

Modelling in Product Design



@ProductDesignSwanseaCollegeofArtUWTSD
#discoverproductdesign
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30.09.19 | 01.10.19

National Survey Outcomes

1st in the UK for
Fashion & Textiles

(Guardian League Table 2020)

7th in the UK for
Design & Crafts

(Guardian League Table 2020)

8th in the UK for
Art

(Guardian League Table 2020)

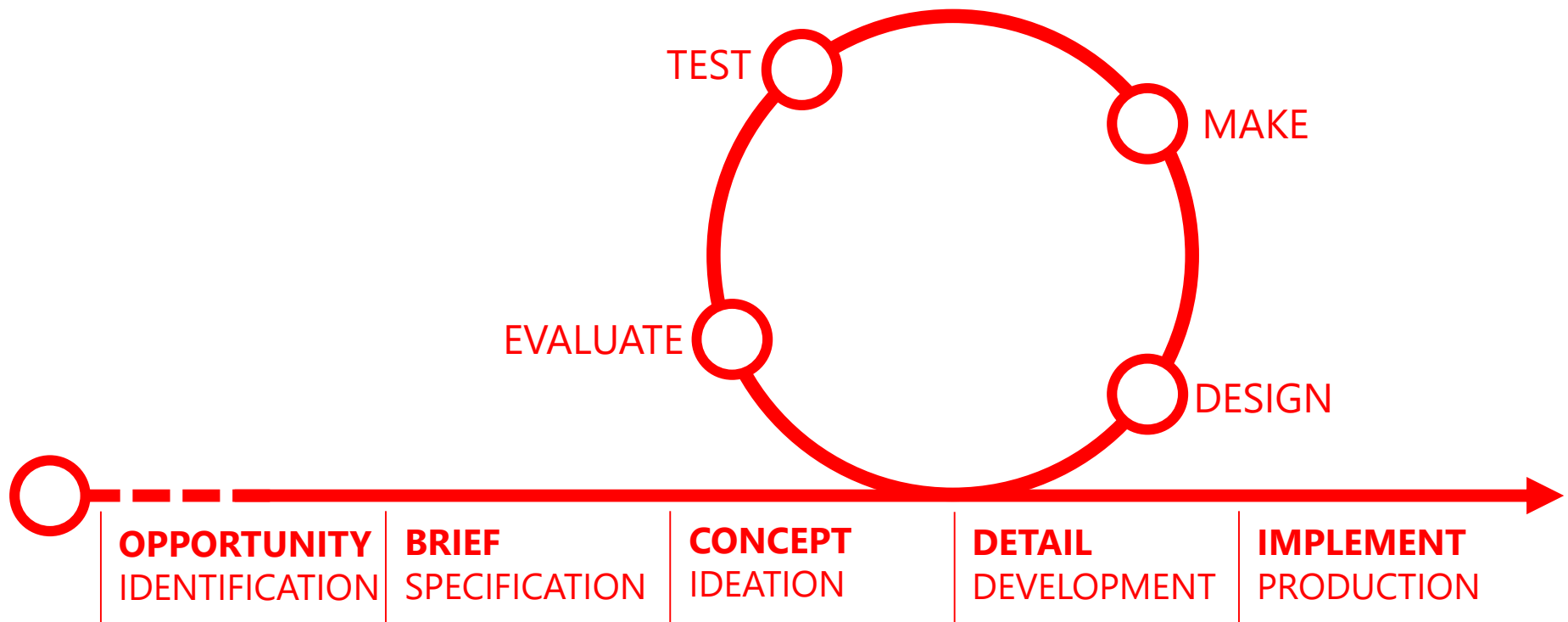


