



# when rubber hits the sky

edward tse – project research leader  
smart technologies





You can never take all the  
credit for a good idea

But it's all yours if it's a bad idea

# about me



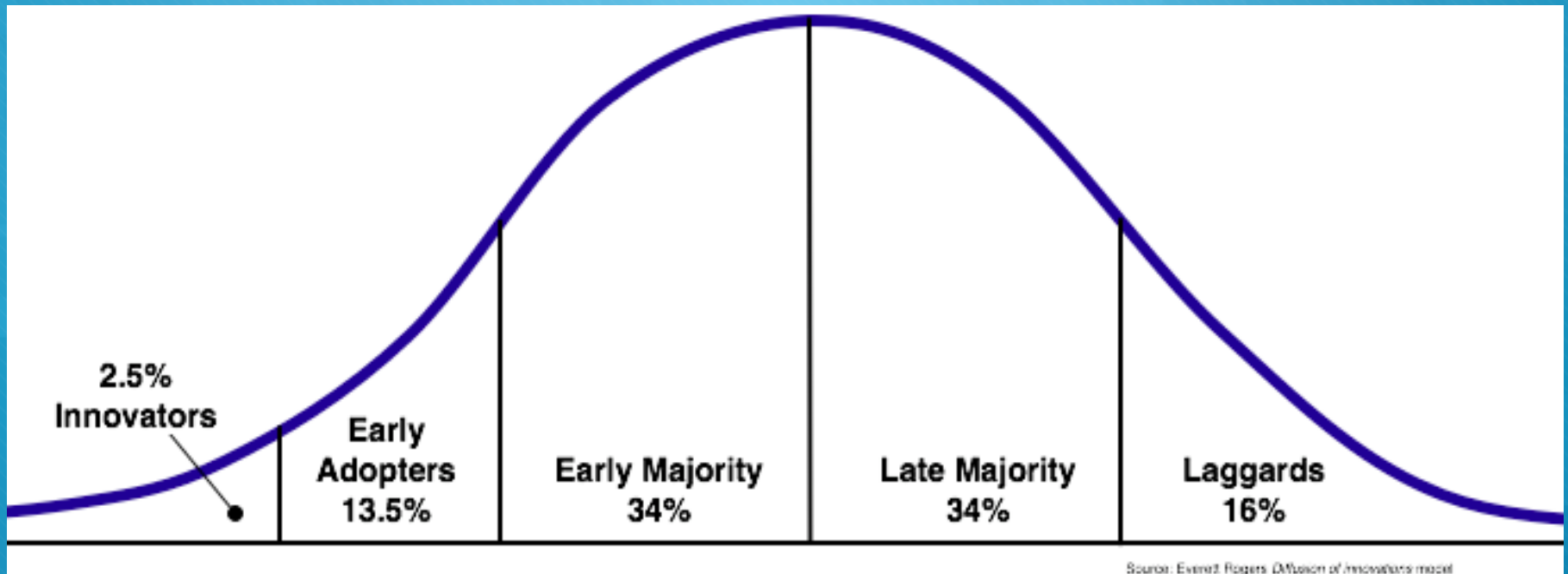


# research in academia and industry

<b>academia</b>	<b>industry</b>
curiosity driven	market driven
in depth studies	quick & dirty
papers	patents and tech transfer
peer review	customer review
prototypes & demos	prototypes & demos
conference presentation	tradeshow presentation

