Prototyping Interactive Systems
DES 206

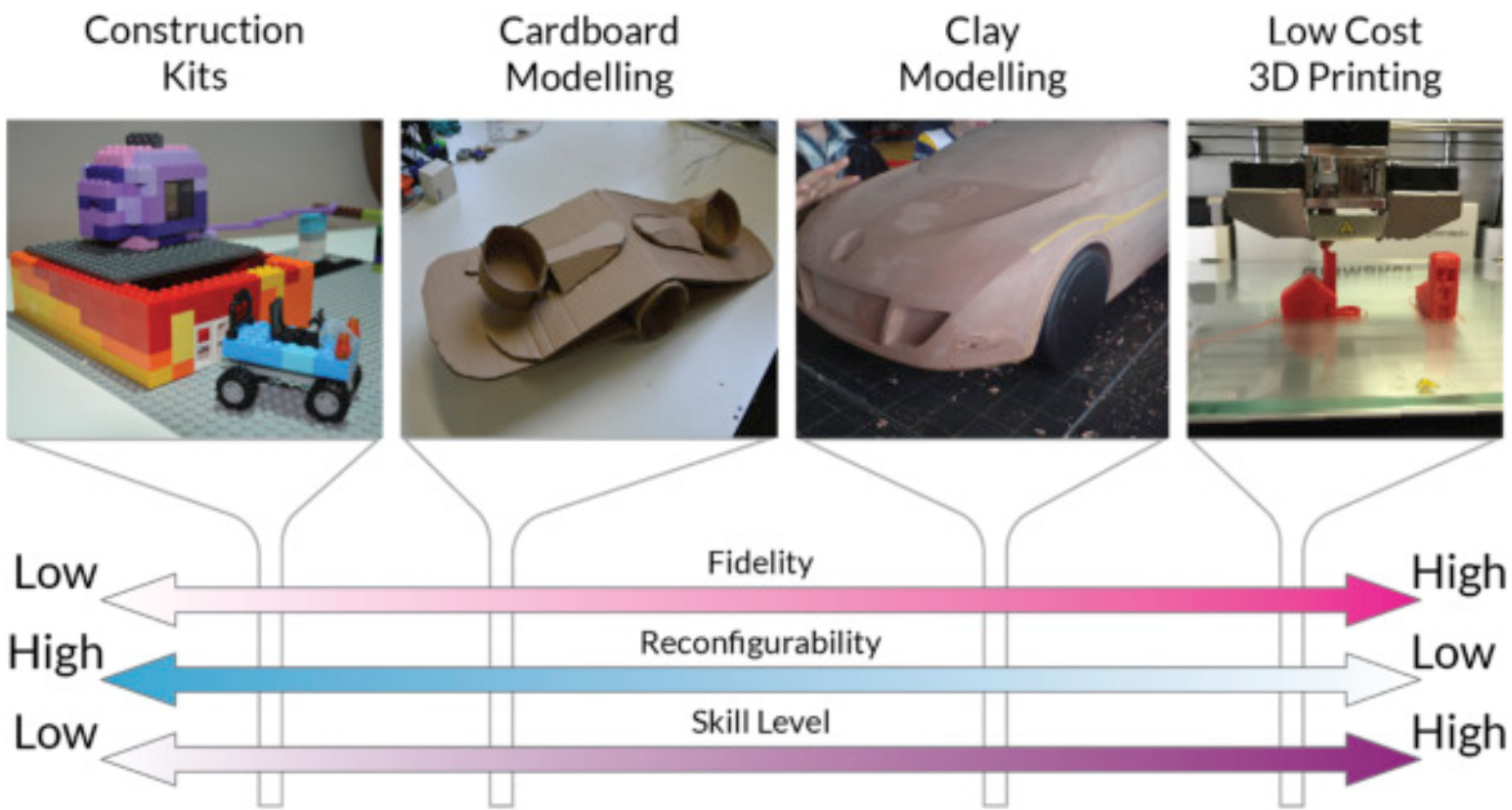
13-02-2024

Richa Gupta
Abhijit Mishra

INDRAPRASTHA INSTITUTE *of*
INFORMATION TECHNOLOGY
DELHI

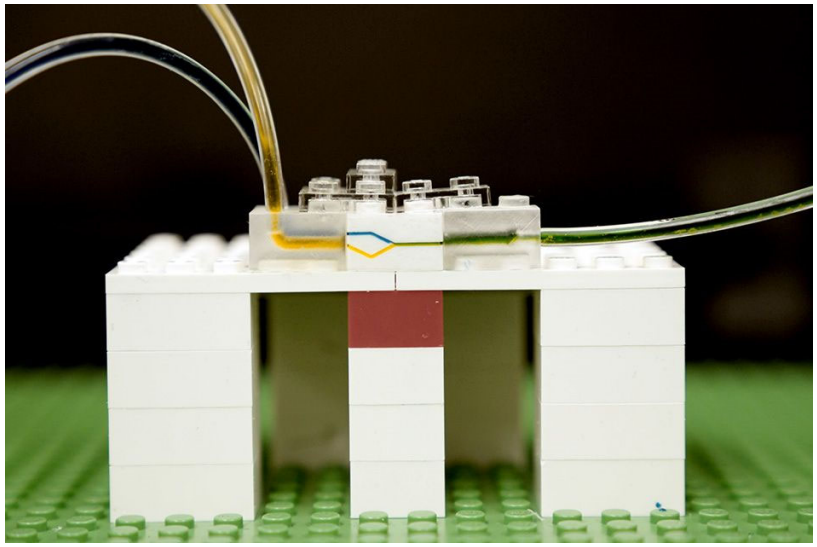
Prototyping Methods

Prototyping Methods



Building Blocks

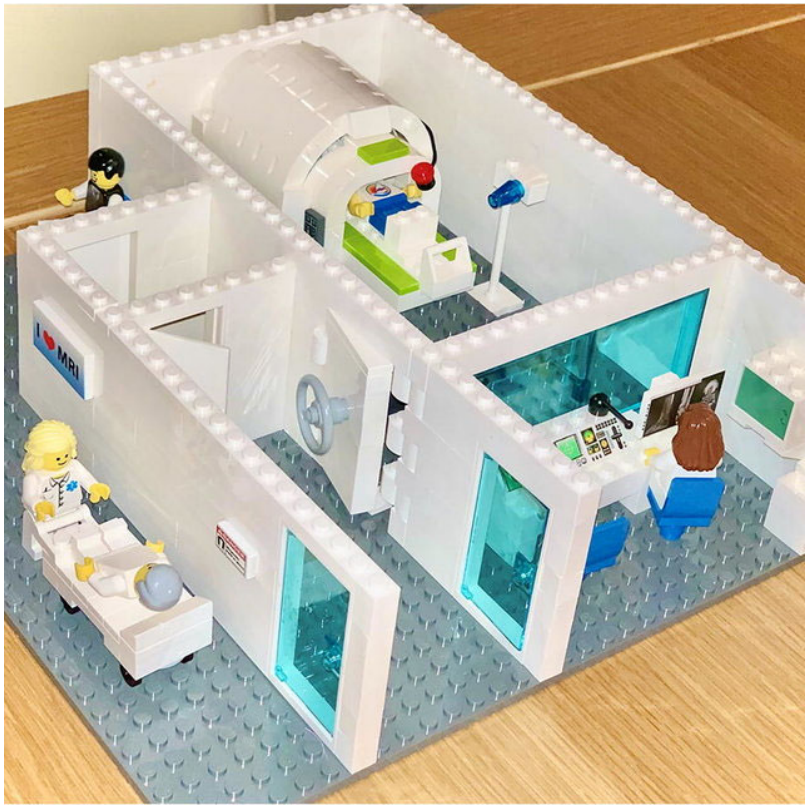
- Building Prototypes with LEGO is fun, quick and easy
- They are easier to dismantle and Tweak
- Why to wait for multiple hours for a 3D Printer to print your Physical Product
- Once the design gets Validated by User, you may move ahead with 3D printing
- Even IDEO has used LEGO to create prototype of complex insulin injection device



Scientists at MIT Have used these precise and consistent Lego bricks to create very precise scientific systems like microfluid pump and sorter using basic

