

a better world | un monde meilleur | un mundo mejor | عالم أفضل | лучший мир | 一个更美好的世界 | un mondo migliore | より良い世界 | eine bessere welt | a better world | un monde meilleur | un mundo mejor | عالم أفضل | лучший мир | 一个更美好的世界 | un mondo migliore | より良い世界 | eine bessere welt | a better world | un monde meilleur | un mundo mejor | عالم أفضل | лучший мир | 一个更美好的世界 | un mondo migliore | より良い世界 | eine bessere welt | a better world | un monde meilleur | un mundo mejor | عالم أفضل | лучший мир | 一个更美好的世界 | un mondo migliore | より良い世界 | eine bessere welt |

a better world



UNIS

united nations international school



UNITED NATIONS INTERNATIONAL SCHOOL

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Today's Workshop

- 1) What and why *make*?
- 2) CoLaboratory @ UNIS
- 3) Resources
- 4) Hands on Activity

how can we make this the best 7 hours of a kids life?

how do we make conditions for our students to be creative?

how do we create engagement?

I STRONGLY feel that digital fabrication married with design thinking is the way that we can to answer some of these questions.

What does a maker look like?

A word cloud of maker-related terms in various colors and orientations. The words include: Persistence, Resilience, Enthusiasm, STEAM, Creative-Play, Innovation, Collaboration, Curiosity, Engagement, Vision, Tools, Cut, Make, Engineering, Risks, Reflect, Courage, Failure, Passion, Bliss, Tinker, and Persistence.

Persistence
Resilience
Enthusiasm
STEAM
Creative-Play
Innovation
Collaboration
Curiosity
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Vision
Tools
Cut
Make
Engineering
Risks
Reflect
Courage
Failure
Passion
Bliss
Tinker
Persistence

Core “making” principals:

- 1) no “expert” - mutual learning experience
- 2) part of a community that shares
- 3) celebration of process, abandonment, engagement
- 4) open ended outcomes
- 5) flexible frameworks for participation
- 6) student driven and chaos is good!

Makers:

- Aren't afraid to experiment and try ideas that may not work out as planned.
- Share their knowledge and skills with others.
- Have a sense of ownership over their learning.
- Participate in and do not just absorb their education.
- Are willing to make friends with failure.
- Have patience.

Makers have:

- **Curiosity** - explore the unknown to discover the amazing
- **Enthusiasm** - relentless pursuit of knowledge and excitement
- **Creativity** - imaginative approaches that turn dreams into realities
- **Courage** - take bold steps that others will follow
- **Vision** - chart an extraordinary path forward

COLABORATORY

A **safe space** for students to explore their creative talents, **build confidence**, and **make a better world** through the use of the design process.