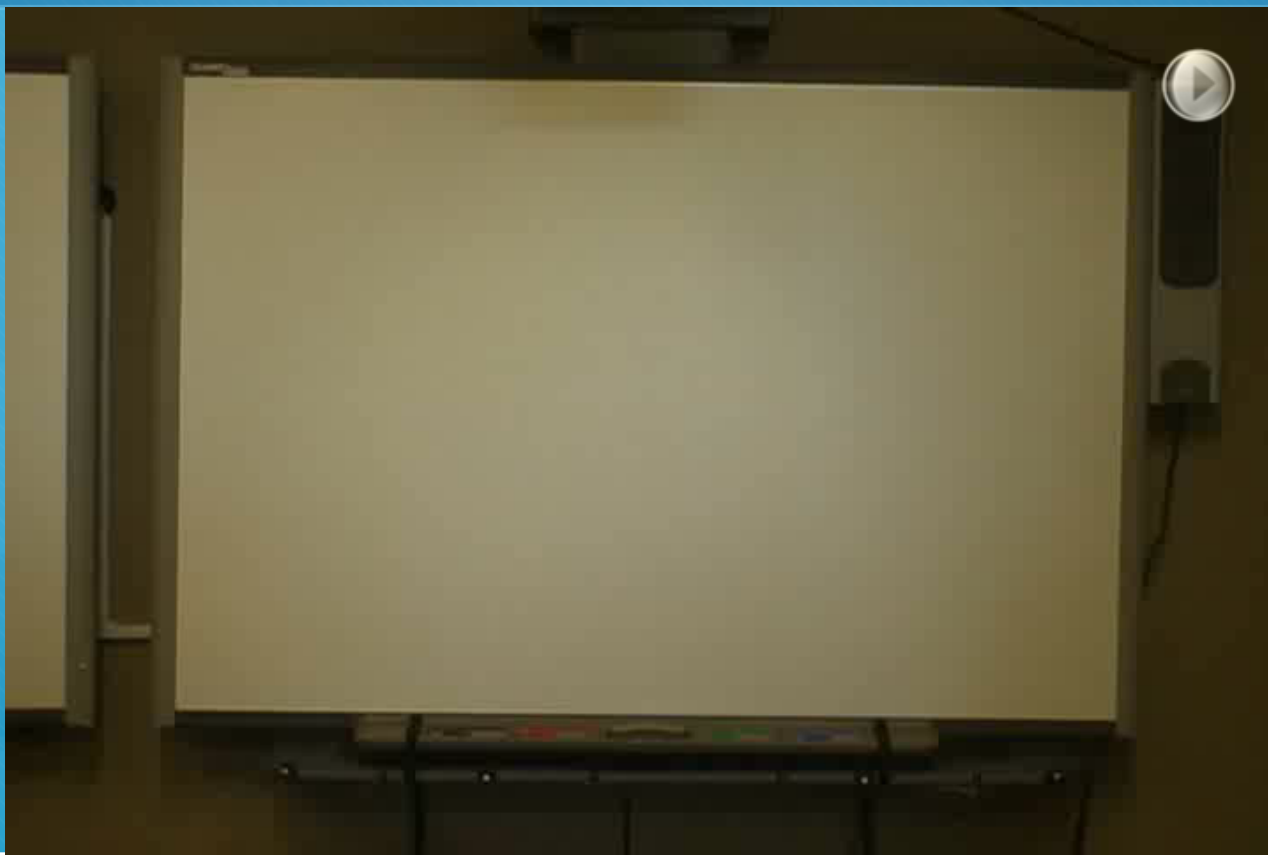
- “the future is already here, it’s just not evenly distributed”
  - -william gibson

