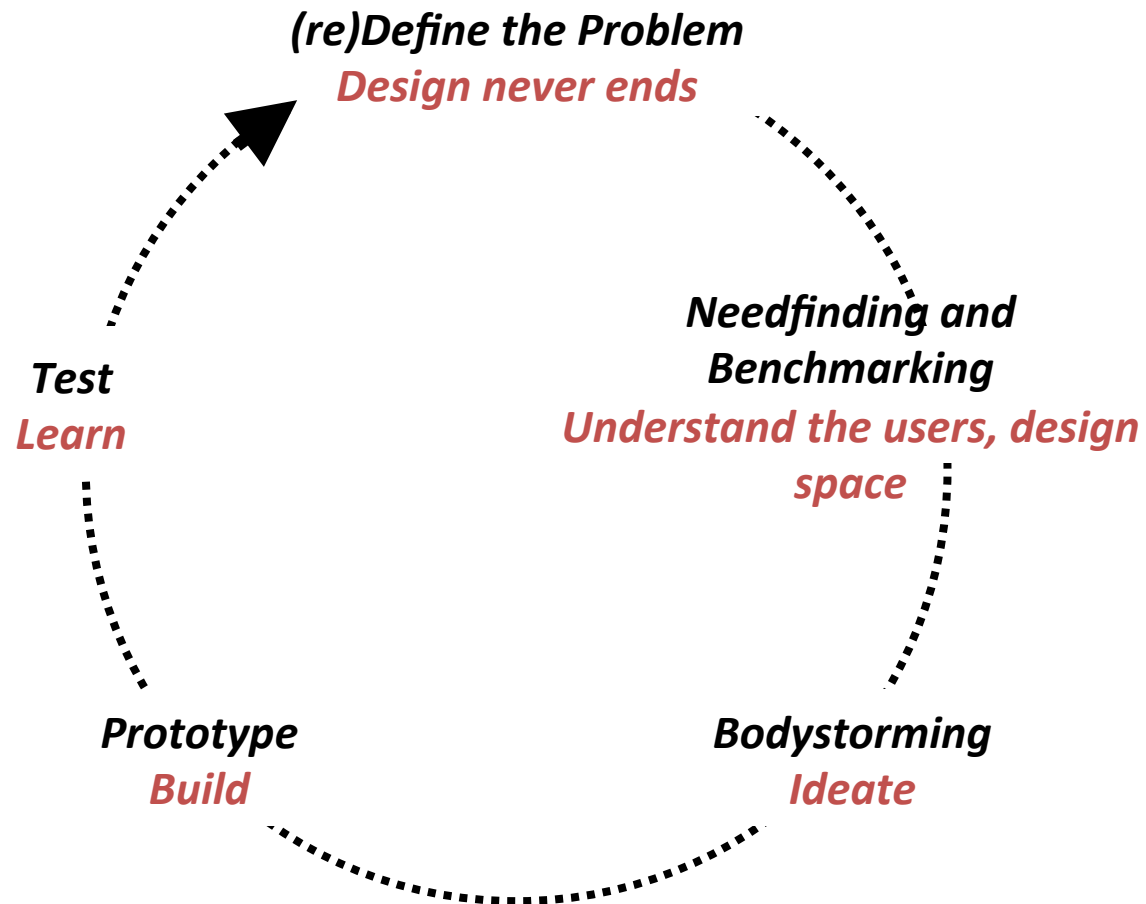


## *Where we are in the process:*

- ✓ Brainstorm and explore to find a reasonable “usage case.”
- ✓ Invent or find a User and think about what she needs (requirements, wishes).
- ✓ Make a **Critical Function** or **Critical Experience** prototype.
- ✓ **CFP/CEP Bazaar** to share ideas with others & practice “elevator pitch.”
- Today: 5 minute mini-presentation on what you have learned and what the next steps would be

*ricordiamo...*

# **Stanford-IDEO** **early *design process***



# 1. Brainstorming

- **Generate** ideas in a group.
  - Everyone should participate!
- **Sketch** as much as possible.
  - Images suggest abstract concepts.
  - It does not matter if rough!
- **Don't reject** anything initially.
- **Build** on ideas of others.
  - (“And...” *not* “But...”)

