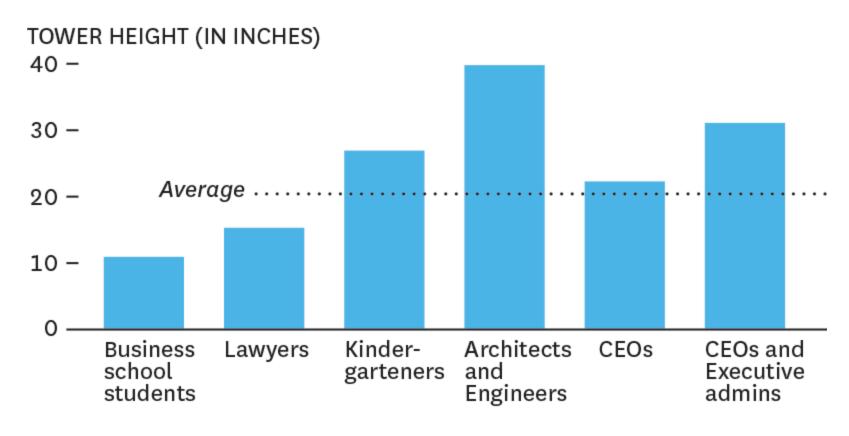
Takeaways

- Building develops your intuitions about how process and materials are connected.
- You learn by doing, discovering problems you can't predict in advance.
- Simultaneous iteration allows you to see a lot of good ideas.
- Being first to market isn't always the best
- Multiple iterations usually beats a commitment making your first idea work.
- All projects have resource constraints; however you can often get additional resources... but you'll never get them if you don't ask.
- Exercises like this illustrate the value of deadlines.
- Encourage wild ideas: What if I tied to the ceiling?

This applies to specs and everything...not just design

ARE YOU MORE CREATIVE THAN A FIVE YEAR OLD?

How high can you build a tower out of spaghetti and scotch tape that can hold up a single marshmallow? You've got 18 minutes. Here's how well various teams of children and adults did.



- Design Collaboration and the Marshmallow Challenge.
 https://mikeschoultz.medium.com/design-collaboration-and-the-marshmallow-challenge-2d6ff653c7e0
- Innovation Leadership Lessons from the Marshmallow Challenge.
 https://hbr.org/2014/12/innovation-leadership-lessons-from-the-marshmallow-challenge
- What can Kindergarteners teach us about working together effectively?
 https://medium.com/@peterskillman/the-design-challenge-also-called-spaghetti-tower-cda62685e15b
- The NEW Marshmallow Tower Challenge.
 https://www.teachingentrepreneurship.org/marshmallow-spaghetti-tower-building-competition/
- Essential Tips for Successful Collaboration A Case Study of the "Marshmallow Challenge". https://link.springer.com/chapter/10.1007/978-3-319-40397-7_9

Thank you!:)