

Prototipagem

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Prototipagem

Projectos de “software”

<https://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-831-user-interface-design-and-implementation-spring-2011/syllabus/>

Projectos de “hardware”

<https://ocw.mit.edu/courses/sloan-school-of-management/15-783j-product-design-and-development-spring-2006/syllabus/>

Projectos de “software”

Validação inicial de mercado

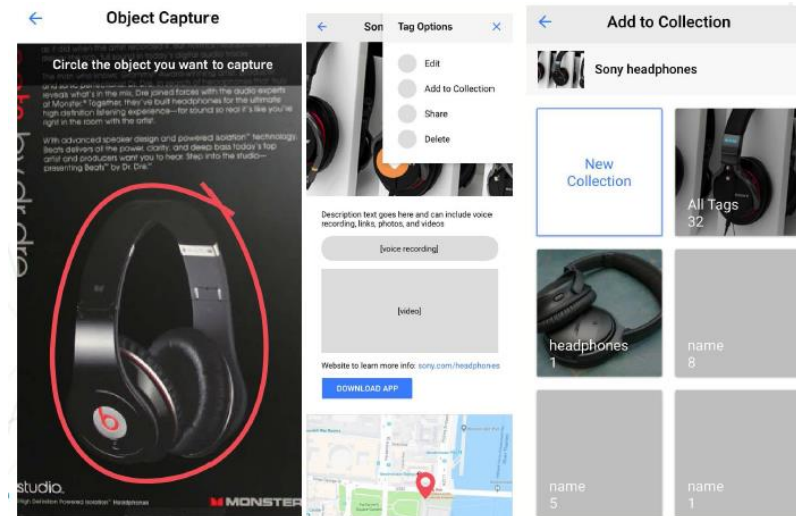
Especificação de requisitos

Desenho de “wireframes” em “papel”

Implementação do primeiro protótipo baseado nos “wireframes”

Teste de usabilidade

Processo iterativo até obter uma versão funcional



Projectos de “software”

Prototipagem UI/UX

Square Space

<https://www.squarespace.com/>

Sketch

<https://www.sketchapp.com/>

Figma

<https://www.figma.com/>

Desenvolvimento de “software”

GitHub para estudantes

<https://education.github.com/pack> (incluindo Atom, AWS, Cart, Stripe, Unreal)

Ajuda

Amazon Mechanical Turk

<https://www.mturk.com/>

Projectos de “hardware”

<https://www.codementor.io/blog/MVP-product-market-fit-2lvrzn68b2>

Validação do mercado

Prova de conceito

Protótipo

“Minimum Viable Product”
(MVP)



Projectos de “hardware”

Desenvolvimento de protótipos físicos

<https://predictabledesigns.com/how-to-prototype-hardware-product/>

Arduino

<https://www.arduino.cc/>

Raspberry Pi

<https://www.raspberrypi.org/>

Sensores

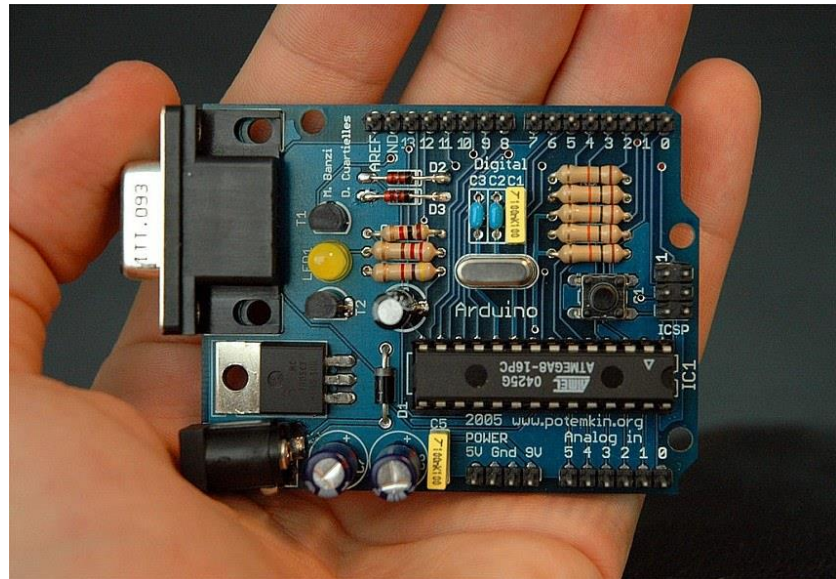
<https://www.sparkfun.com/>

Blender (modelação 3D)

<https://www.blender.org/>

3D Printing

<https://www.3dhubs.com/>



Projectos de “hardware”

Ajuda

Engenharia mecânica

Grabcad

<https://grabcad.com/>

Engenharia electrotécnica

Instructables

<https://www.instructables.com/>

“Links” adicionais

[Comparison of software prototyping tools](#)

<https://docs.particle.io/guide/how-to-build-a-product/intro/>

[Lean startup](#)

[Bresslergroup](#) (laboratório de inovação para desenvolvimento de produto)

[Highway1](#) (“hardware startup accelerator”)

[Altitude](#) (“rapid prototyping”)

Entrevistas

<https://www.youtube.com/watch?v=Xj8Zu8wuCNs>

“procurement” por Francisco Mendes (Hardware City)

<https://www.youtube.com/watch?v=CQYfz8Zf1ik>

prototipagem por Francisco Mendes e Sofia Almeida (Line Health)

Leituras adicionais

David Wallace, Toy Product Design, 2008

(<https://ocw.mit.edu/courses/mechanical-engineering/2-00b-toy-product-design-spring-2008/index.htm>)

Neil Gershenfeld, How to Make Almost Anything, 2012

(<http://ocw.mit.edu/courses/media-arts-and-sciences/mas-863-how-to-make-almost-anything-fall-2002/>)

Olivier de Wek, Engineering Design and Rapid Prototyping,

(<https://ocw.mit.edu/courses/aeronautics-and-astronautics/16-810-engineering-design-and-rapid-prototyping-january-iap-2007/index.htm>)

Ted Selker, Industrial Design: A Cognitive Approach, 2003

(<https://ocw.mit.edu/courses/media-arts-and-sciences/mas-742-industrial-design-intelligence-a-cognitive-approach-to-engineering-fall-2003/index.htm>)