## Then:

- Organize (sort and arrange)
- Select
- Refine...

## 2. Identifying potential users



[https://www-robotics.jpl.nasa.gov/people/Aaron\\_Parness/](https://www-robotics.jpl.nasa.gov/people/Aaron_Parness/)

***what does Aaron want or need?***

## 2. Need-finding:

What do potential users actually do?  
What do they want or need?

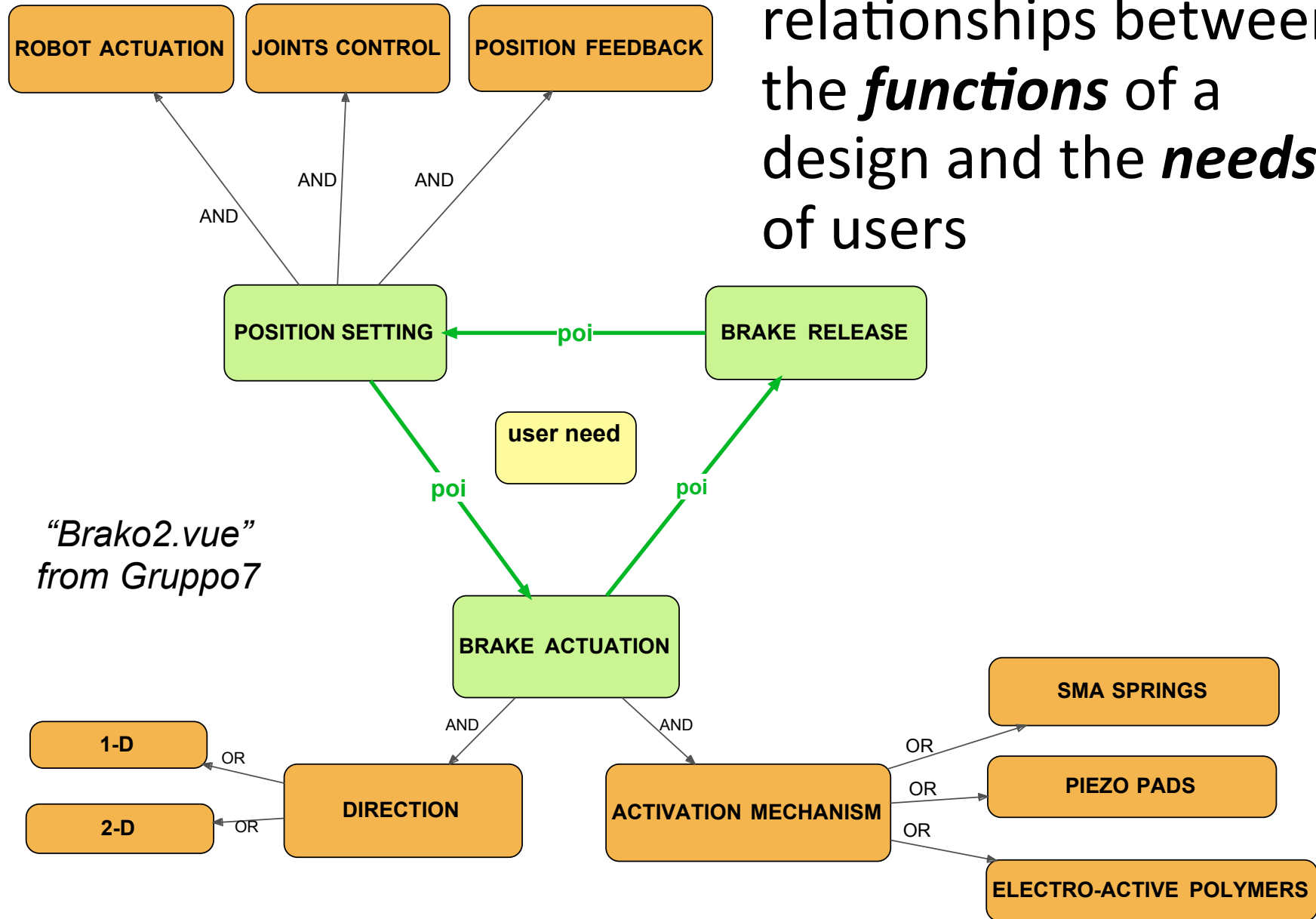


*From **Deep Dive** video of IDEO*