# diffusion of innovations

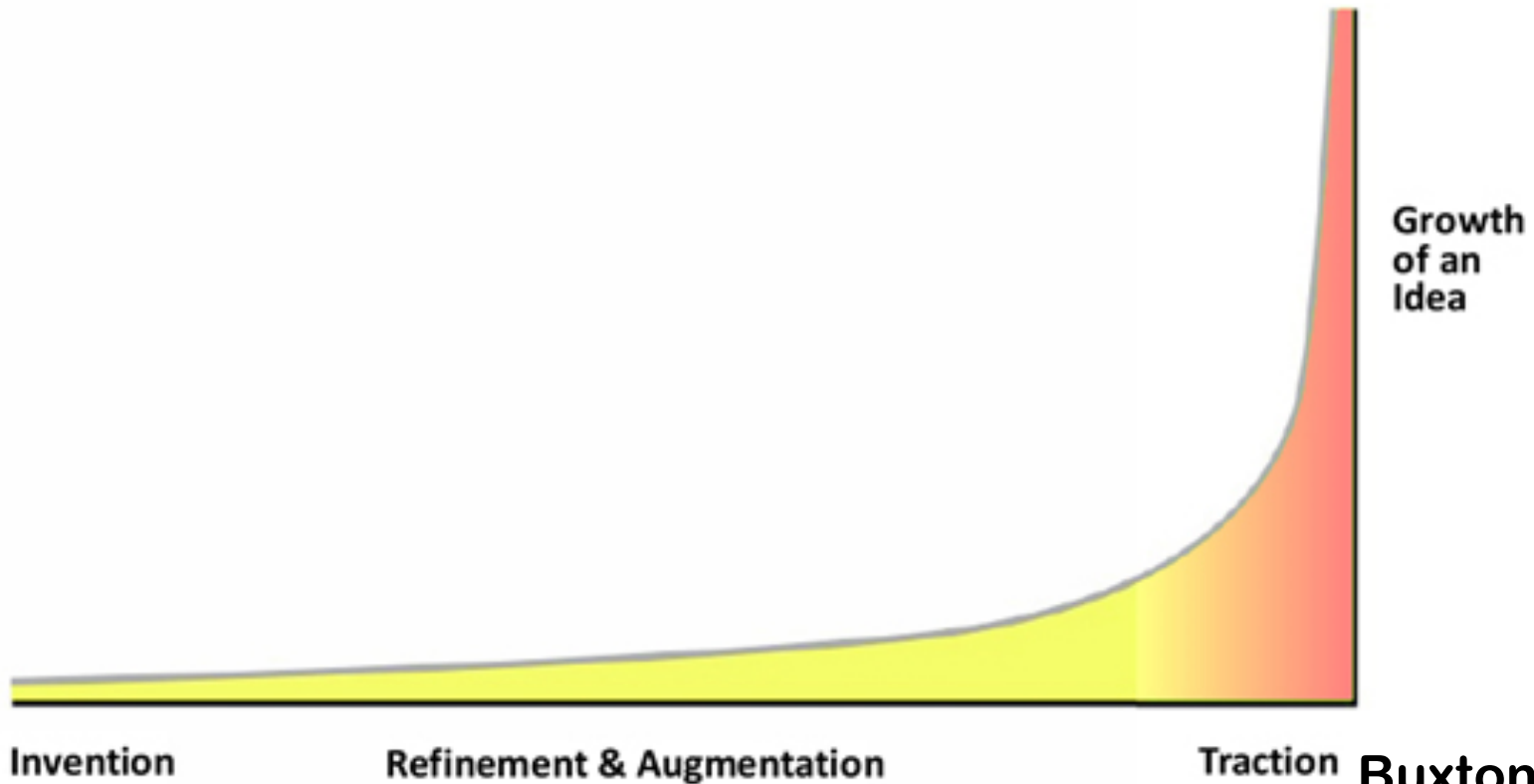


Rogers, 1962  
Moore, 2007

turn it on?



