

Intro to Physical Computing

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(required class)

Purpose

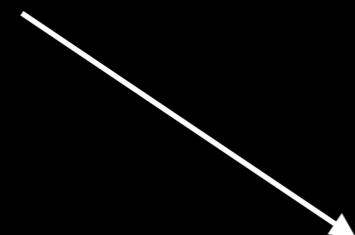
Support/Expand/Enable creative expression...

...with technology...

...focused on physical, embodied interaction.

Method

“...with technology”



Programming Microcontrollers and Circuits

to be Cool*

“Enable creative expression...”



“...focused on physical, embodied interaction.”

Circuits

Programming Microcontrollers and **Circuits** to be Cool*



- Electrical properties (voltage, resistance)
- Basic components and simple circuits
- Breadboard prototyping
- Testing and measuring
- Handling higher power

Microcontrollers

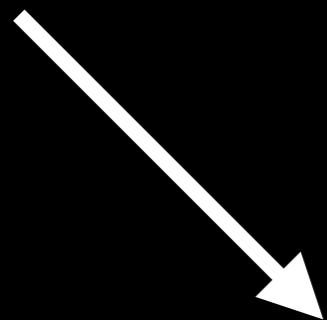
Programming **Microcontrollers** and Circuits to be Cool*



- Small cheap single-task computers
- Can sense and output voltages
- Fast (compared to us)

Programming

Programming Microcontrollers and Circuits to be Cool*



- Simple Development Tools
- Programming basics
 - Pseudocode
 - Variables, memory
 - Structure, control flow