*From **Gruppo1** video*

### 3. Tools for exploring relationships between the *functions* of a design and the *needs* of users



*“Brako2.vue”  
from Gruppo7*



# 4. prototype storming



# 4. prototype storming



# 5. Experience Prototyping



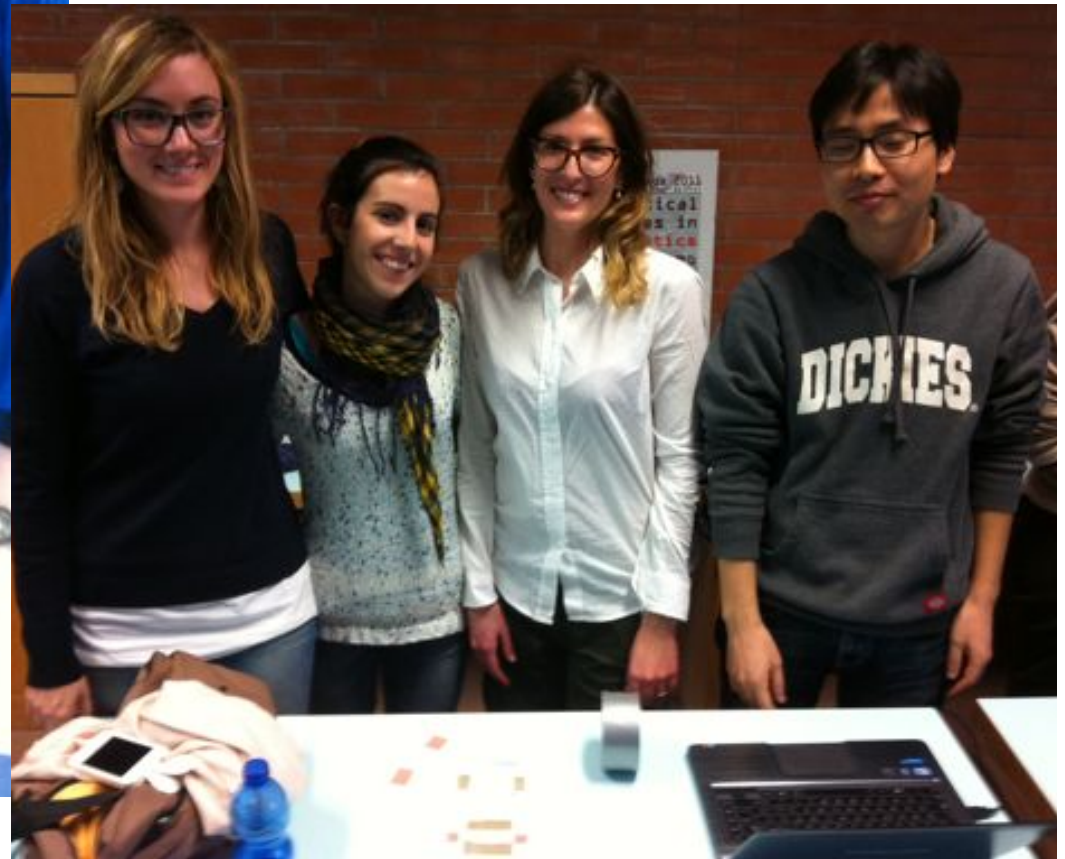
*Make something that allows you, and potential users, to get an idea of what the experience of using the design could be like.*