# long nose



Buxton, 2008



# smart table timeline

2 Touch  
Product

Table  
Prototypes

∞ Touch  
Research

∞ Touch  
Table  
Prototypes

SMART  
Table  
Product

SMART  
Tables

2003

2006

2007

2008

2009

2010

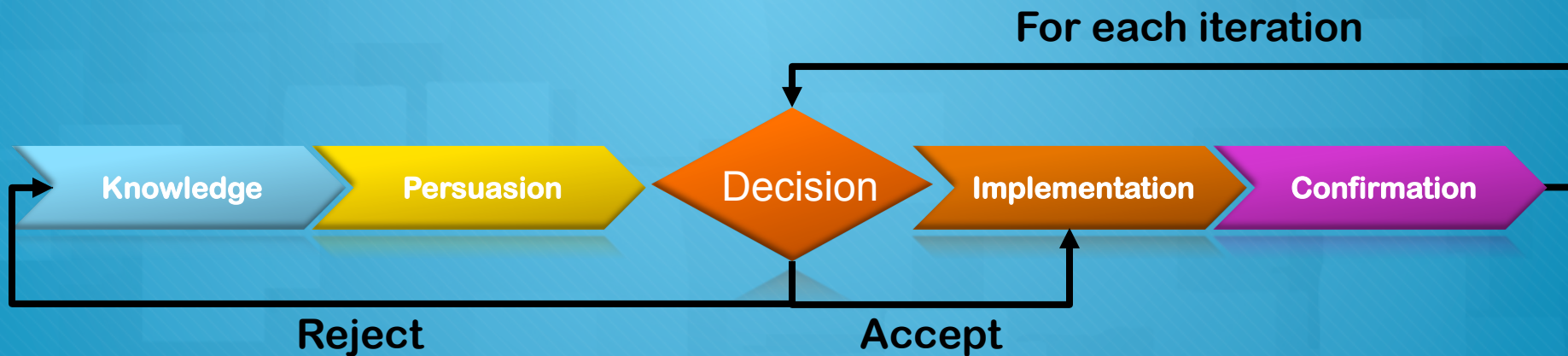
Research and Prototyping

Product Development

# smart table



# adoption process



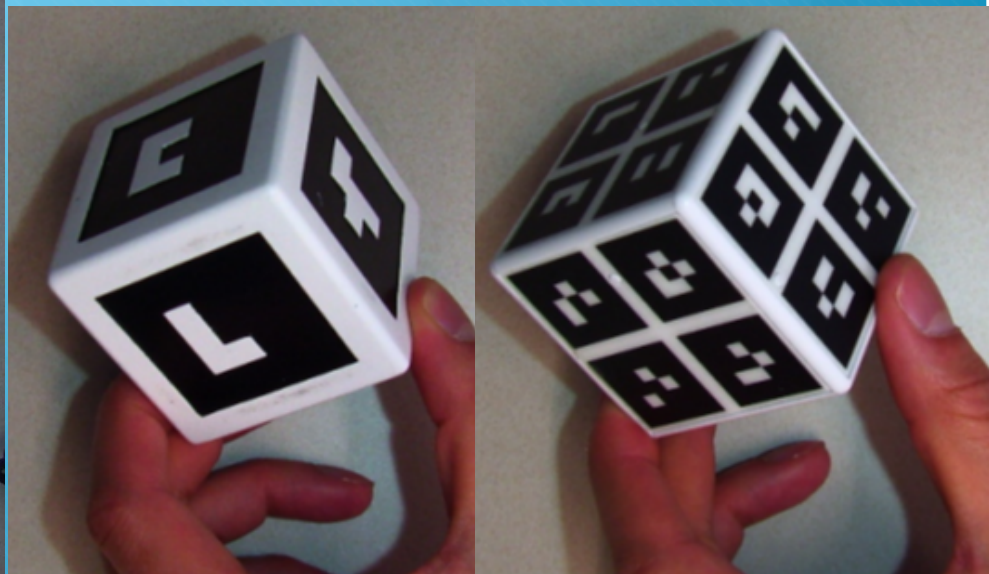
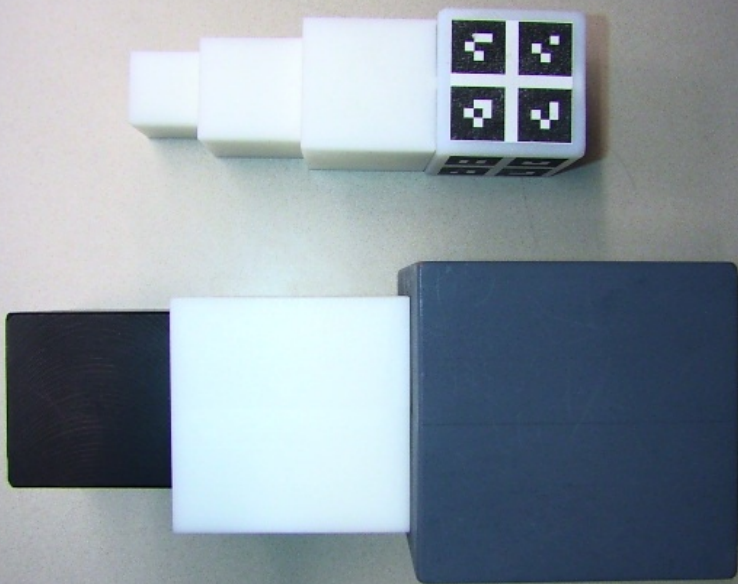
# mixed reality