to be Cool*

Programming Microcontrollers and Circuits to be Cool*

to be Cool*

Programming Microcontrollers and Circuits **to be Cool***

*Up to you







Light

Sound

Pressure

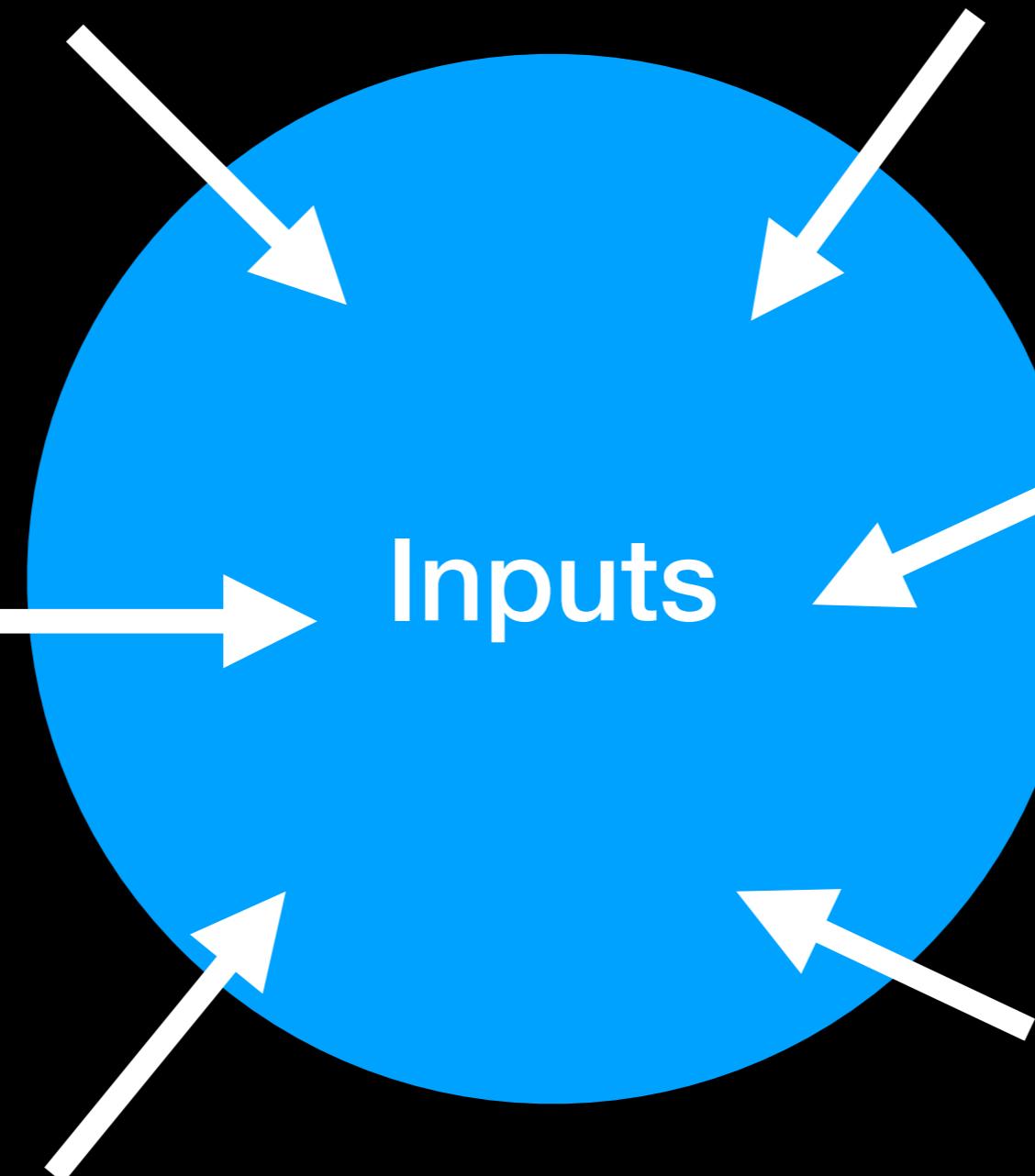
Inputs

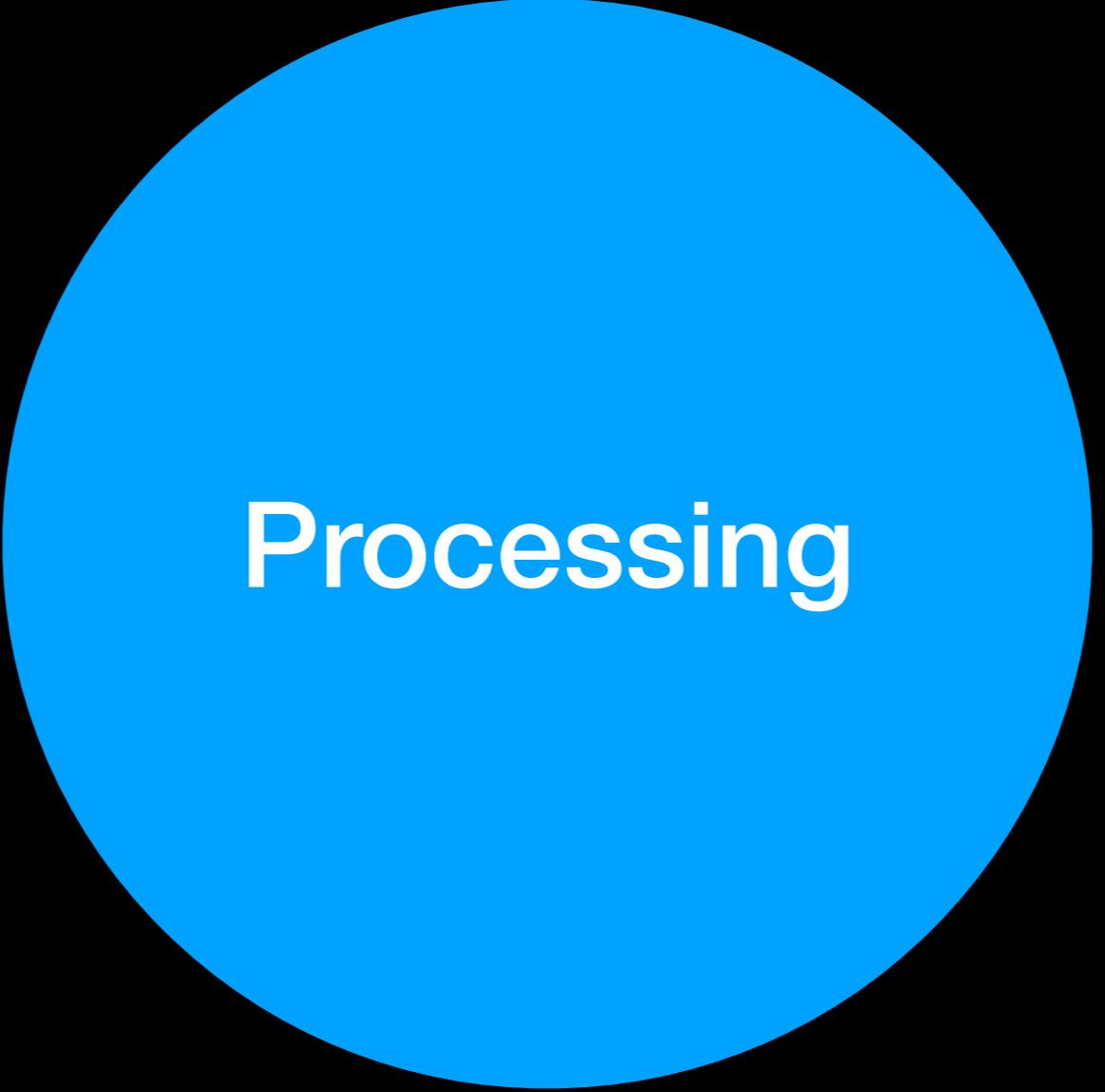
Motion

Temperature