Modelling in Product Design

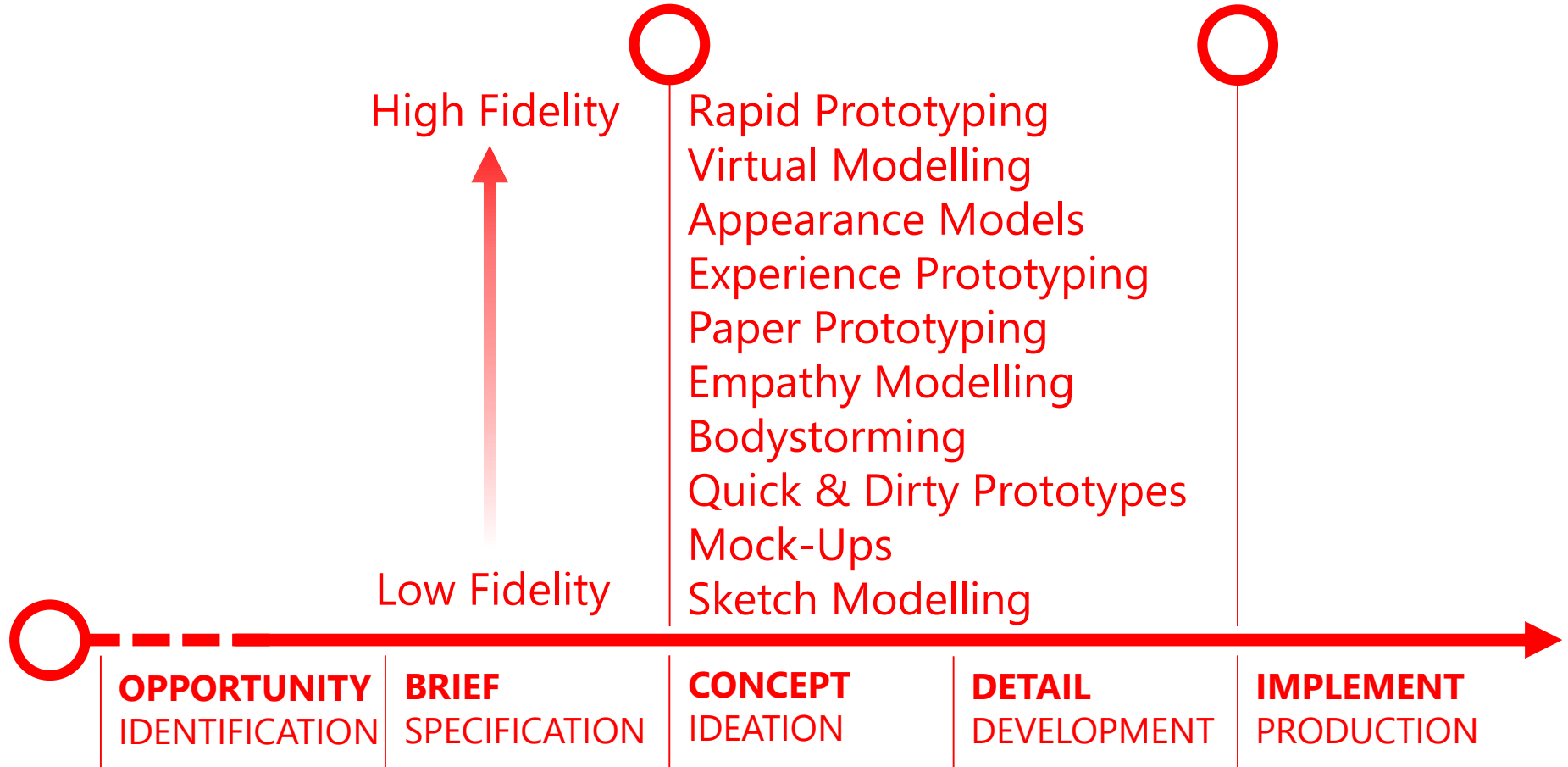


Product Design = iterative research process

Modelling = simulation *'looks like'* or *'works like'*

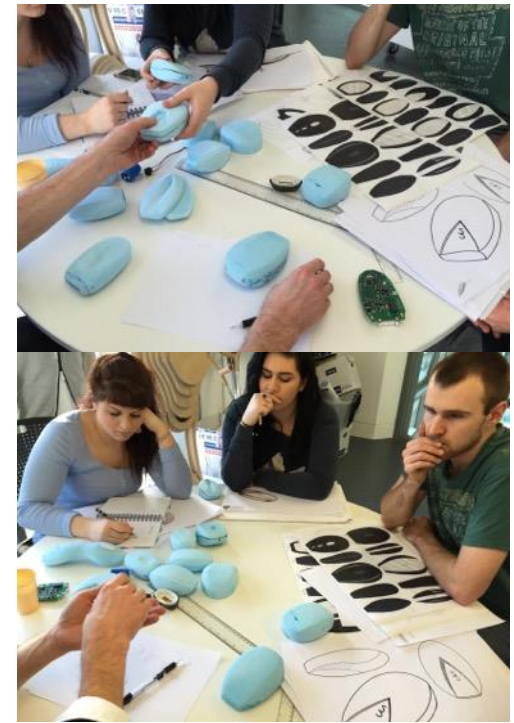
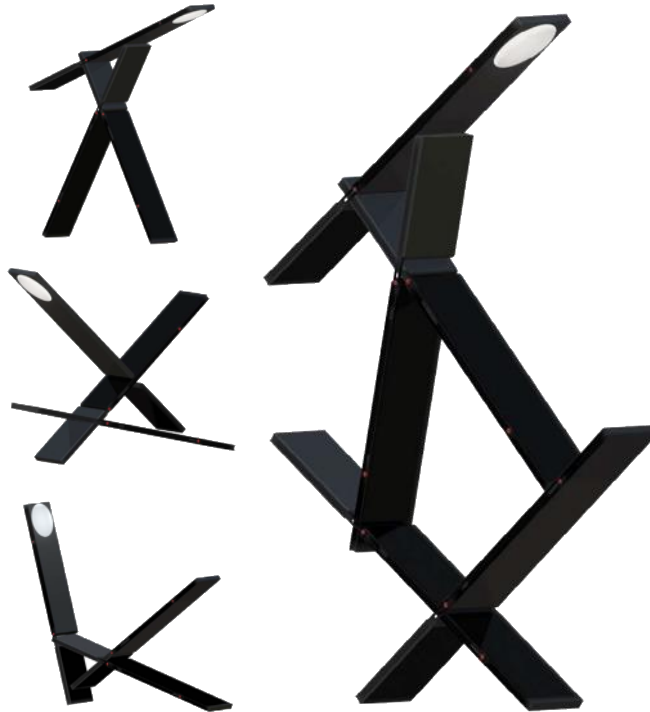
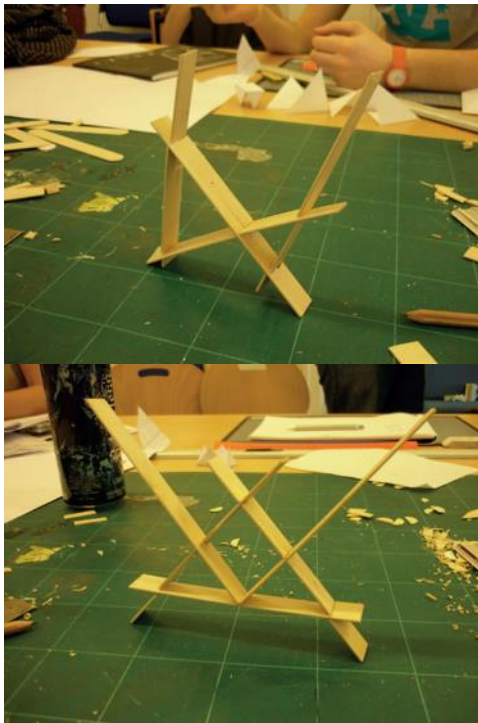


Modelling Types:



Sketch Modelling LoFi

- LIFE SIZE or SCALE
- 3D EXPLORATION OF EMBRYONIC IDEAS
- EVALUATE AESTHETICS | ERGONOMICS | FUNCTION | USABILITY | CONFIGURATION
- EXPLORE IDEAS, PROBLEM SOLVE AND CAPTURE IDEATION PHASE



Mock-Ups LoFi

- LIFE SIZE
- PRACTICAL TESTING OF IDEAS
- EVALUATE FORM | FUNCTION | ERGONOMICS
- PROOF OF PRINCIPLE [PoP]



Quick & Dirty Prototyping LoFi

- LIFE SIZE
- COMMUNICATION OF IDEAS AND CONCEPTS WITH OTHERS
- EVALUATE BASIC FORMAT | USE
- ROUGH & READY TO SPEED UP DESIGN PROCESS