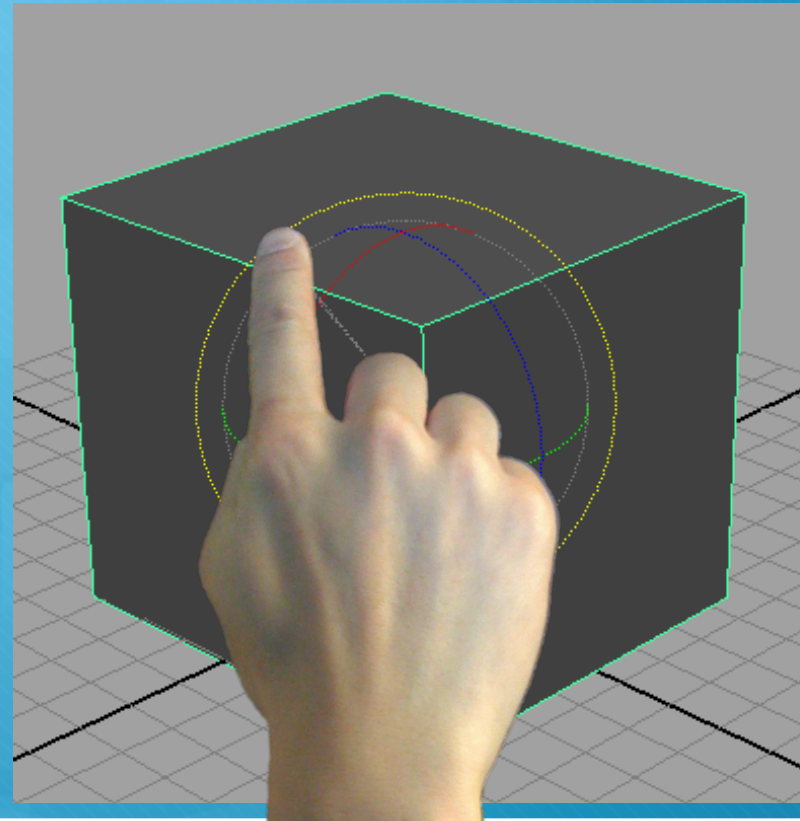
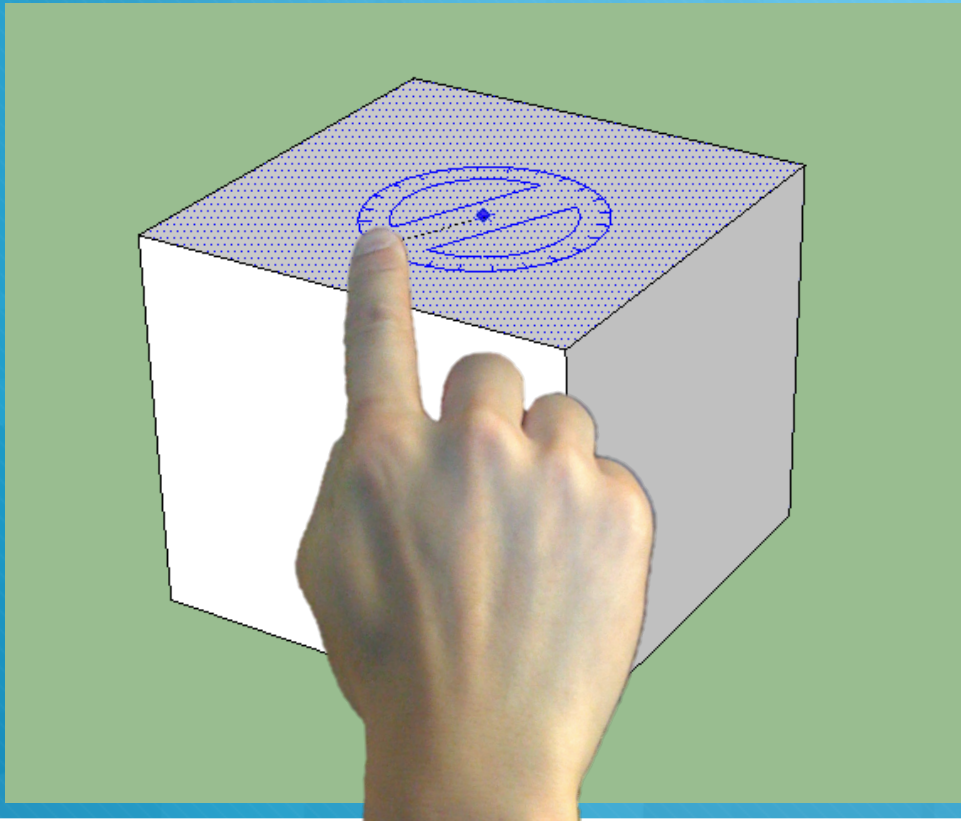
**mixed reality**