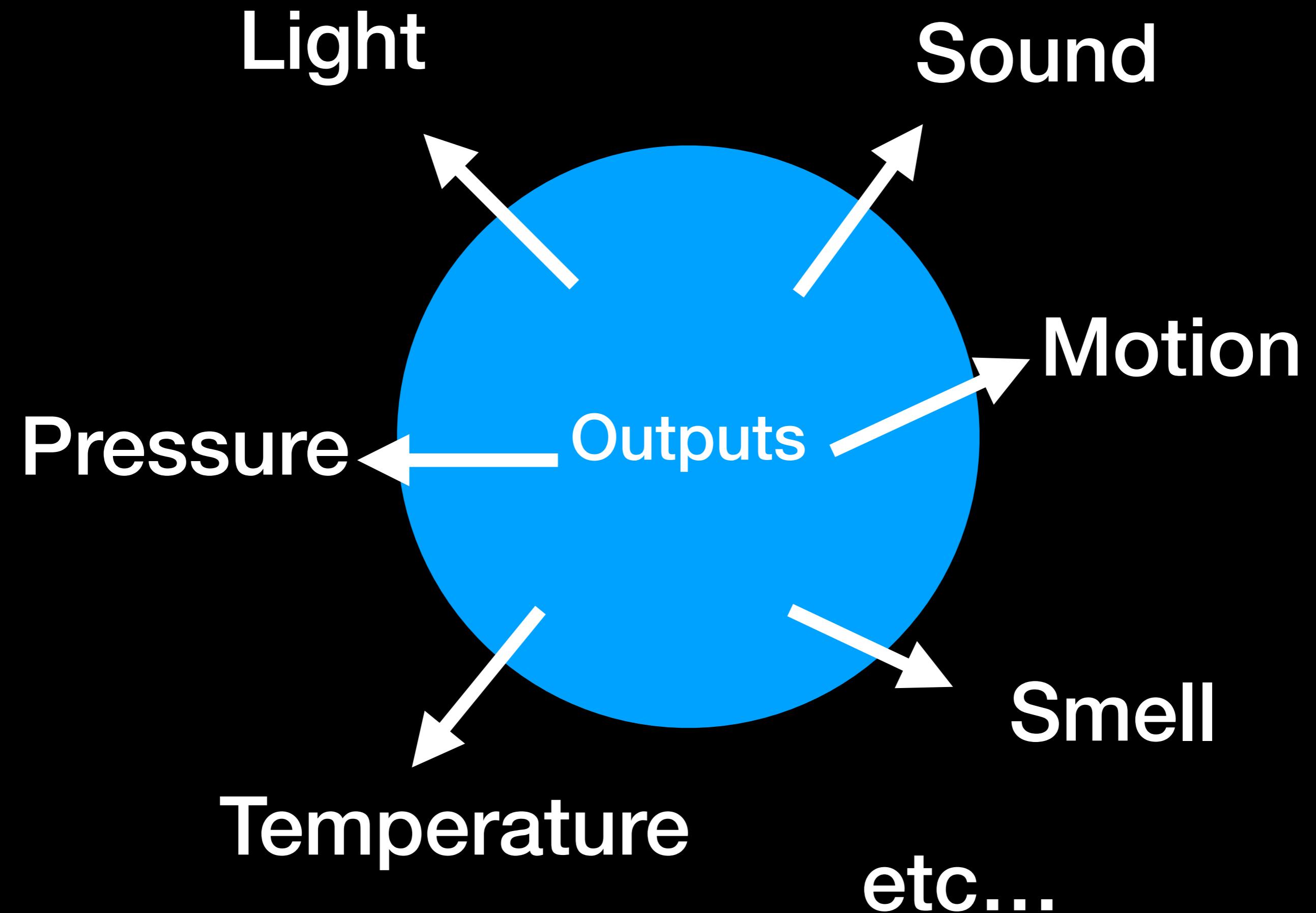
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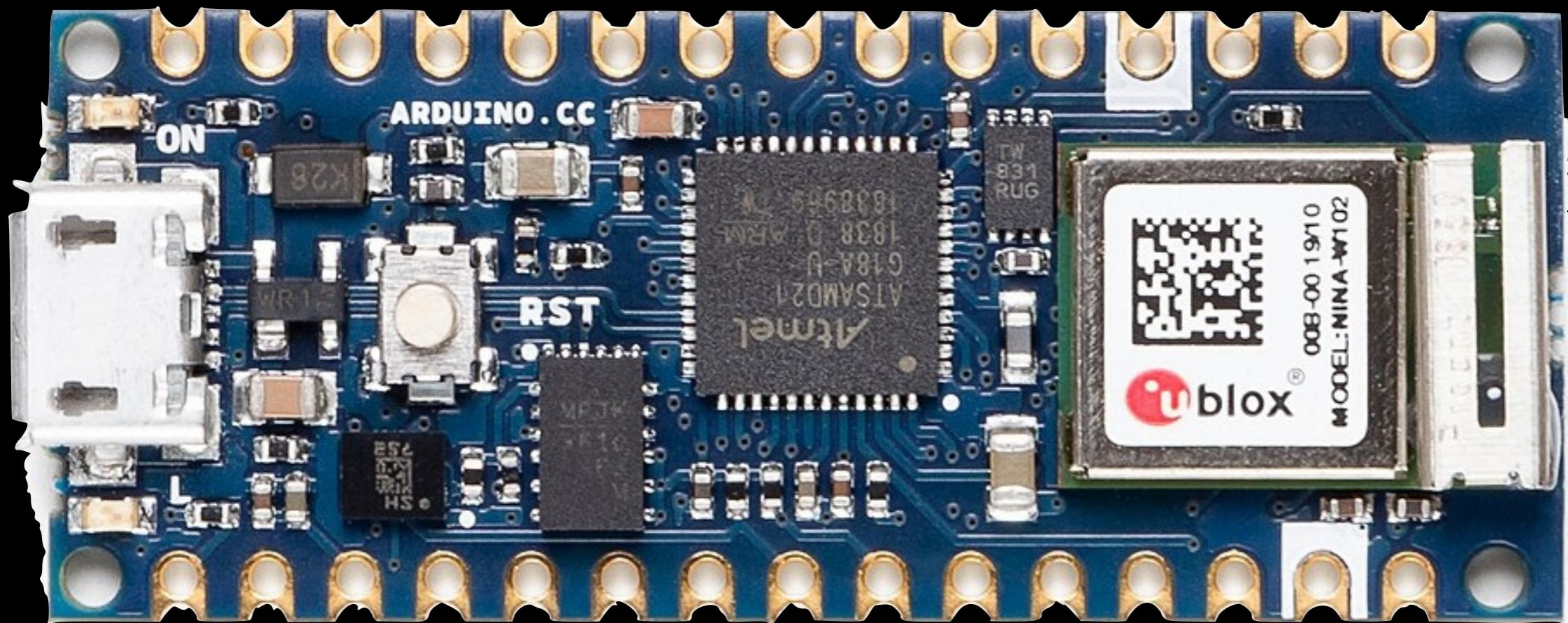
Smell





