



The Human Body

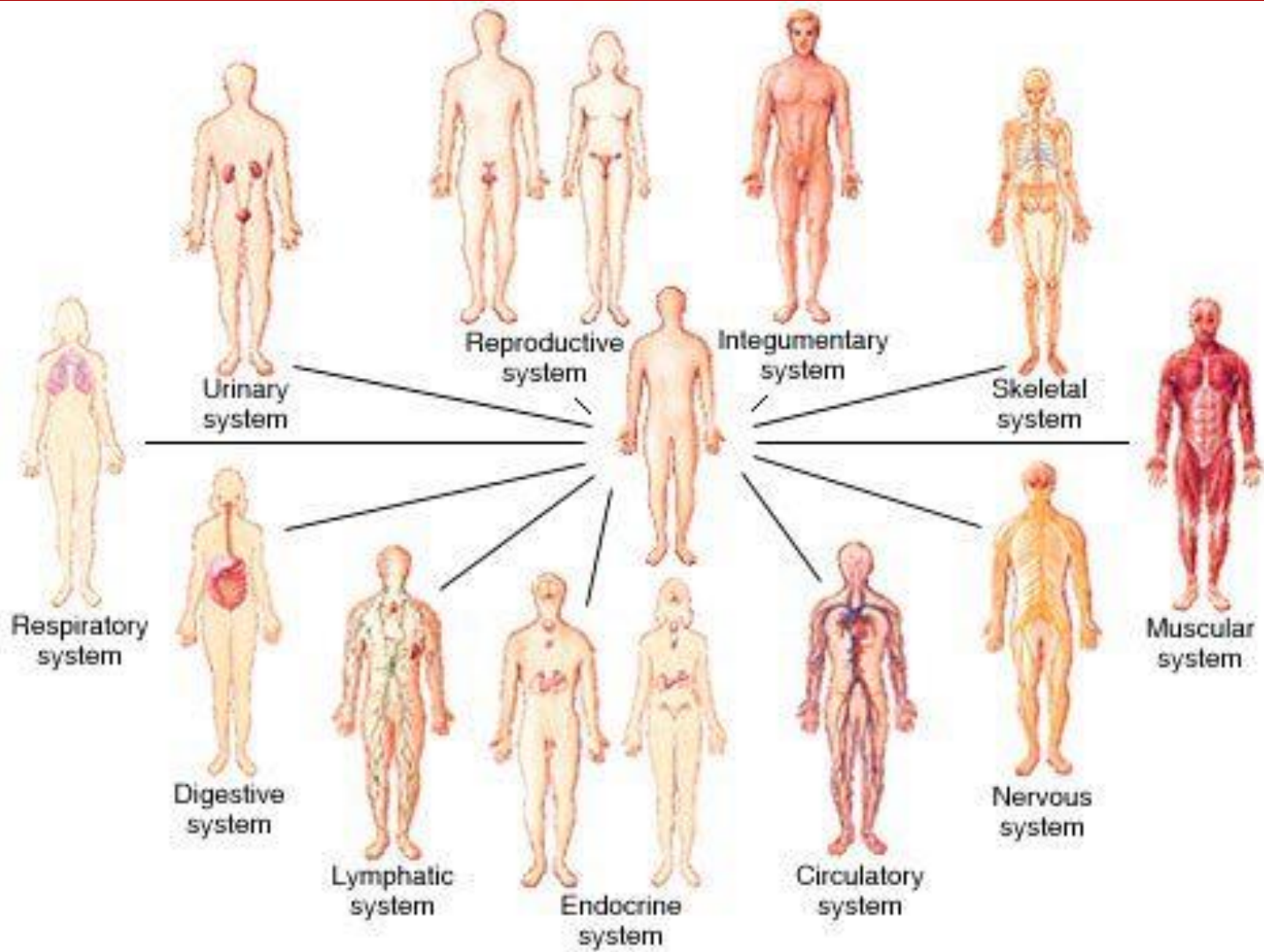
Chapters 35-40

- Specialized cells make up tissues
- A collection of specialized tissues make up organs that perform a function
- Organs are part of larger systems that perform all functions necessary for multicellular organisms to live, grow, reproduce, use energy, respond to stimuli and maintain homeostasis

