the mere **formulation** of a problem is often far **more essential** than its solution

Albert Einstein
1879-1955, Nobel prize in physics
a relatively smart person

athletics mat sterilizer
rigor in breadth

athletics mat sterilizer
rigor in breadth
rigor in breadth
rigor in breadth
Process opportunity phase
Process opportunity phase
ideation deliverable
for lab this week

at least 20 project ideas in notebook, based on observation
you might be pleasantly surprised if you have many more

top 5 sketched on separate sheets
opportunity/need inspiration
preliminary market research
why feasible
a quick question!
please plant 4 trees

so they are equidistant from each other
it's a process

building step after step

capacity

time

100%

sketch
mockup
technical
final

for real

homework
it’s a mini quiz!

write your name on the top of your index card

list 4 individual creativity strategies
creativity strategy 1
look for the next right answer

creativity strategy 2
look from multiple viewpoints

creativity strategy 3
defer judgement!

creativity strategy 4
challenge assumptions!
Process **opportunity phase**
Process: ideas presentation

- Three ideas presentation: September 24, during class, 3 ideas per section
- Mockup review: October 21, 2 mockups per section
- Assembly review: November 1 & 3, 1 assembly
- Final presentation: December 6, 1 alpha prototype

Sept 24
Three ideas presentation (0)
September 24, during class
3 ideas per section

A → B

Skewed
3 modes

Process ideas presentation
team!
team!
team! more than a group

a group that is interdependent!
why?

the need for teamwork grows with the challenge

no one of us is as good as all of us

a good team!
team!

meaningful purpose

dream team!
WITH GREAT POWER COMES GREAT RESPONSIBILITY
meaningful purpose
dream team!
clear performance goals

dream team!
Dream Team!

- Meaningful purpose
- Clear performance goals
- Communication
- Mailing lists
- Team slack site
- Notebooks
- Peer reviews
- Team reviews
- Meetings
- Milestone feedback
- Communication instructors
- Yoda
meaningful purpose

clear performance goals

complementary skills

communication

dream team!
dream team!

- clear performance goals
- complementary skills
- communication
- mutual accountability
- meaningful purpose
- well-defined work approach
- meaningful purpose
- clear performance goals
- complementary skills
- communication
- mutual accountability

dream team!
percent of respondents

most important team success factors, Ten3 global internet polls
teams!

characteristics correlated with success

• taking the initiative
• results orientation
• attention to detail
• clear guiding philosophy
  (e.g., meeting rules, team code of conduct)

• informality
• high level of praise for performance

Hitt et. al. The birth, life, and death of a cross functional new product design team, HF5415.2.M37 no. 96-111
teams!

characteristics correlated with success

effective communication
management support

Hitt et. al. The birth, life, and death of a cross functional new product design team, HF5415.2.M37 no. 96-111
It's not easy
but we will all help each other to succeed

- course instructor
- teaching assistants
- administrative assistants
- lab instructors
- communication instructors
- technical instructors
- media coordinators
- meta yoda
- librarian

+ 30 mentors!
team

characteristics correlated with success

+ effective communication
  management support
  involvement of all relevant parties
    (including product users!)

- members unwilling to consider other viewpoints
  organizational politics

Hitt et. al. The birth, life, and death of a cross functional new product design team, HF5415.2.M37 no. 96-111
team
challenge #1

idea fair, 7-8 PM tonight!

communication and coordination

mutual accountability
idea fair, 7-8 PM tonight!

see fair link on website

possible opportunities
idea fair, 7-8 PM tonight!

parallel conference sessions

possible opportunities

if you have a conflict coordinate so your session is covered!

dig out opportunities
and project management tutorial in 3-370 today at 4 PM

pizza in Pappalardo 6:30 PM pickup and go!
team

challenge #1

idea fair, 7-8 PM tonight!
team challenge #2

teamwork role playing and problem solving

build the tallest free standing balloon structure

144 balloons (in team color), balloon pumps, 3 rolls packing tape, 3 tape dispensers, 3 pair scissors, pen and paper

outside, in Killian court. Now!

judging at 1:50 PM
team challenge #2

teamwork role playing and problem solving

gather around your team box
select a team manager
one team member wears go pro (it’s on)
all but manager, pick a role
play your role
use only materials provided
please do not tie balloons, must be free standing!
team
challenge #2

teamwork role playing and problem solving

judge at 1:50, step away from structure
gather for awards ceremony
pop balloons
discuss your roles and impact on performance
team photo and video
cleanup!
team
challenge #2
teamwork role playing and problem solving
judge at 1:50, step away from structure
gather for awards ceremony
pop balloons
discuss your roles and impact on performance
team photo and video
cleanup!