*From Deep Dive video of IDEO*

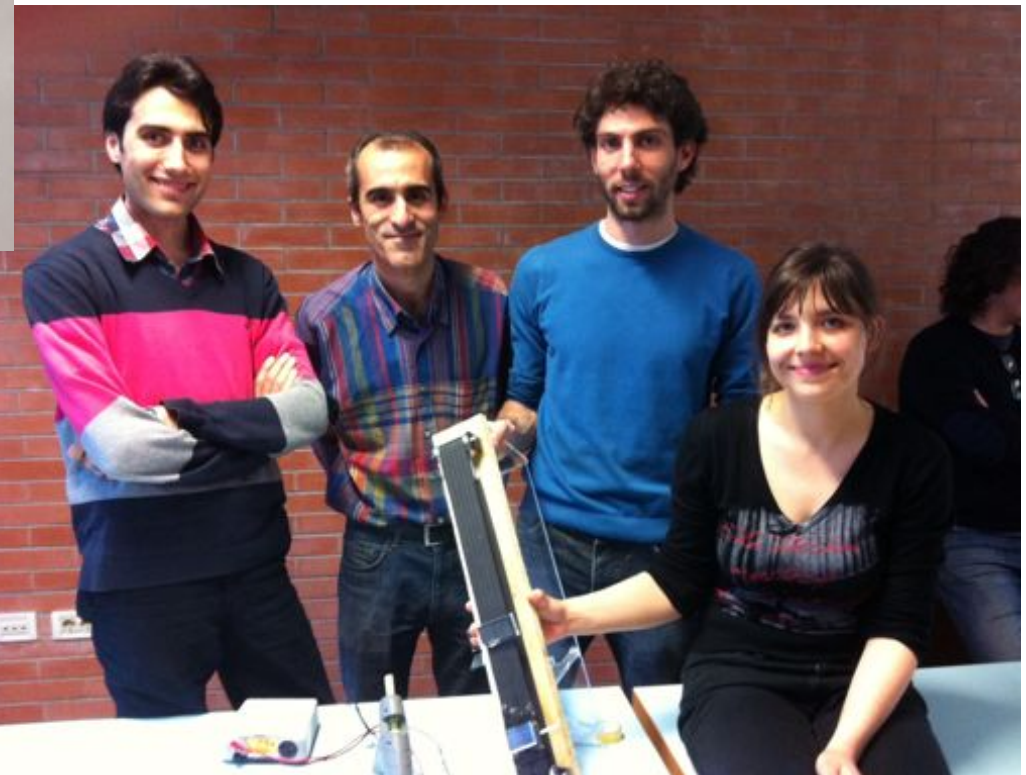
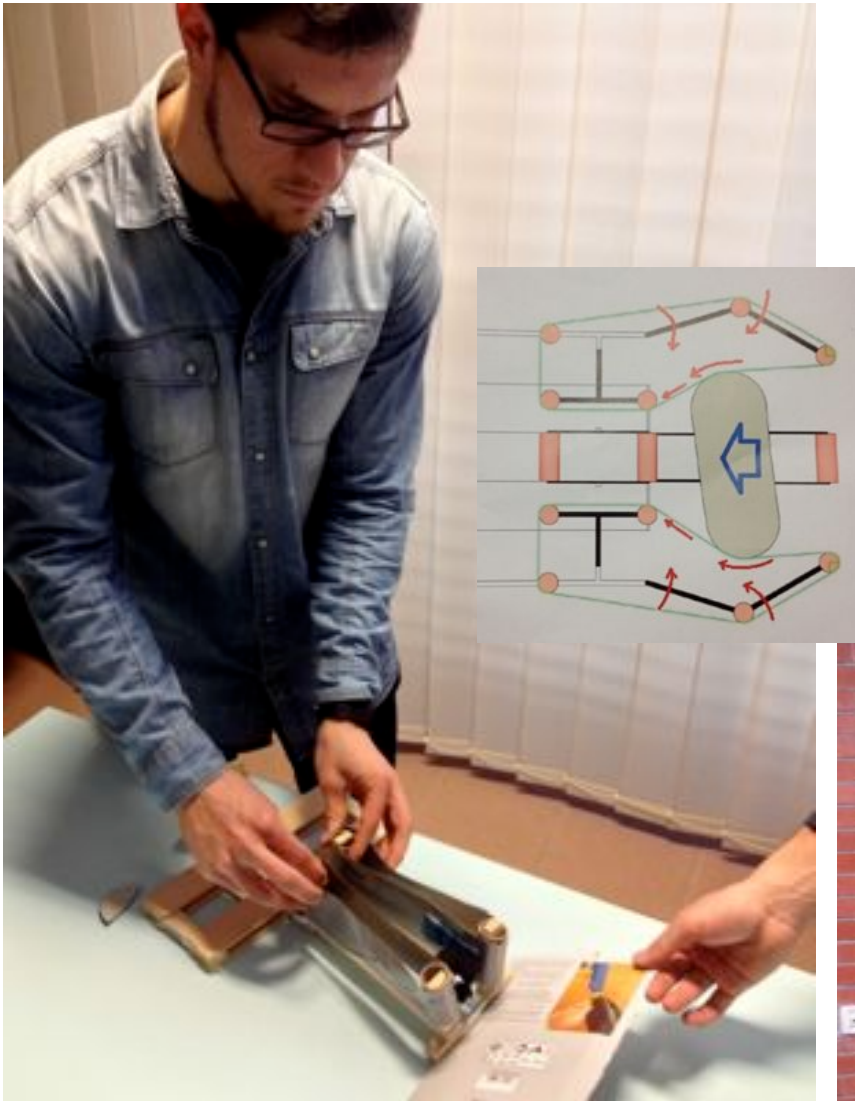
# 5. Experience Prototyping (CEP)