Main Ideas

- Anatomy is the study of the structure of the organs and organ systems
- Physiology is the study of the function of the organs and organ systems

Main Ideas



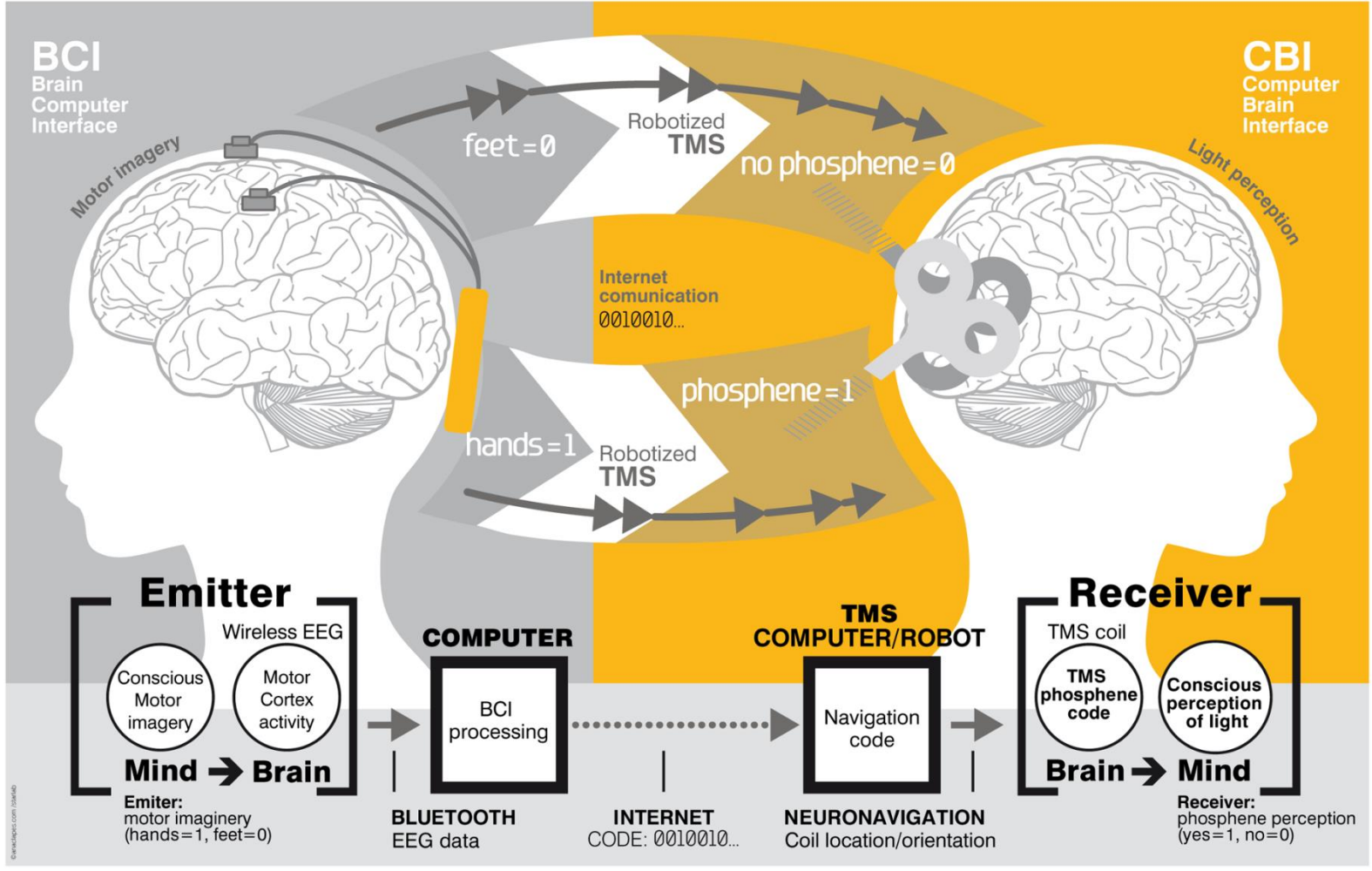
Human Organ Systems

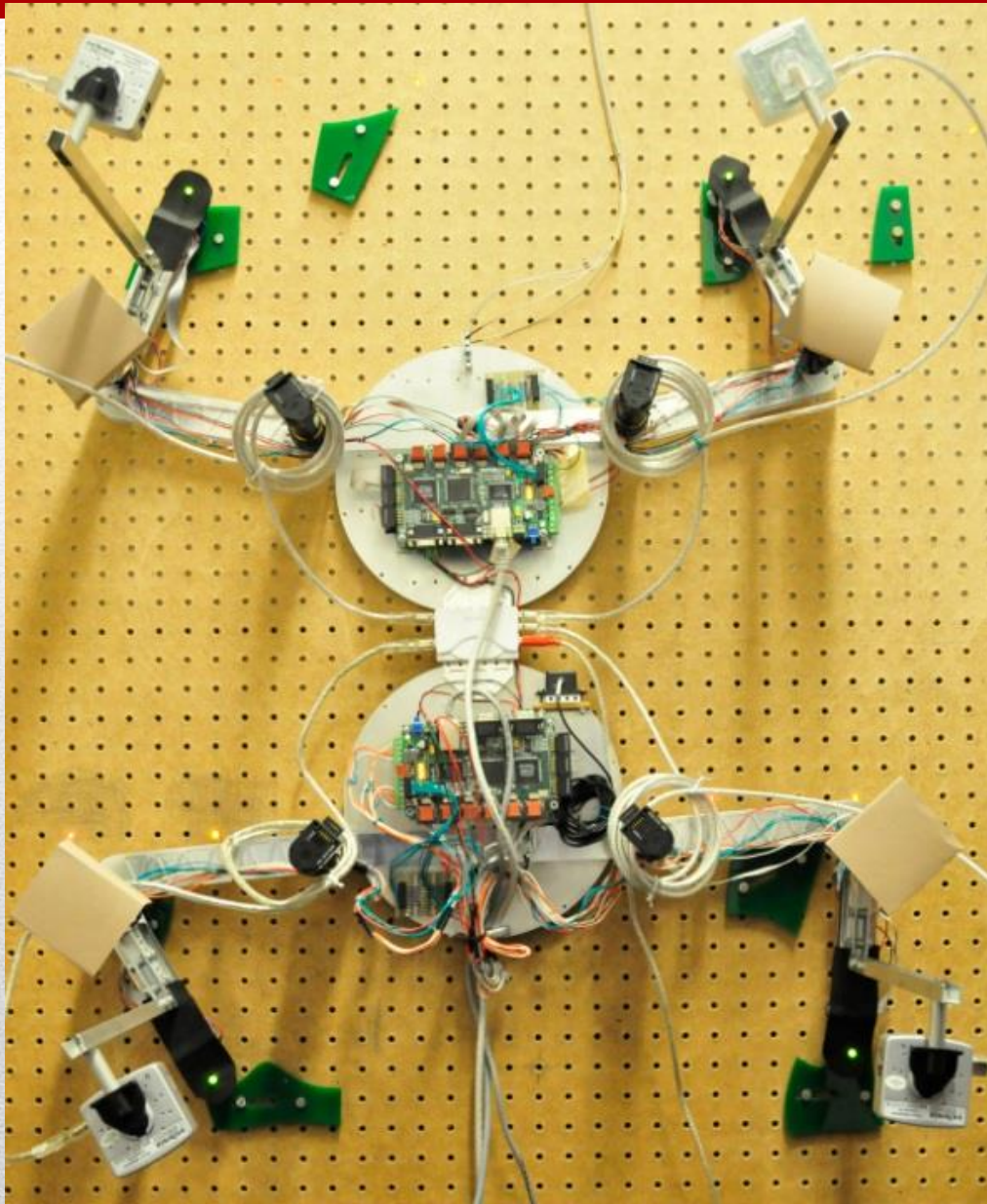
- <https://www.youtube.com/watch?v=0yjLJfz6saU>

