

Simple *physical* models made of soft, low cost, easy-to-work materials

Sketch models: what should we do?

I need to make something?
OK, I'll make something!



Sketch models: what should we do?

step 1: what is the question?

articulate: what are we uncertain about?

definition: what is the idea?

feasibility: does core technology exist and do we understand it?

user need: do we understand the user and our value proposition?

market: who is our customer and how interested are they?

scope: do we have the needed resources and skills?

Sketch models: what should we do?

step 1: what is the question?

prioritize: which questions do we answer first?



Pugh chart

level of uncertainty

criticality to viability

learning outcomes

Sketch models: what should we do?

step 2: what type of model?

explore: what model foci relate to the question?

form: focus on shape embodiment

scale: focus on properties such as size or mass

visualization: focus on communication

operational principles: focus on tech and physical behavior

system configuration: focus on “what are the bits?”

integration: focus on “do these bits play well together?”

interaction: a focus on the use model

usability: a focus on user understanding

experience: a focus on the user’s feeling

Sketch models

step 2: what type of model?

select: what type of model?

based on question and focus

looks-like: fidelity in appearance

works-like: fidelity in behavior

may be physical or digital!

lowest fidelity possible to resolve the question!

Sketch models: what should we do?

example

electric scooter

concern: product definition

model focus: scale, usability

type: works-like (kinematics)

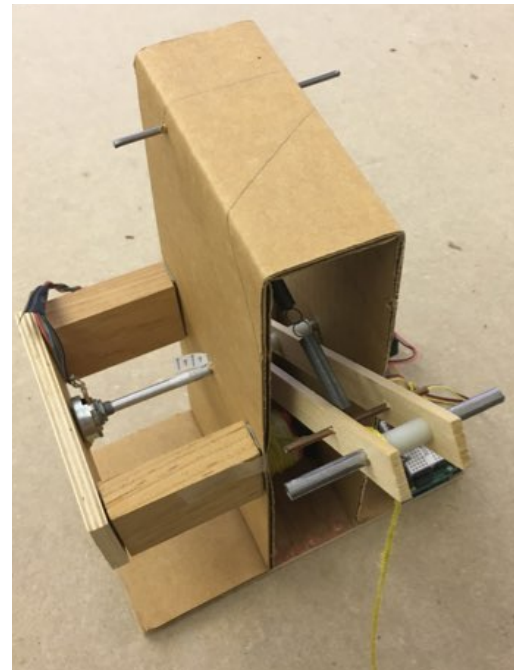


helicopter lift

concern: product definition

model focus: visualization, operation

type: works-like (operating principle)



Sketch models: what should we do?

articulate uncertainties as questions

prioritize questions

explore relevant model focus categories

select model type