In walk through experience design

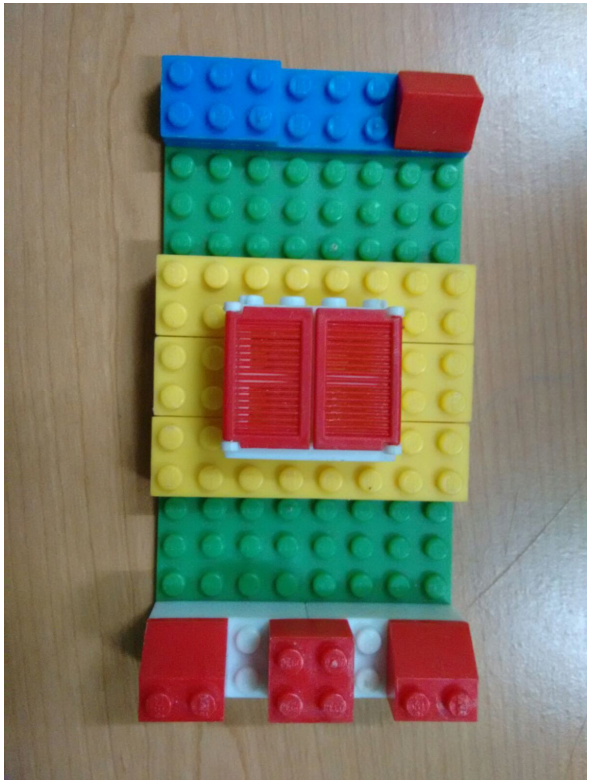
Event design, walk through experience design for exhibits or museums or hospitals