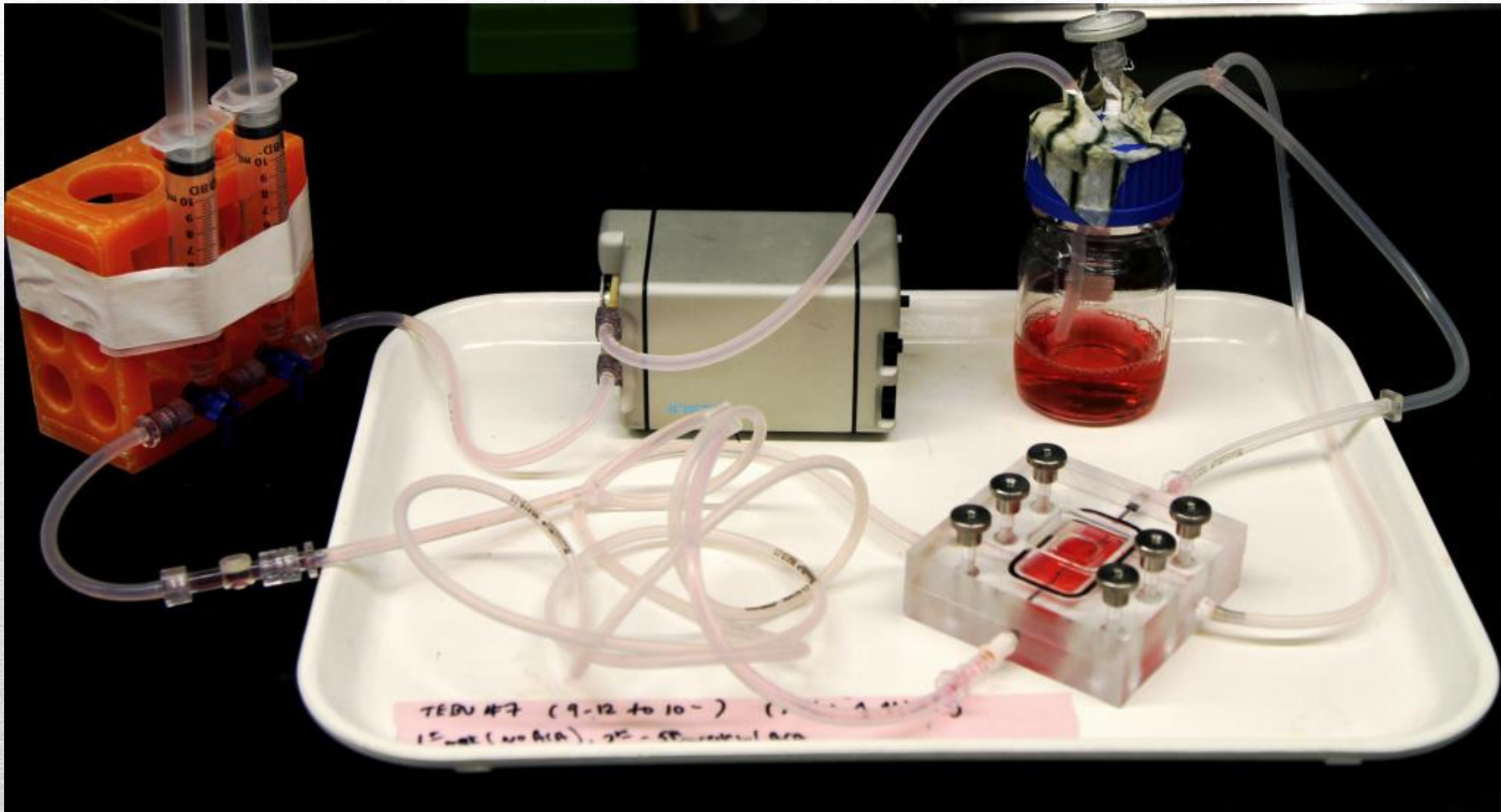
Human Body Project

- Research and present information on assigned organ system-how does it work? What does it do? What types of cells and tissues? How is it organized? How does it function? How does it work with other organ systems? What goes wrong in diseases that affect the organ system?
- Using Biological, physical and engineering principles, design, plan and build a model that performs the function of the assigned organ system