Layout



Working Space

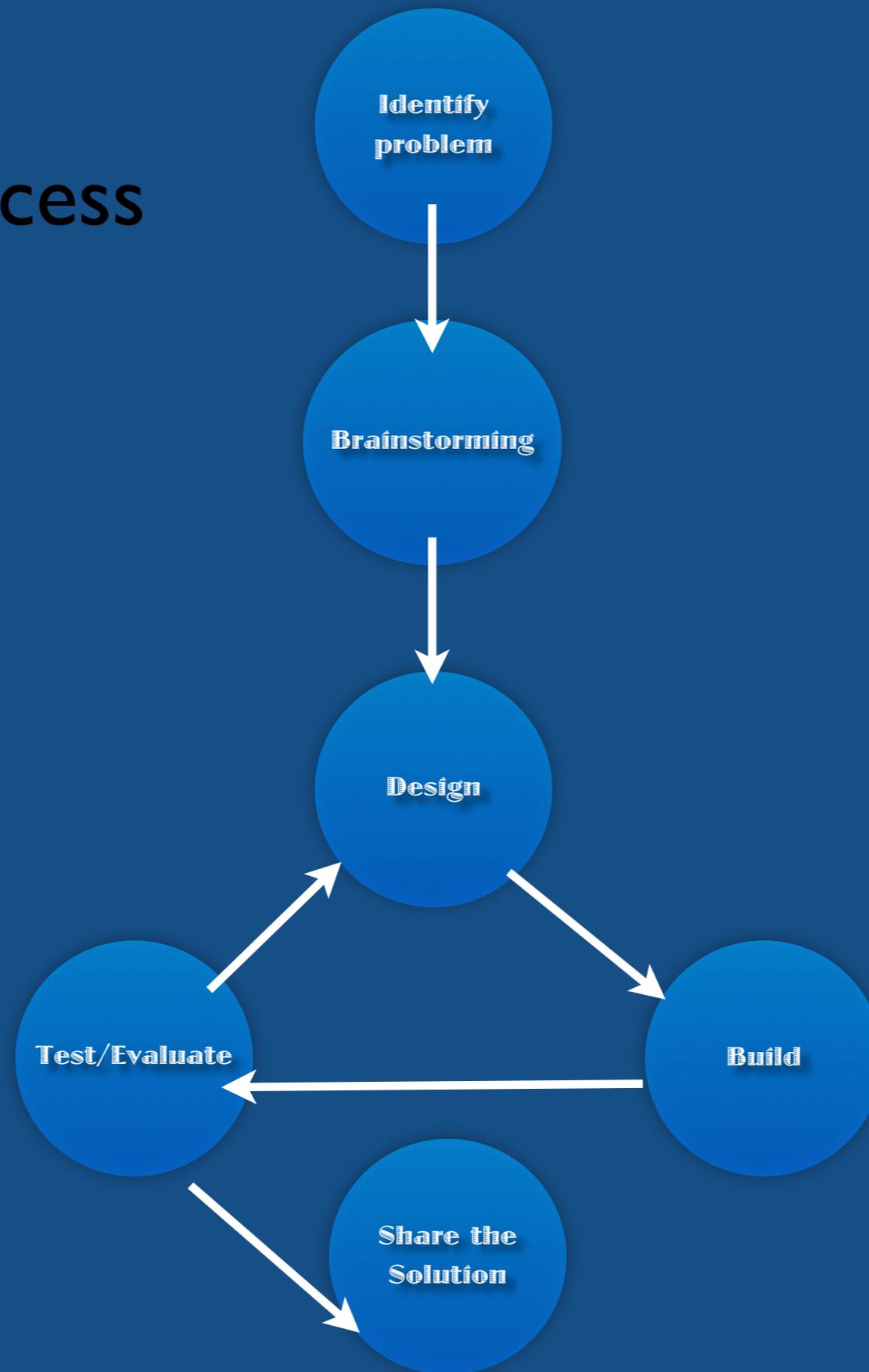


Storage Wall



Tool Wall

Design Process



5 Creative Computing Strands

Digital Citizenship

Robotics

Programming

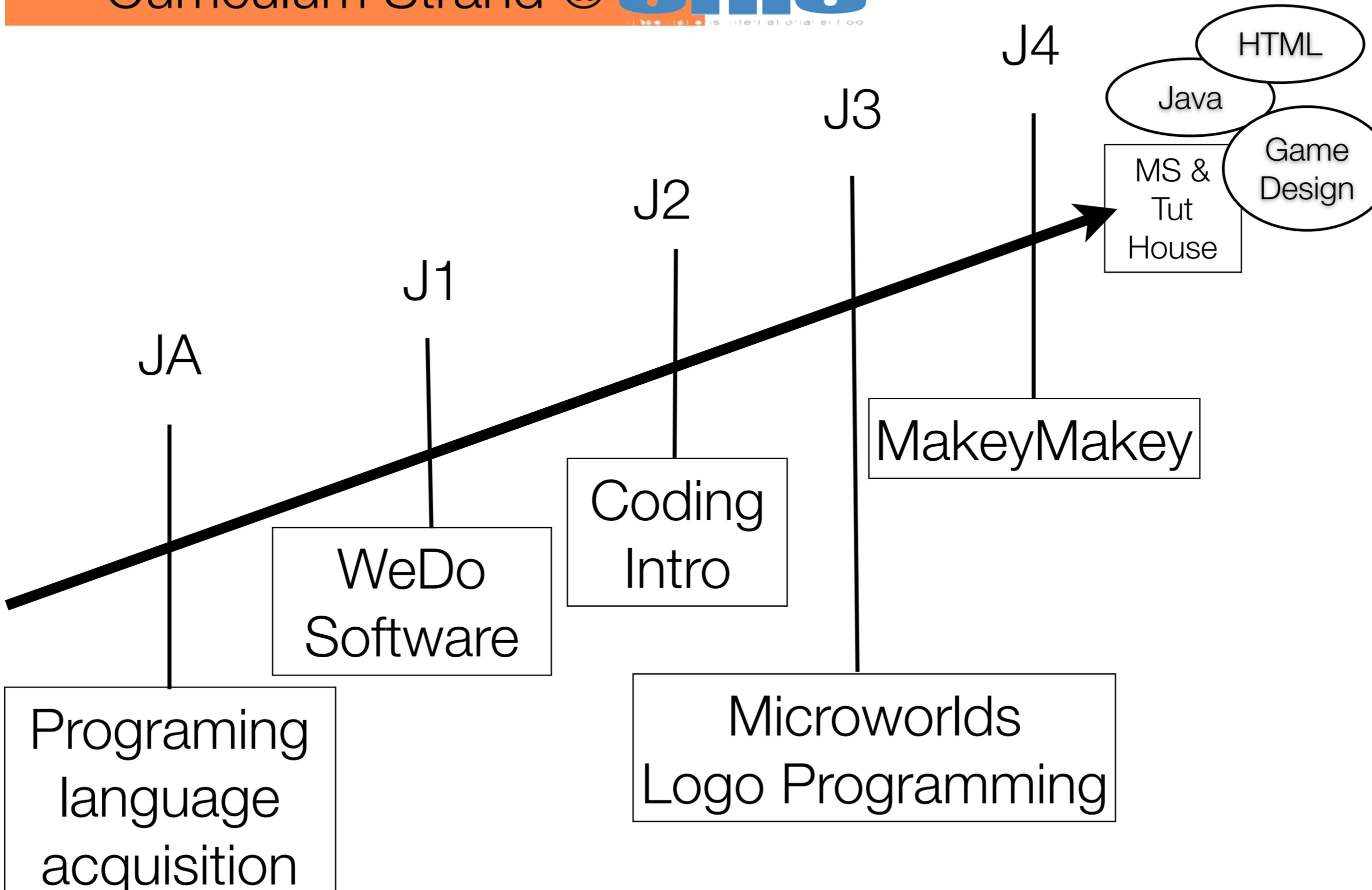