Make something that allows you, and potential users, to get an idea of what the *experience of using the design* could be like.



# 6. Critical Function Prototyping (CFP)

A very rough, quick prototype that explores a **functional idea**. The goal is to learn something and gain some intuition.



# Some CFP observations

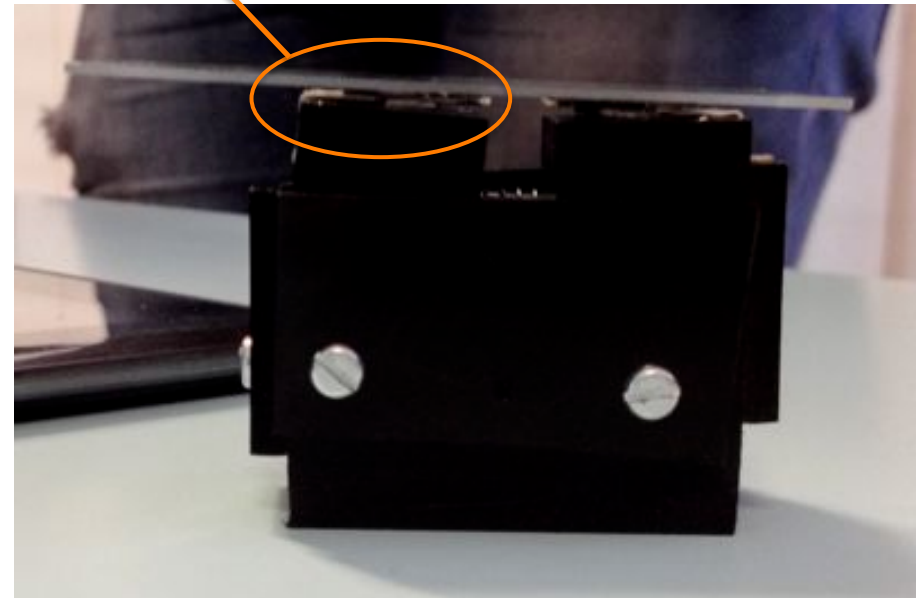


Like the gecko, the directional adhesives work best “suspended” with the load forces applied virtually from the *center of the pad*.