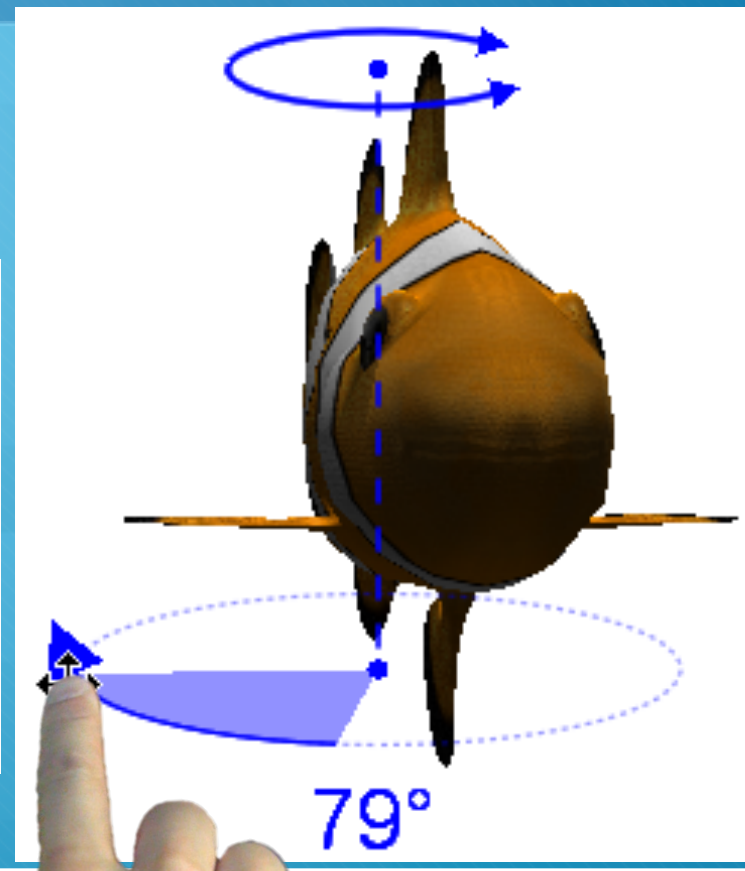
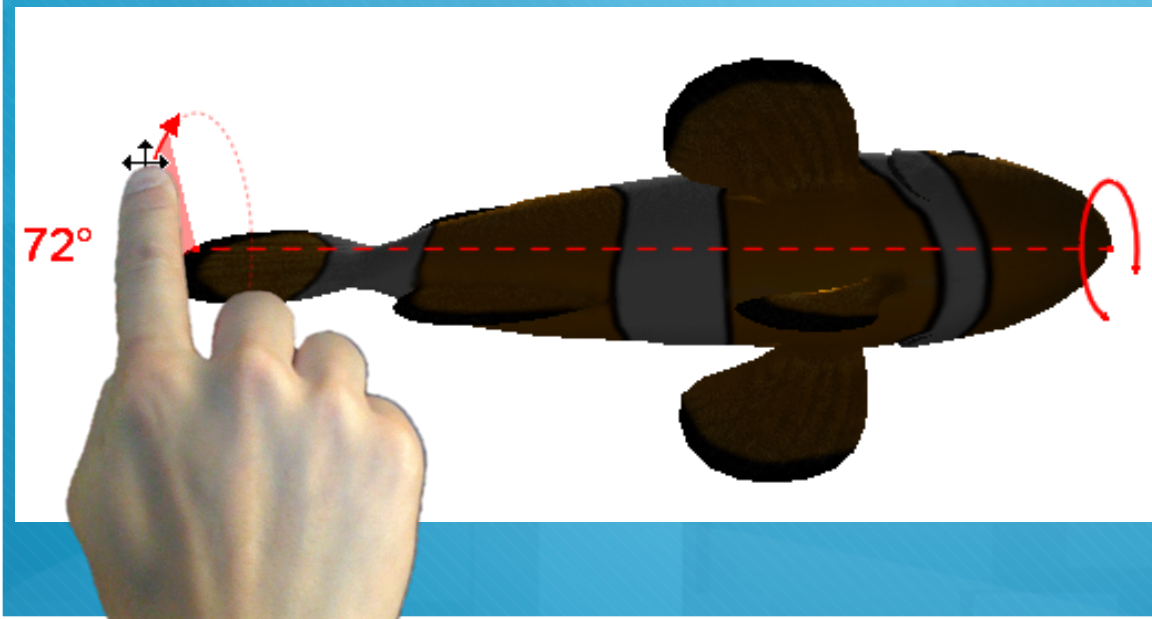
# cube iterations