Processing





Light

Sound

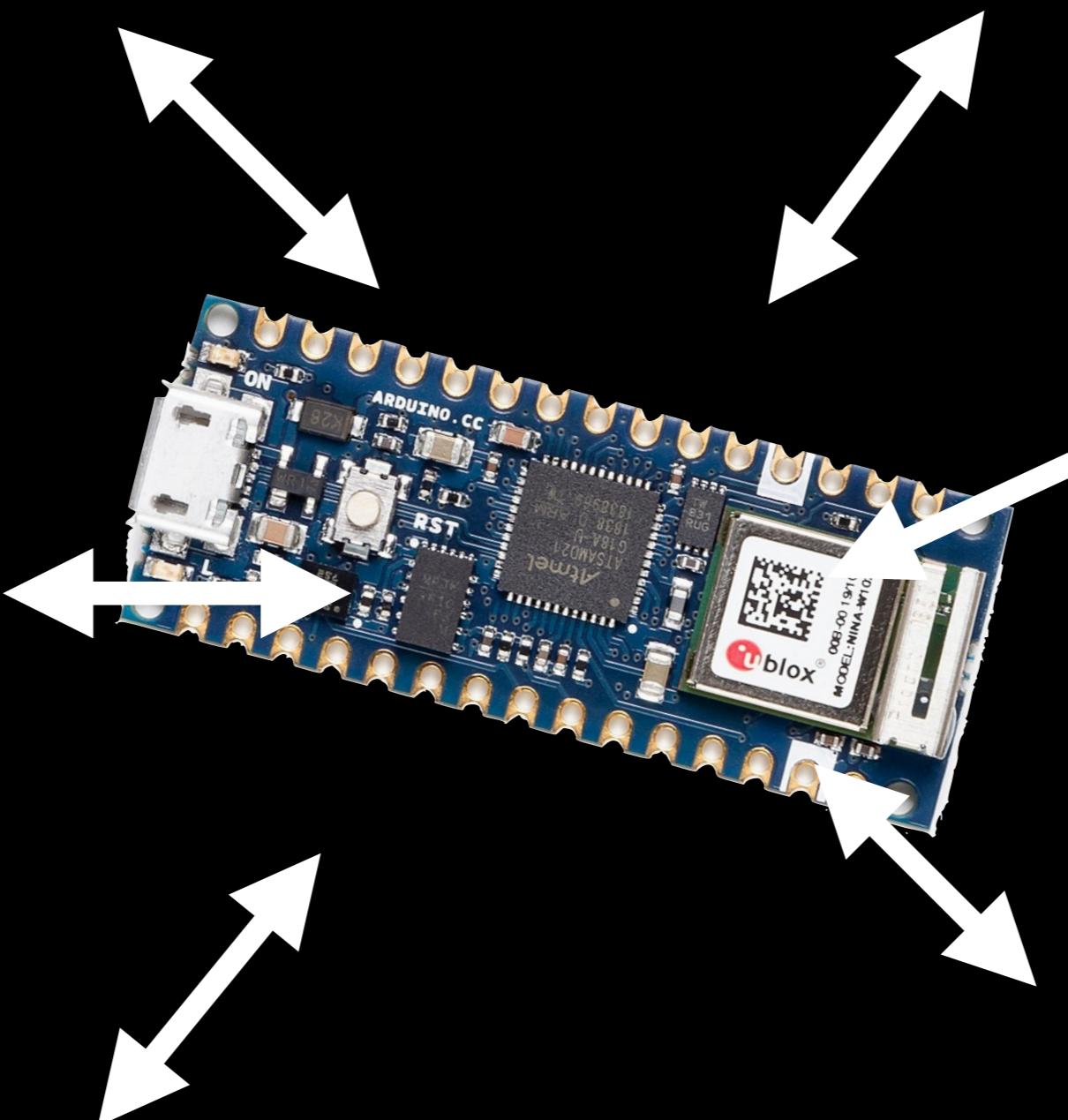
Pressure

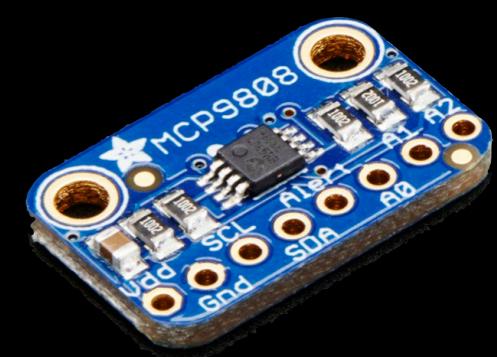
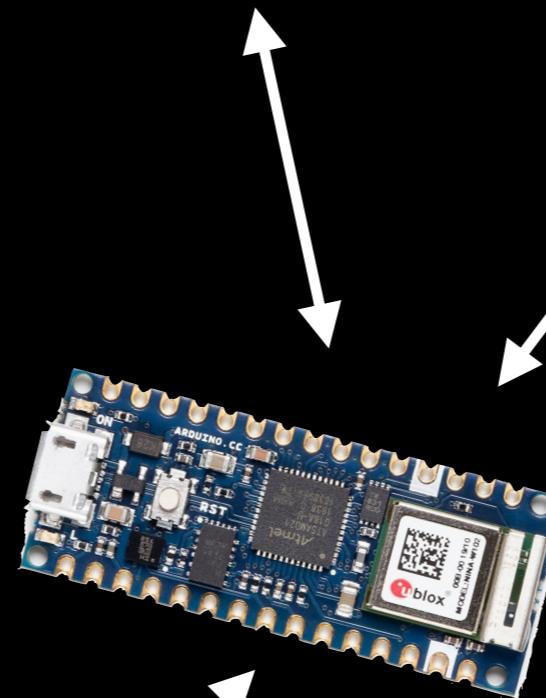