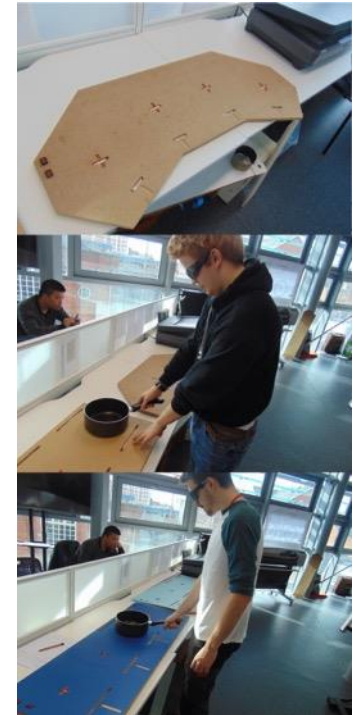
Bodystorming LoFi

- ENACTMENT
- SUPPORT IDEATION AND EMPATHY MODELLING
- EVALUATE SOCIAL & SPATIAL SCENARIOS | BEHAVIOUR | USER EXPERIENCE (UX)
- LOW COST 'PROPS'



Empathy Modelling LoFi

- LIFE LIKE or ACTUAL
- SIMULATE USER CAPABILITIES (PHYSICAL or COGNITIVE)
- EVALUATE USABILITY | USER EXPERIENCE (UX)
- INCLUSIVE DESIGN – OLDER or DISABLED USERS



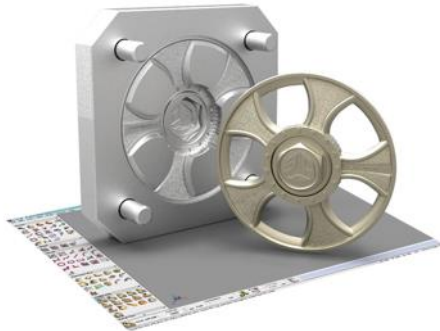
Virtual Modelling ^{HiFi}

- LIFE SIZE
- ACCURATE REPRESENTATION OF AESTHETIC AND FUNCTIONAL FEATURES
- EVALUATE APPEARANCE | PERFORMANCE | MANUFACTURING
- RENDER, ANIMATE, VR, CHECK INTERFERENCE, MOULD/KINEMATIC/HEAT/STRESS ANALYSIS



Rapid Prototyping HiFi

- LIFE SIZE
- CONCEPT MODELLING AND ACCURATE AESTHETIC AND FUNCTIONAL PROTOTYPES
- EVALUATE ALL ASPECTS OF DESIGN SPECIFICATION
- DIVERSE RANGE OF PROCESSES AND MATERIALS / DESKTOP > INDUSTRIAL



Appearance Models HiFi

- LIFE SIZE or SCALE
- SIMULATE AESTHETIC QUALITIES (NON-FUNCTIONING)
- EVALUATE AESTHETICS | FORM | FEEL | USER RESPONSE
- COMMUNICATION | MARKETING | EXHIBITION



Appearance Models HiFi

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"fail often to succeed sooner"

David Kelley IDEO

- KEIRA GWYNNE – 'SCALLOP' by R82



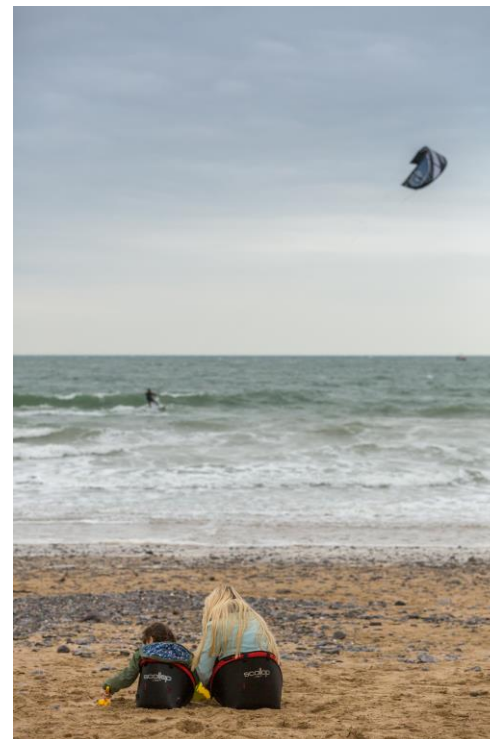
"fail often to succeed sooner" David Kelley IDEO