# 3d on a smart board?



# occlusion free handles





# 3d tools



# environment matters



# Adults



# Adults



# Kids



# Kids



# Kids



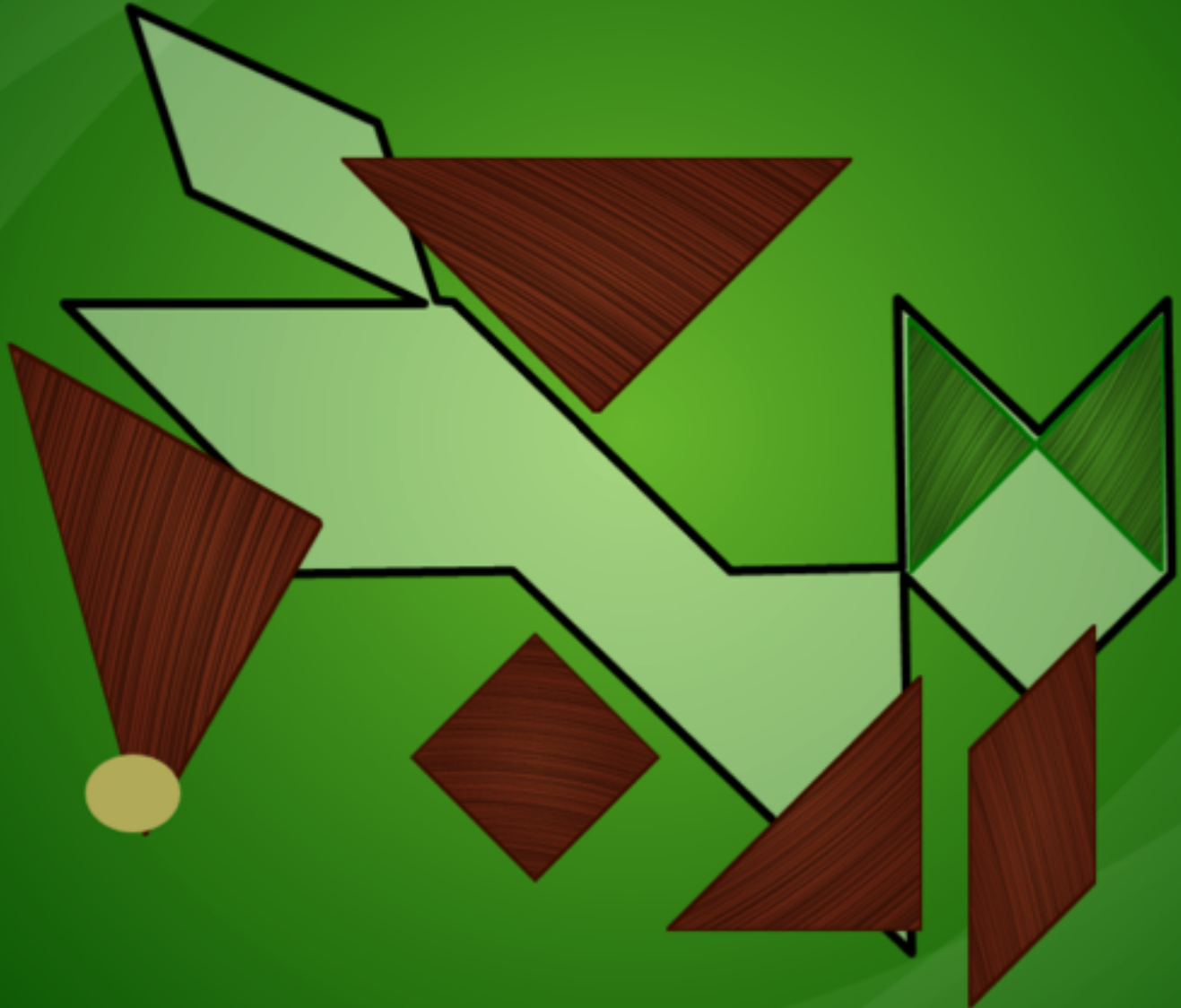