Human Body Project- Process

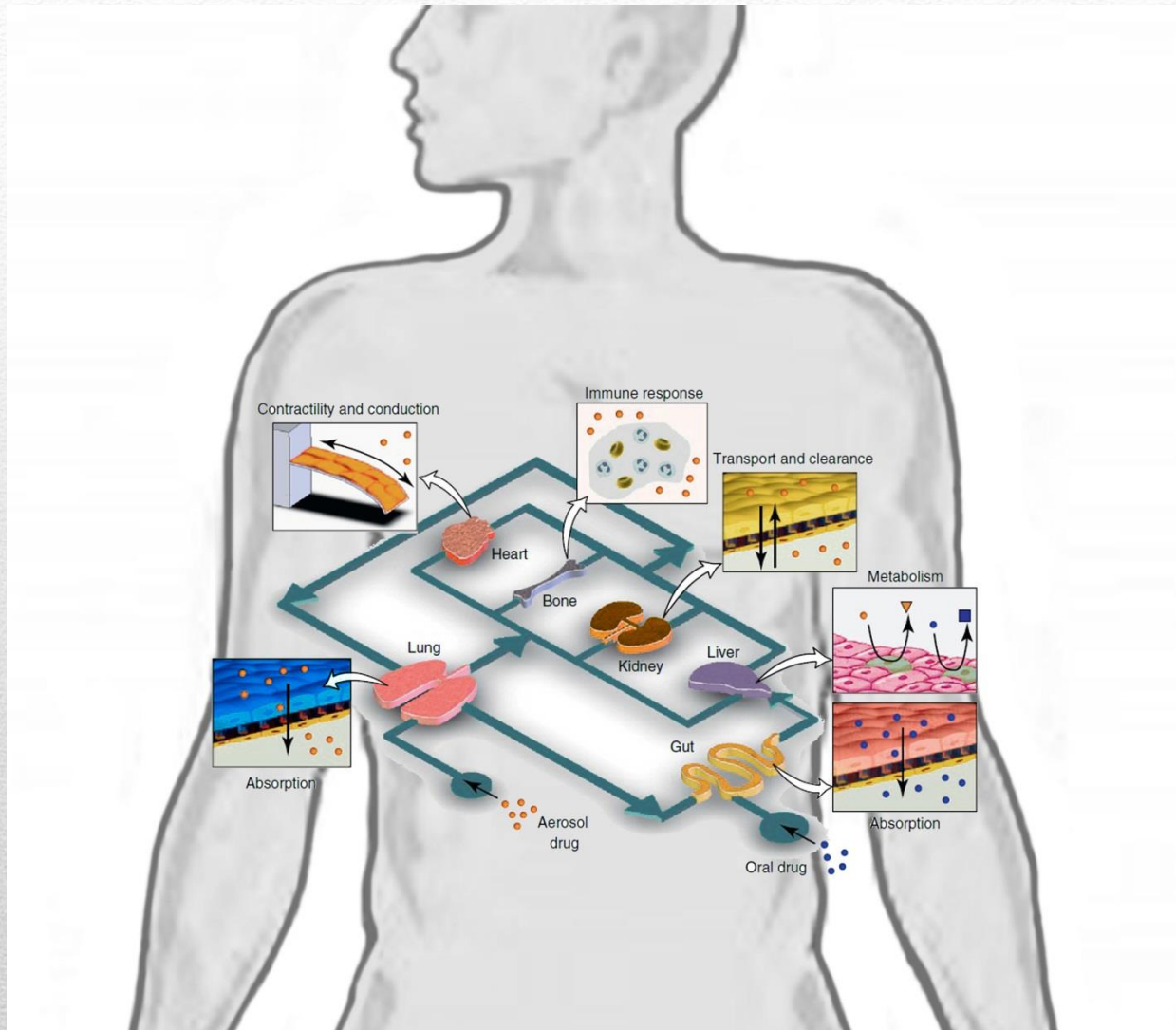






- <http://www.bloomberg.com/video/70495962-atala-discusses-human-organ-engineering-innovators.html>

3D printing of organs



- <http://nanoscience.ucf.edu/hickman/>
- <http://phys.org/news/2013-03-3d-printer-bio-ink-human-video.html>

Organ systems on a chip

- Presentations will be made during the second day that you have class during Finals
- Design, materials list and building plan due January 16
- Final tested model due February 6
- Exhibition February 13

Human Body Project- Timeline

- Presentation on organ system and diseases that affect it
- Design, materials list and plan
- Model
- Presentation of model on exhibition night
- Collaboration report
- Reflection on process and project

Human Body Project- Products