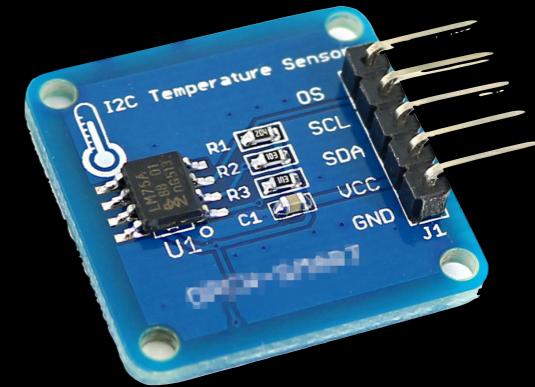
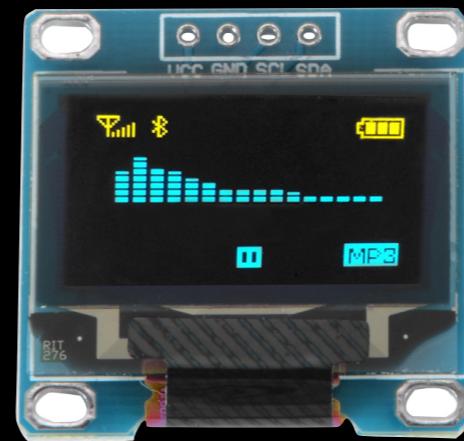
Temperature

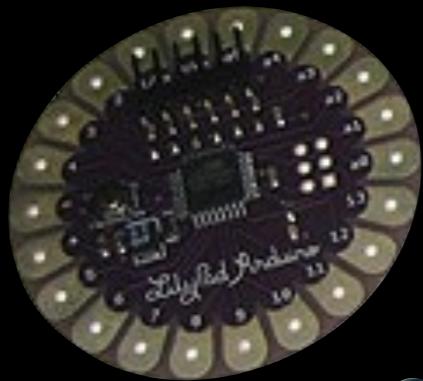
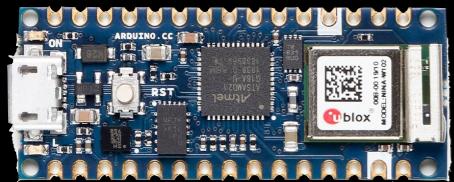
Motion