# Kids

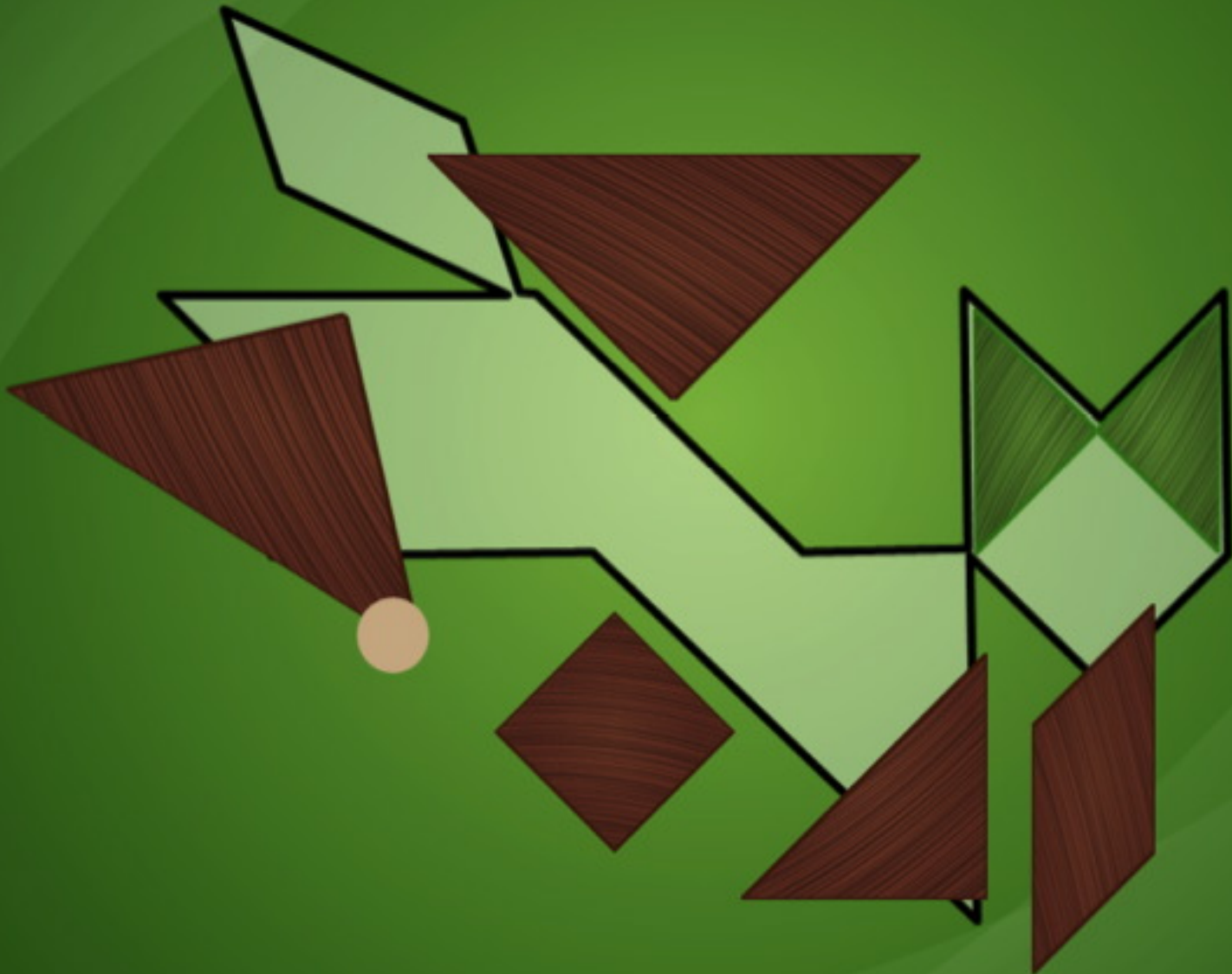


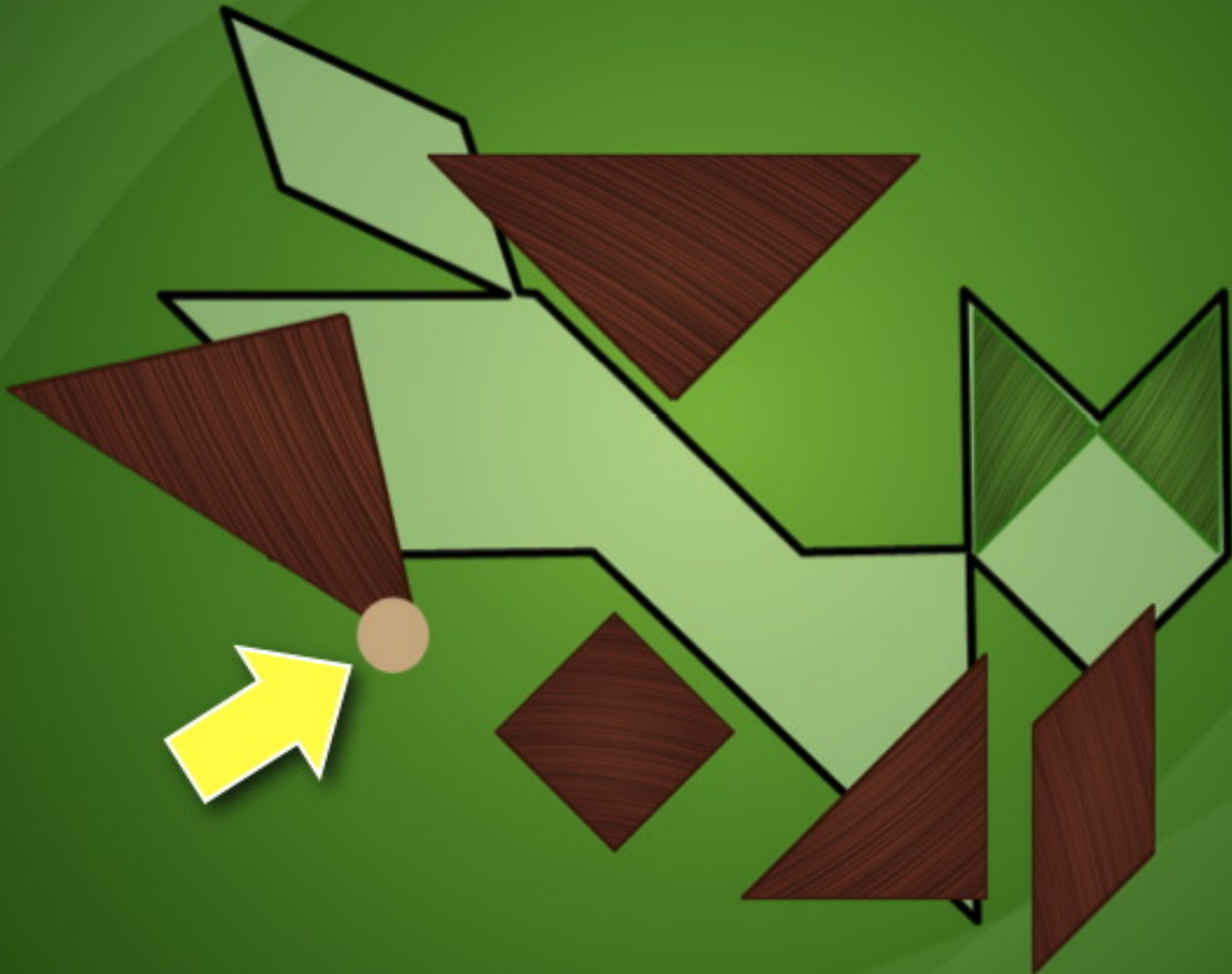
# Crossing













**when rubber hits the sky**

creativity is easy, discipline is hard.