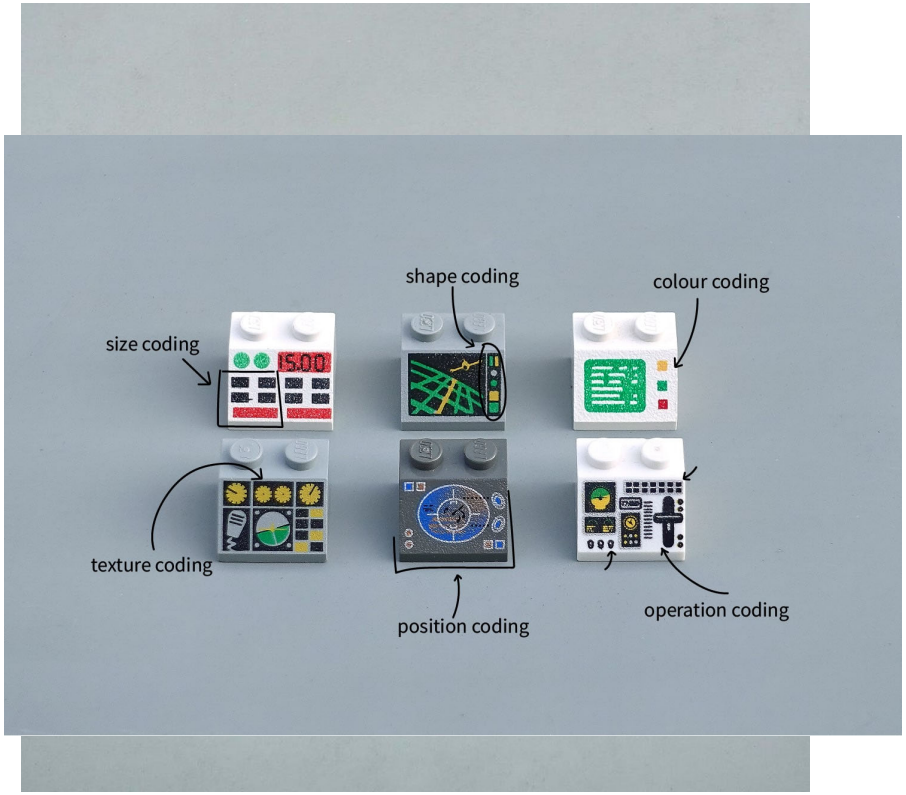
In Robotics

Arduino / PLC microcontroller based kits

In interface design

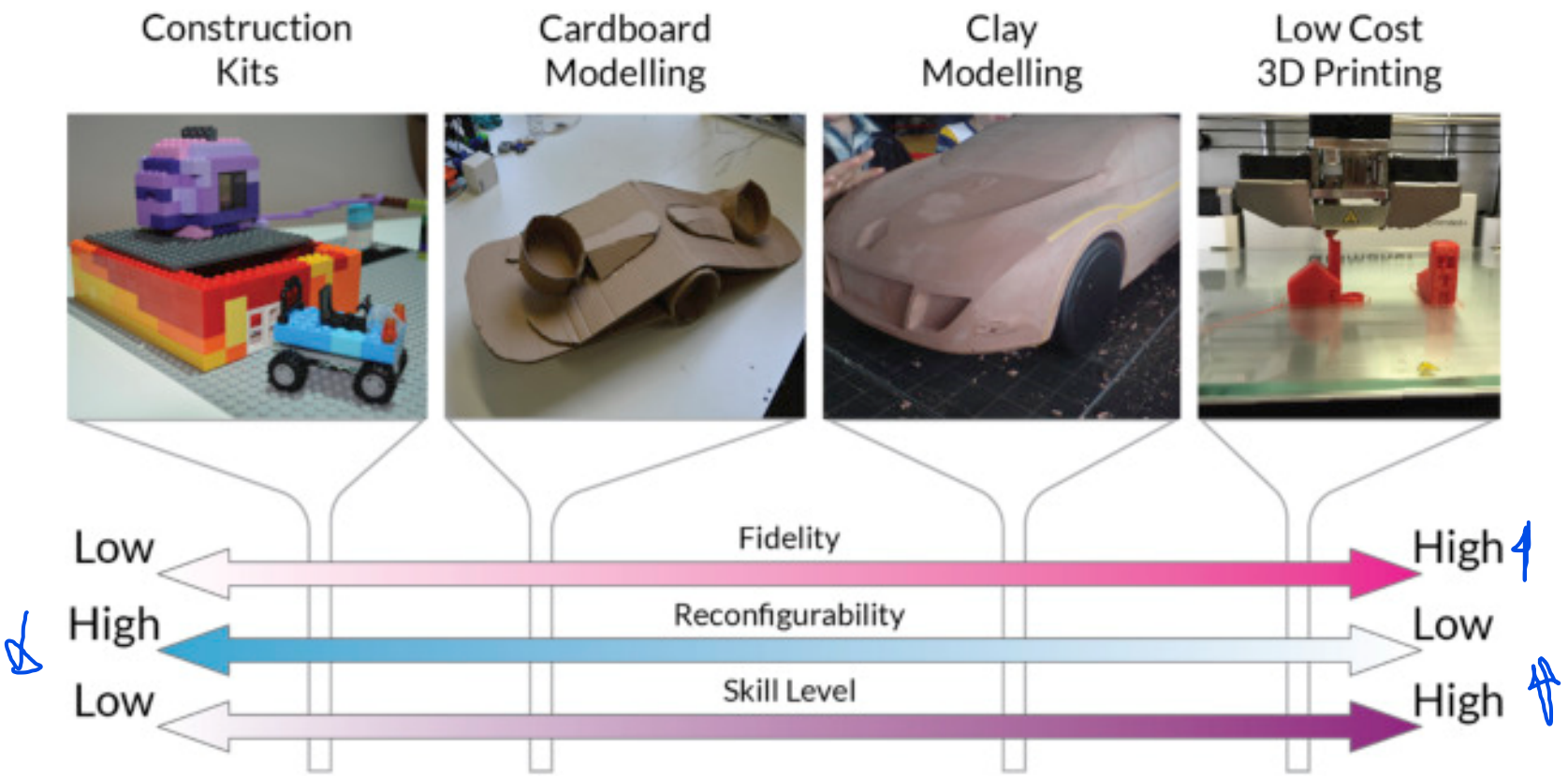


Digital interfaces



Physical interfaces

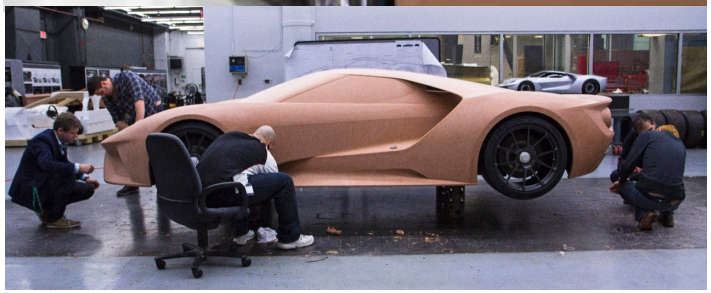
Prototyping Methods



Clay modelling

- Most common Lo-fi prototyping method
- It can be done using easily available and cheap materials
- It gives tangible form to an idea where functionalities can be tested
- Exploring tangible form