This is not surprising, given that they were designed originally for climbing robots.



— anche “sospeso” . . .



# Some CFP observations



positive normal force  
(applied by elastic bands)  
helps to achieve pressure  
over entire area

*However, if the main interest is not in  
adhesion, but in **anisotropic friction**,  
and if precise alignment between the  
two faces is possible,  
then the “suspension” is not necessary.*

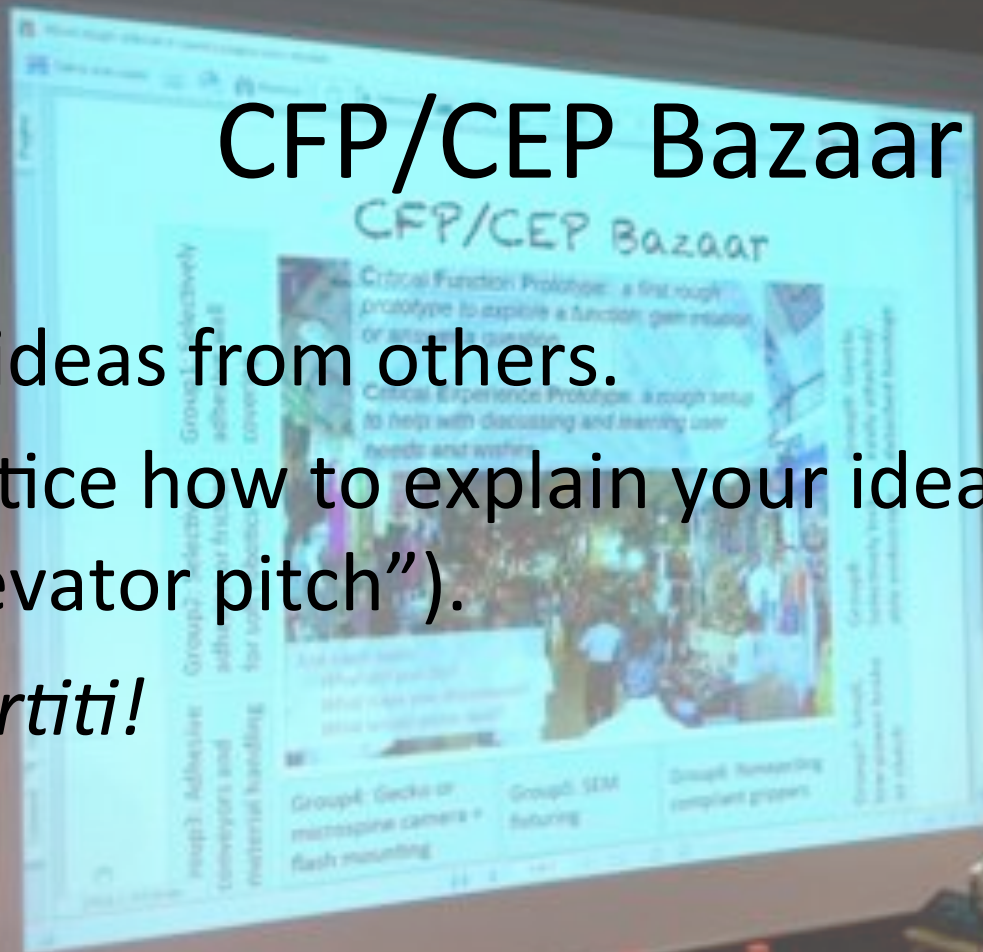
Video:

[http://bdml.stanford.edu/uploads/Main/CFPCEPBazaar/IMG\\_1331.mp4](http://bdml.stanford.edu/uploads/Main/CFPCEPBazaar/IMG_1331.mp4)

# CFP/CEP Bazaar

goals:

- Get ideas from others.
- Practice how to explain your idea concisely (“elevator pitch”).
- *Divertiti!*



**Poi...**

Stanford-IDEO

like design process ...

**in reality**