Design

Engineering

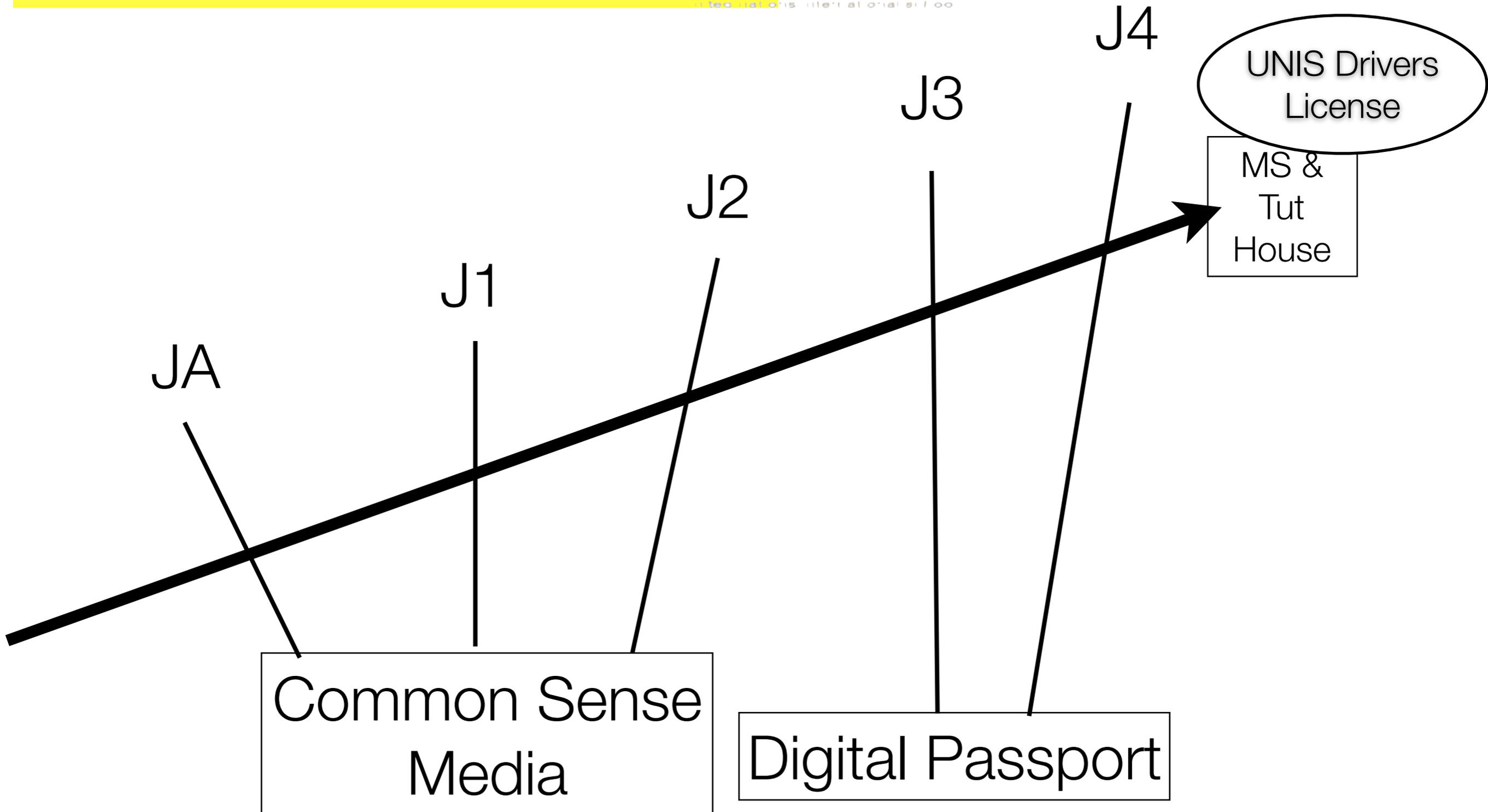
what to measure/assess:

- engagement (body language)
- confidence (participation, leadership)
- productivity
- iteration and failure
- autonomy

