Introduction to Physical Computing & Computer Science with the Digital Sandbox



# 0 - Basic Concepts

Program Block (setup vs. loop)

Pin numbers and pin designations

Creating programs in ArduBlock

Saving your programs

Adding comments

# 1 - Exploring Blink Concepts

Program Block (setup vs. loop)

Pin numbers and pin designations

Creating programs in ArduBlock

Can we create a heartbeat pattern?

**LED pattern challenge:**

Generate / create a multiple sequence pattern that has at least three distinct modes:

1) Flash Dance -- script and program a full sequence in under 2 seconds

2) LED Chaser -- Larson Scanner

3) Ping-pong or other unique / artistic sequence.

# 2 - Analog vs. Digital

 So far, we have only dealt with LEDs turning on and off. What if we try this:

# 3 - Analog vs. Digital

 So far, we have only dealt with LEDs turning on and off. What if we try this:

#

#

# 9 - Fun Project Ideas

1. Microphone to LED amplitude using set analog pin
2. Scaling Temperature
3. LED Bar graph using slider
4. Reaction Timer