○ KEIRA GWYNNE – 'SCALLOP' by R82



"fail often to succeed sooner" David Kelley IDEO

- KEIRA GWYNNE – 'SCALLOP' by R82



Experience Modelling LoFi > HiFi

- TESTING USER EXPERIENCE OF ENGAGEMENT WITH PRODUCT | SERVICE
- EVALUATE INTERACTION | USABILITY | USER EXPERIENCE (UX)
- UNCOVER UN-ANTICIPATED ISSUES OR USER NEEDS



SA1 Swansea Waterfront Innovation Quarter

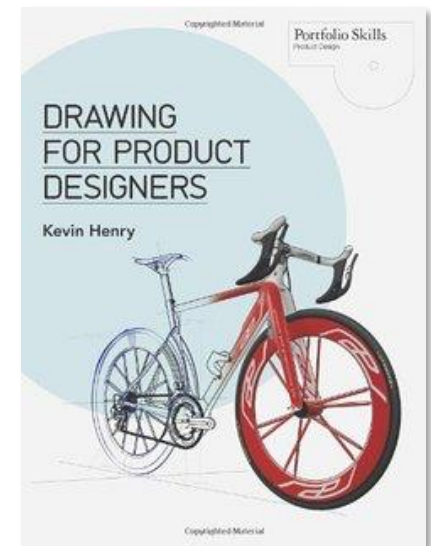
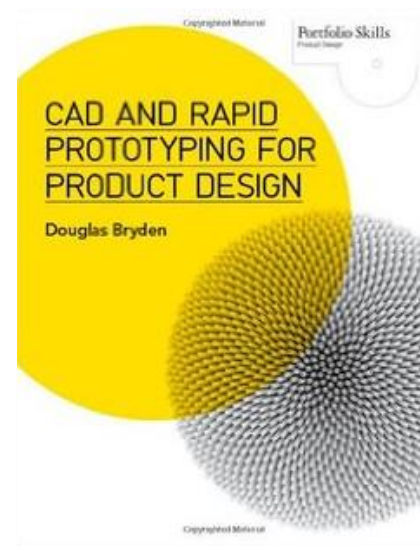
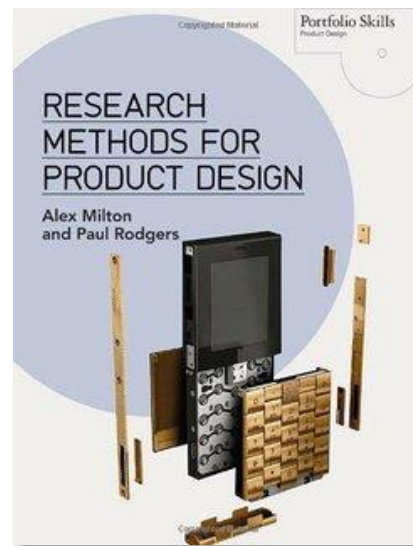
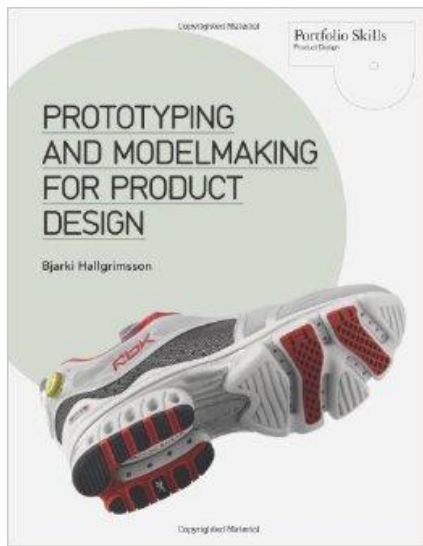


Swansea Business Campus

Swansea Arts Quarter

Useful references

- makezine.com
- instructables.com
- PORTFOLIO SKILLS: Product Design [published by LaurenceKing.com / buy on Amazon.com]



Swansea Open Day Dates

- 05 October 2019
- 30 November 2019
- 08 February 2020
- 27 June 2020