Programming Curriculum Strand @ unis

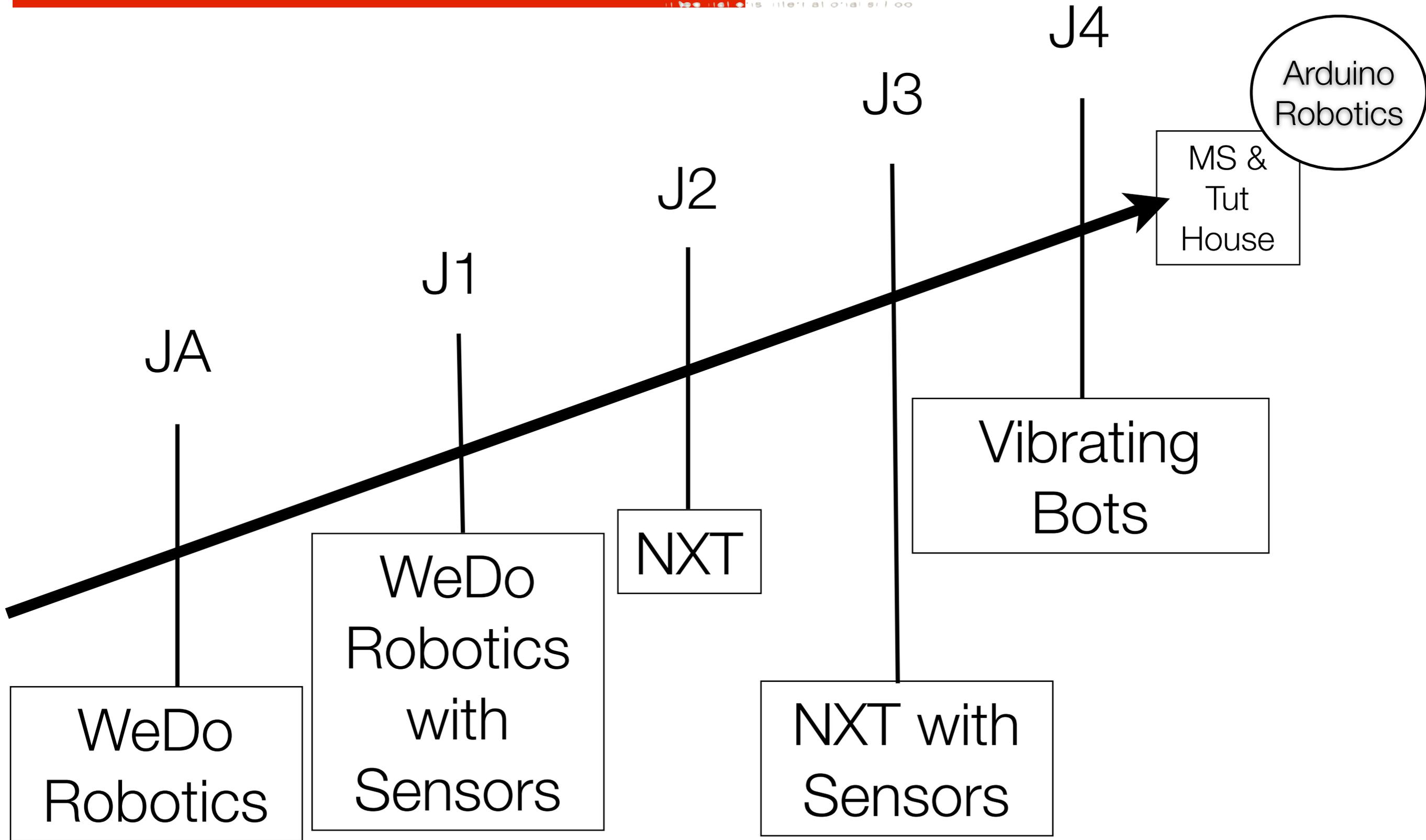


Digital Citizenship Curriculum Strand @

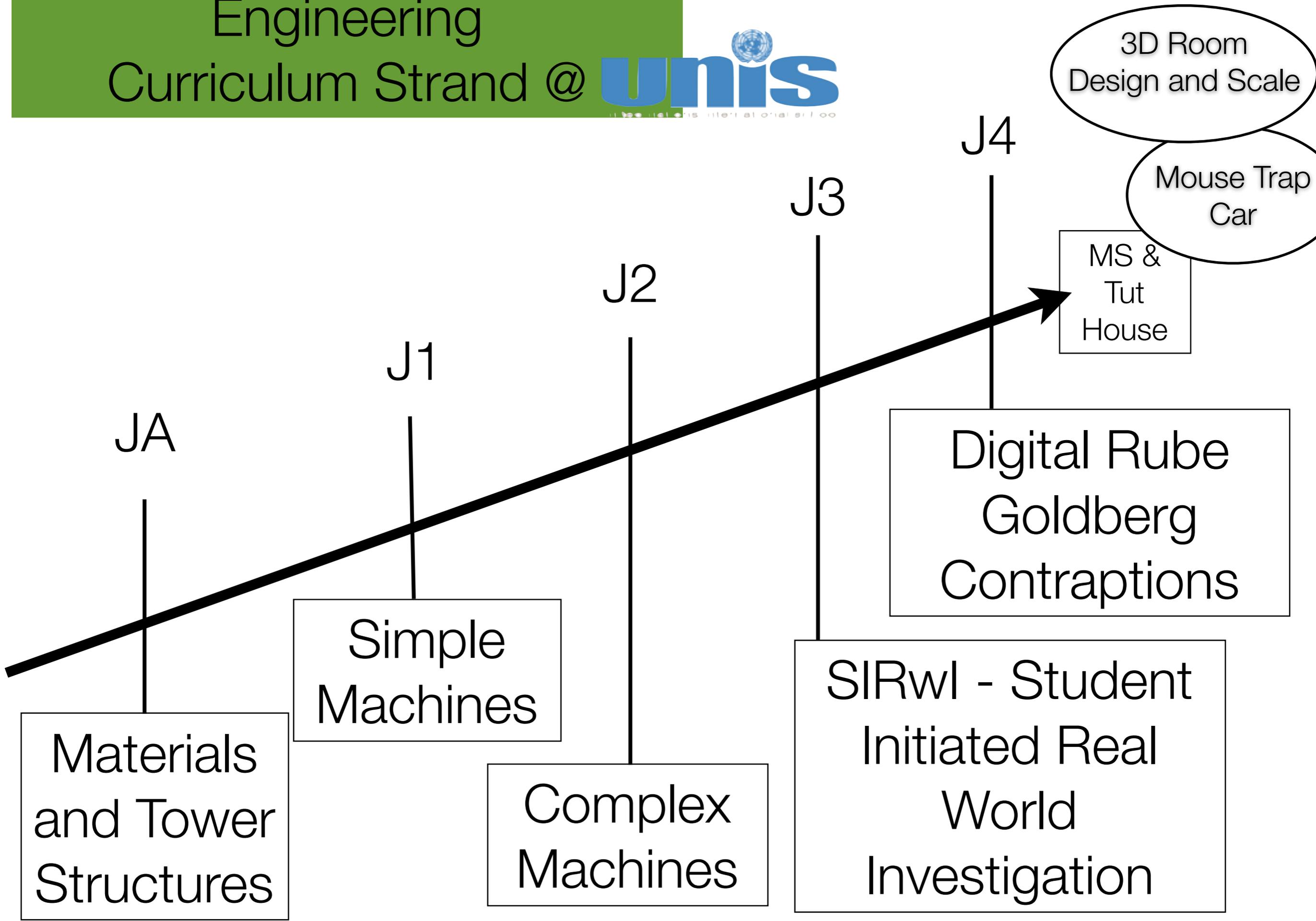


Robotics

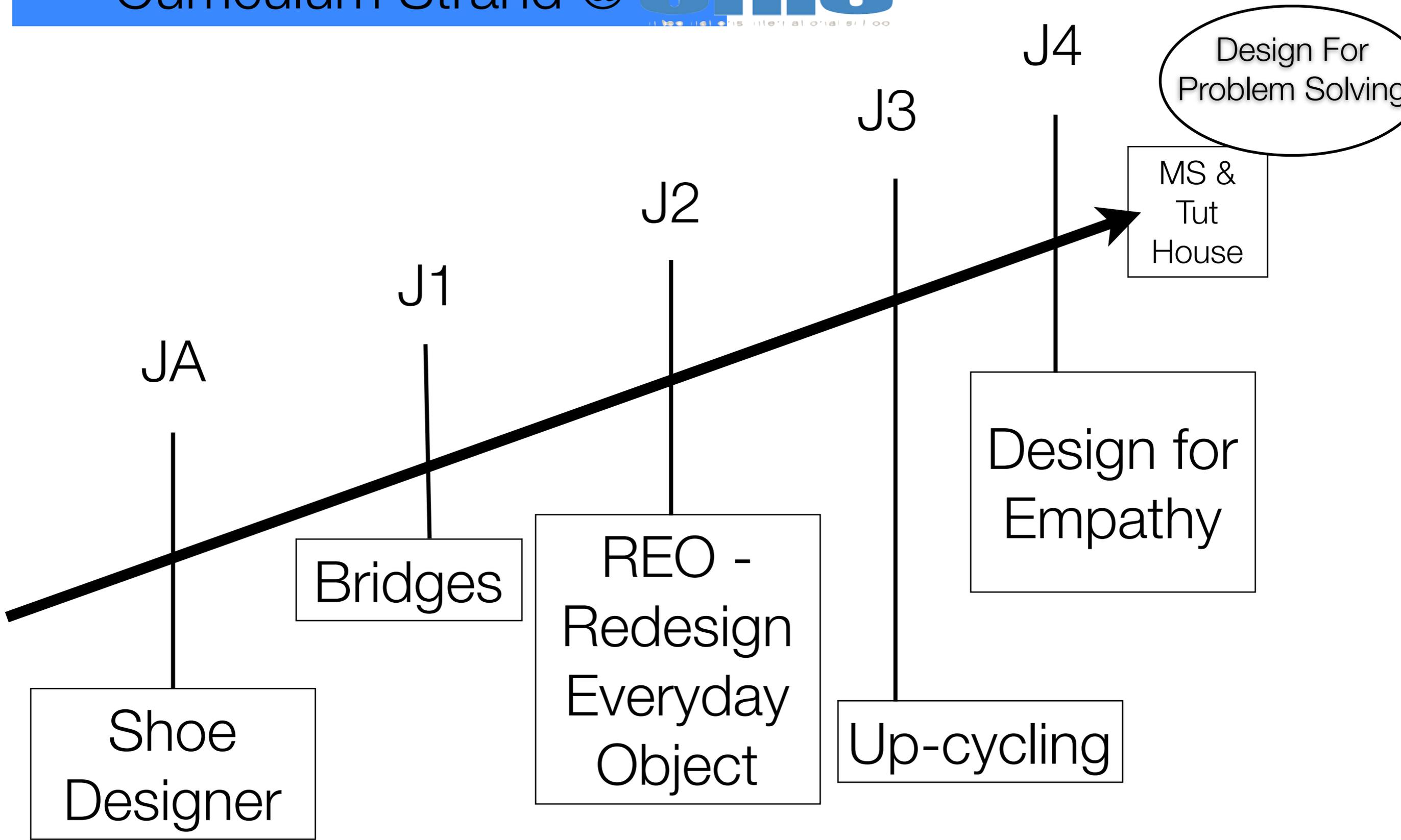
Curriculum Strand @



Engineering Curriculum Strand @