Smell

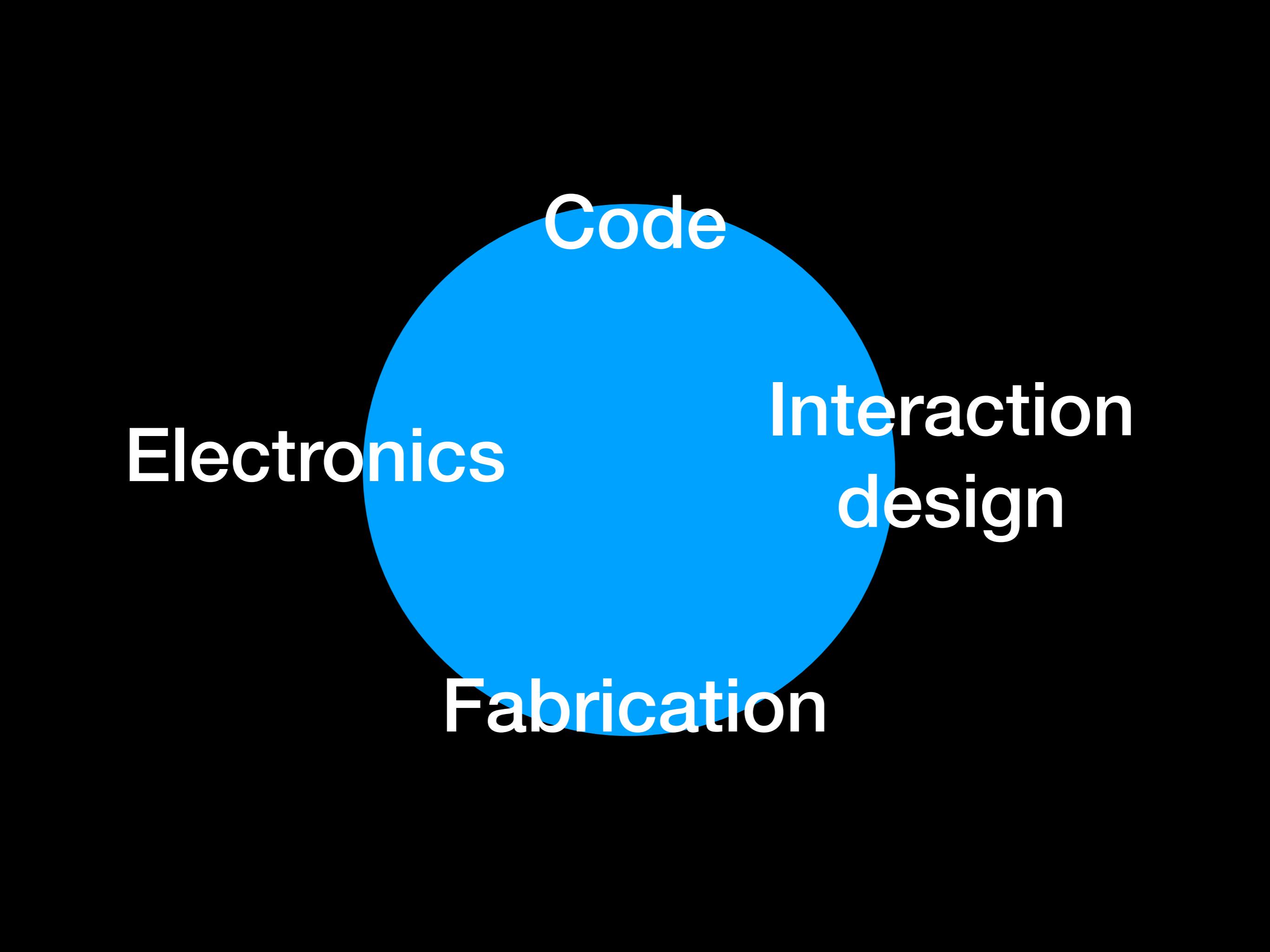
etc...







- Methods for handling larger projects
- Fabrication
- Play testing and User Testing
- Presenting and documenting



Electronics

Code

Interaction
design

Fabrication