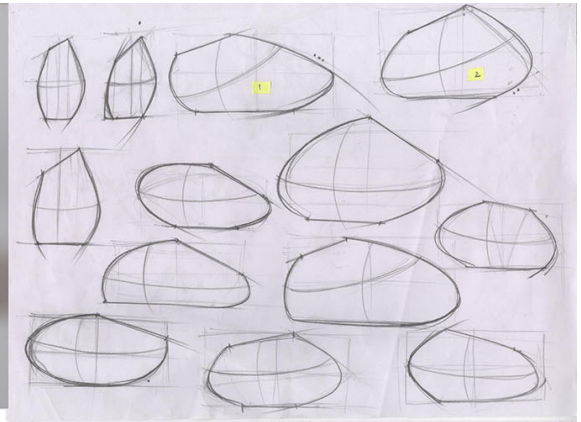
Industrial / Polymer Clay

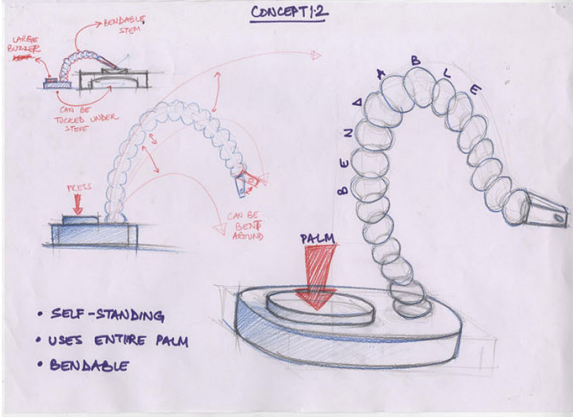


Sculpting

- Foam sculpting
- Various densities available
- Low density foam - Thermocol

Foam sculpted models

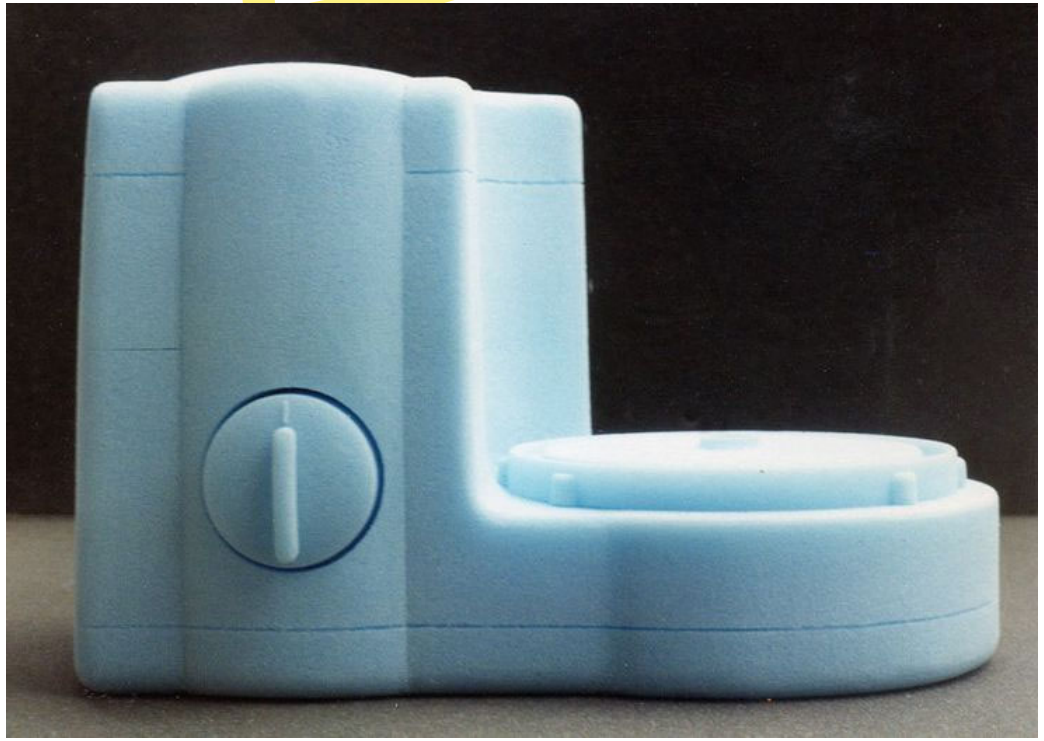




Thermocol Sculpting

Thermocol Art

High Density foam



Polymer Clay (play doh)

Epoxy clay (M Seal)

Epoxy Clay tutorial - Abhijit