Design Curriculum Strand @





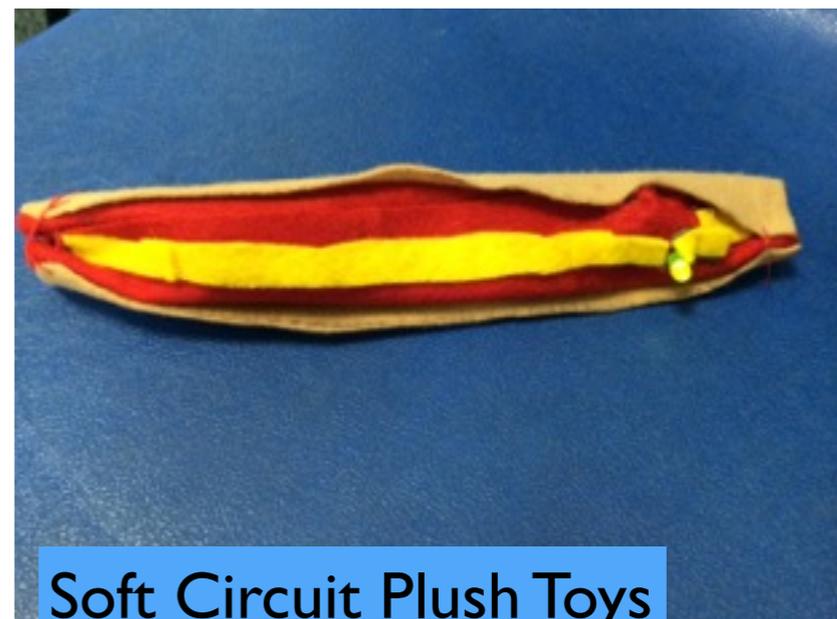
Vibrating Brush Bots



Digital Rube Goldberg Machine Using WeDo sensors



Design for Empathy using MakeyMakey



Soft Circuit Plush Toys

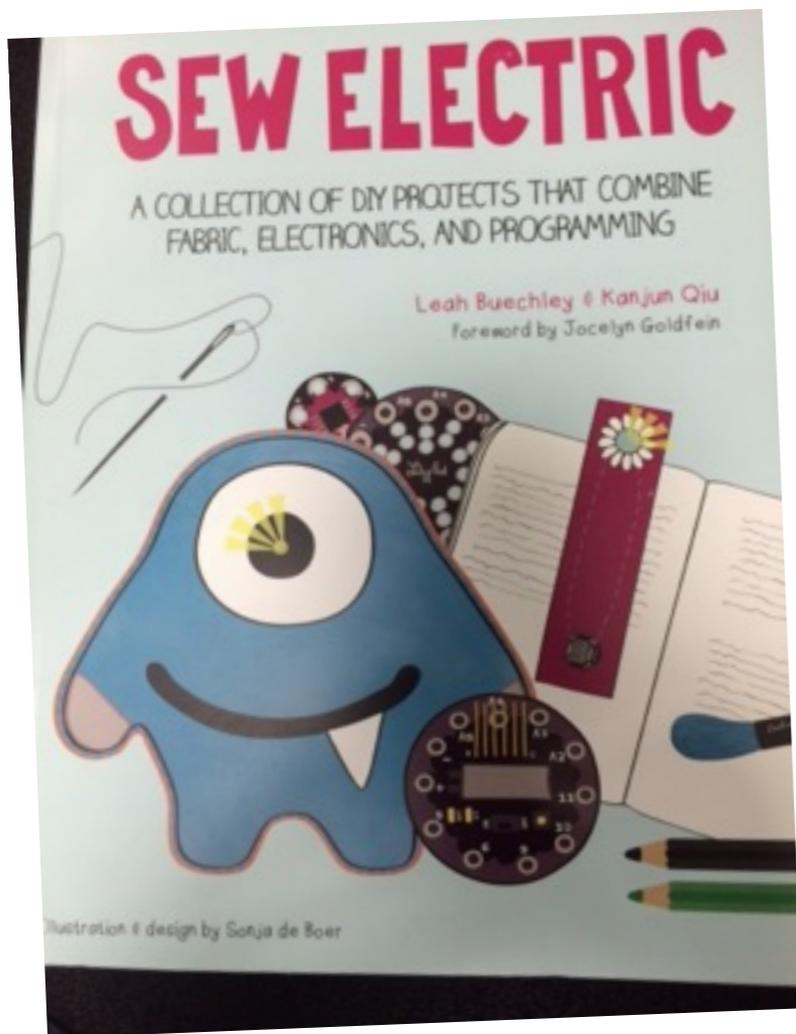
resources:

- k-12-fablabs@googlegroups.com
- <http://makered.org/resources/>
- <https://sites.google.com/site/k12makers/>
- Research on “why make”: <http://mondaytalk-berkeley.blogspot.fr/2014/01/feb-3-paulo-blikstein-maker-movement.html>
- Blogs from makers:
 - <http://ny.chalkbeat.org/2014/03/27/meet-the-makers-how-my-ischoolers-turned-curiosity-into-circuits/#.U-zPMoBdVcr>
 - <https://www.edsurge.com/n/2014-05-14-makers-in-the-classroom-a-how-to-guide>
 - <http://blog.mytko.org/>
 - <http://joshburker.blogspot.com>

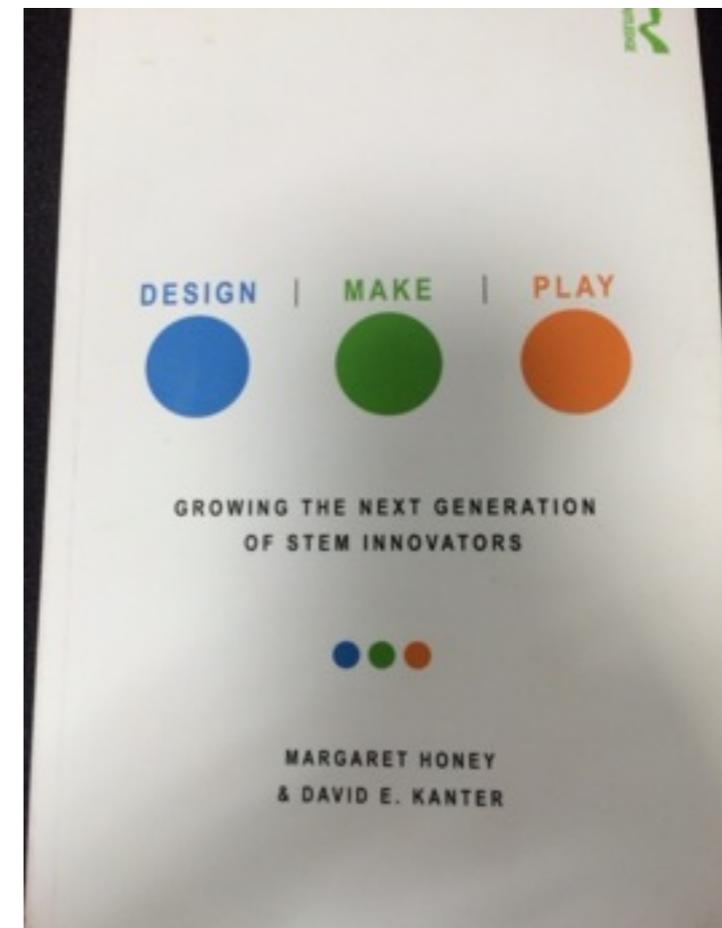
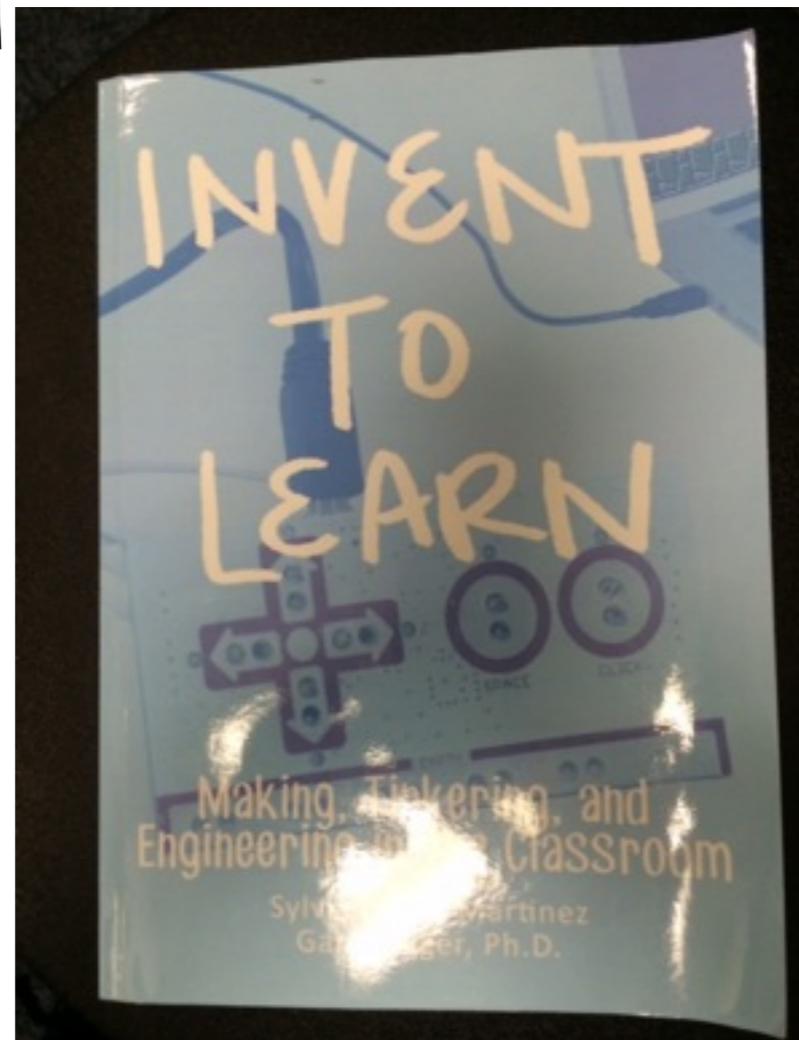
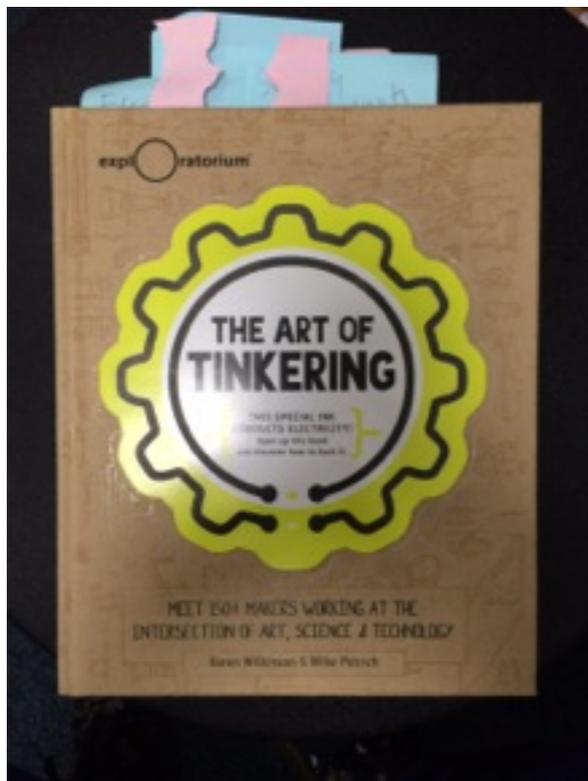
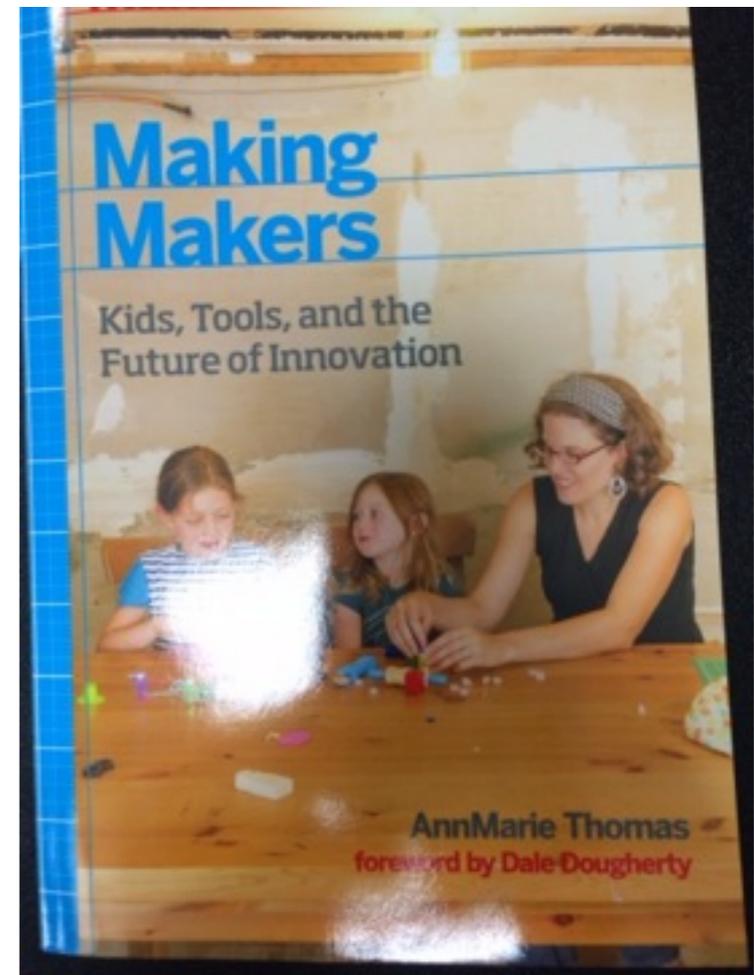
materials:

- littlebits
- lilypad
- sparkfun
- makershed
- adafruit

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Books



what is **making**

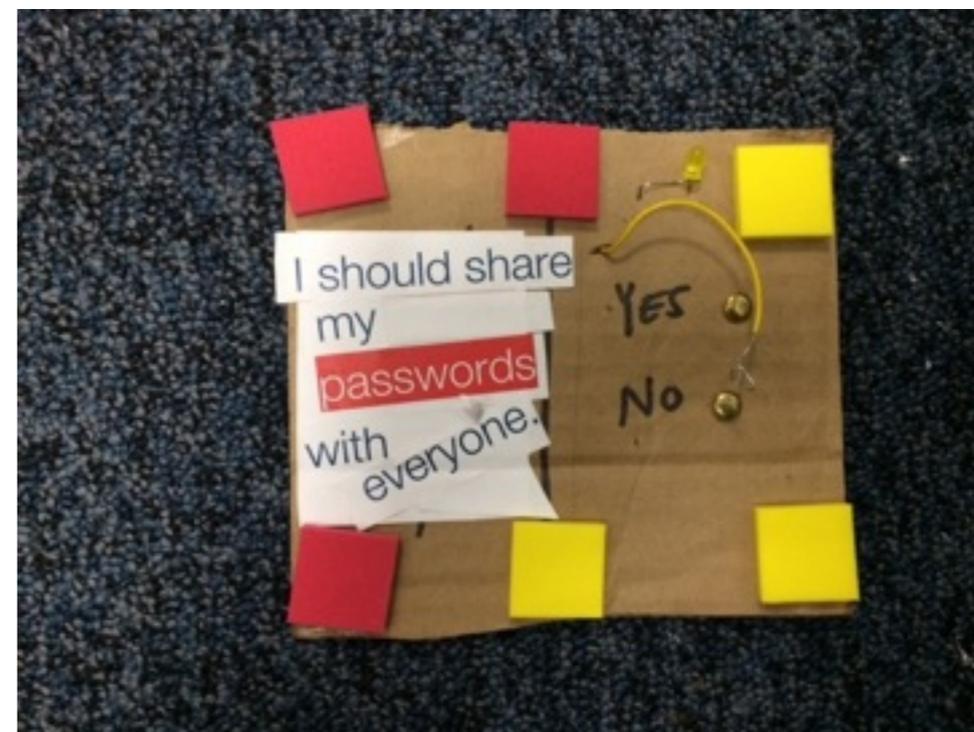
to you??

what is **engineering**
to you??

today's making activity: simple circuits



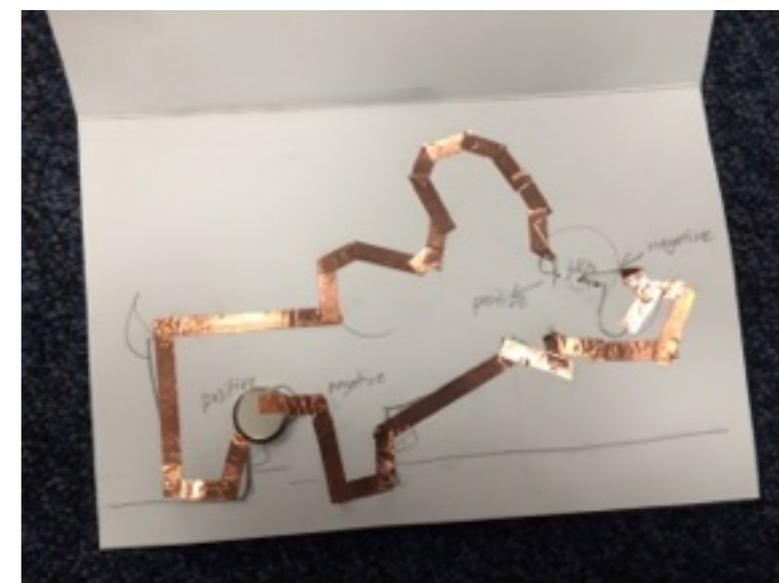
soft circuits

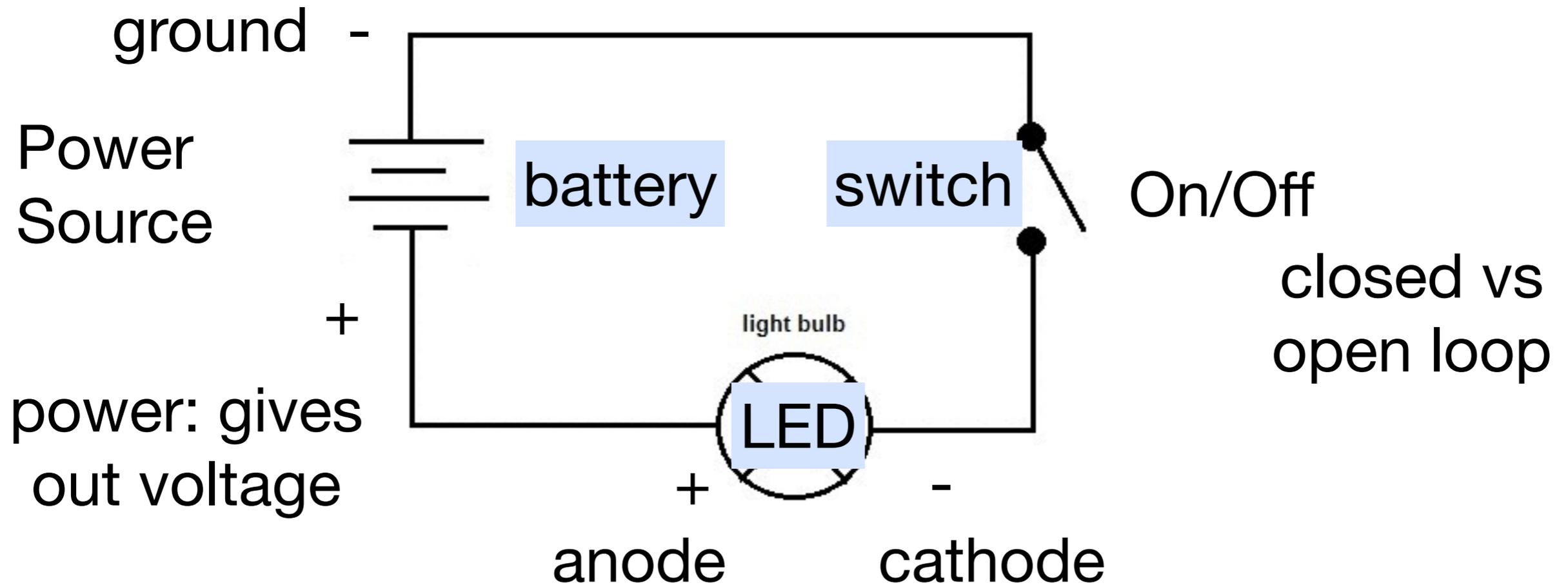


wire circuits



paper circuits





Notes:

All circuit components should go + to +

Positive and negative should NEVER cross - this causes a "short"

end

Education is the launch pad, kids are the rockets and we as teachers need to find the fuse. - Blue School

Let's have making and digital fabrication be that **fuse**.

UNITED NATIONS INTERNATIONAL SCHOOL

A BETTER WORLD



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