A POSTERIORI
Play · Experience · Learn
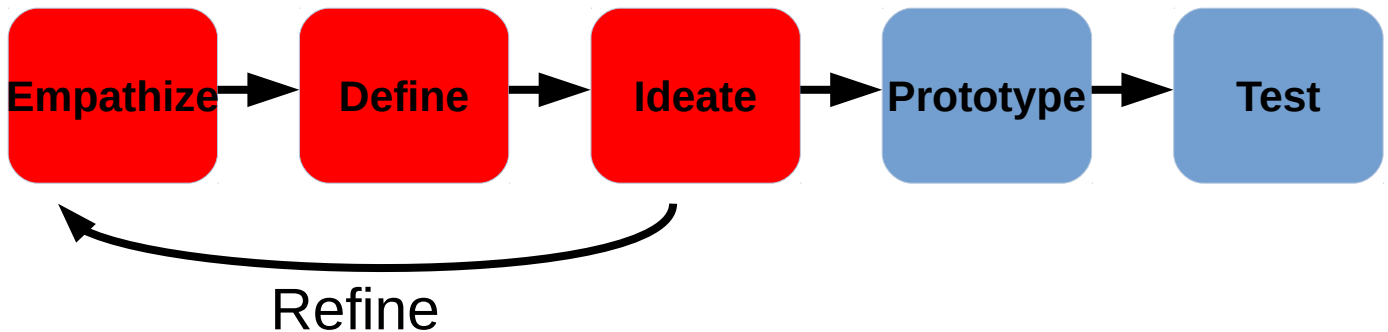
Name:		Class:	

Lesson 9 (Review / Iterate)

Slides – https://a9i.sg/huayi
mBlock – https://ide.mblock.cc (start mLink too!)

Design Thinking

Empathize → Define → Ideate → Prototype → Test

Refine

Review / Checkpoint
- Review Idea
- Review Problem Statement
- Work with your team to refine what you already have

Keep In Mind
- User is the most important member of the design team
- If they are not around, empathize and think from their viewpoint
- Be open to criticism, feedback and creative destruction
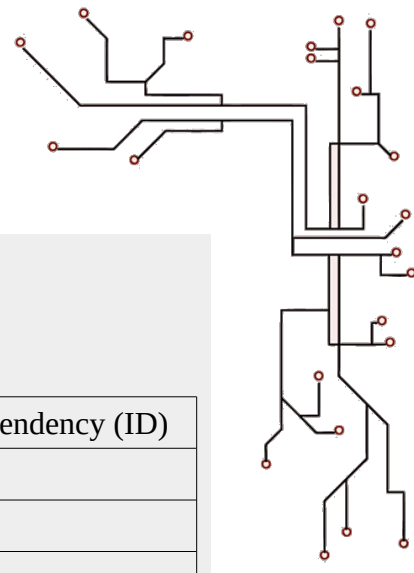- Don't mind what's hard to do at this stage, only what's the best solution

Lite Project Management
- Break project into components (e.g. artwork, code, electronics, packaging, report)
- Break component into steps/tasks
- Set hard dates working back from project completion date
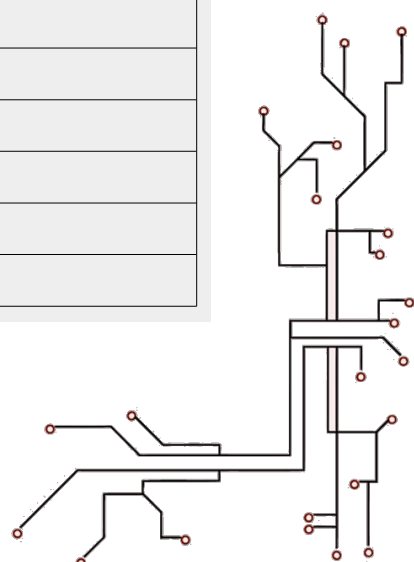- Don't exaggerate your ability, or the complexity of each item
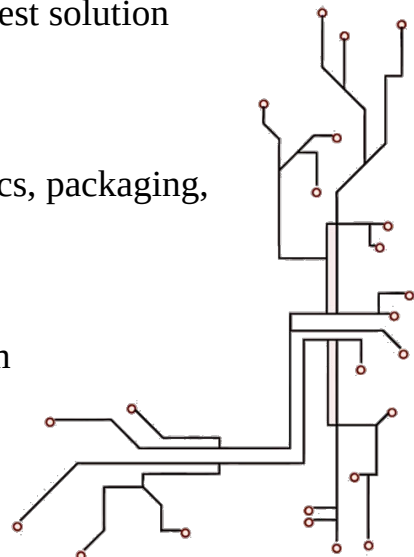
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ALP Project (Management)

Make sure to keep this; you'll need to include it in your ALP report.
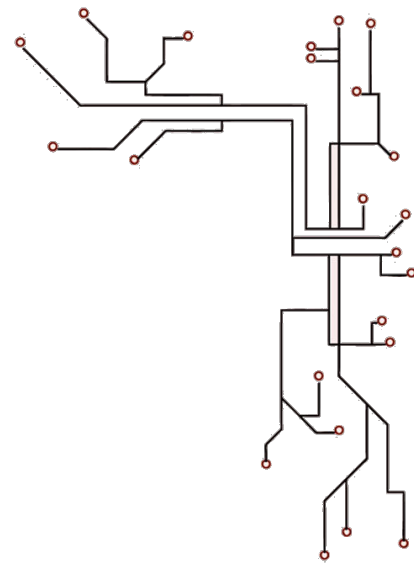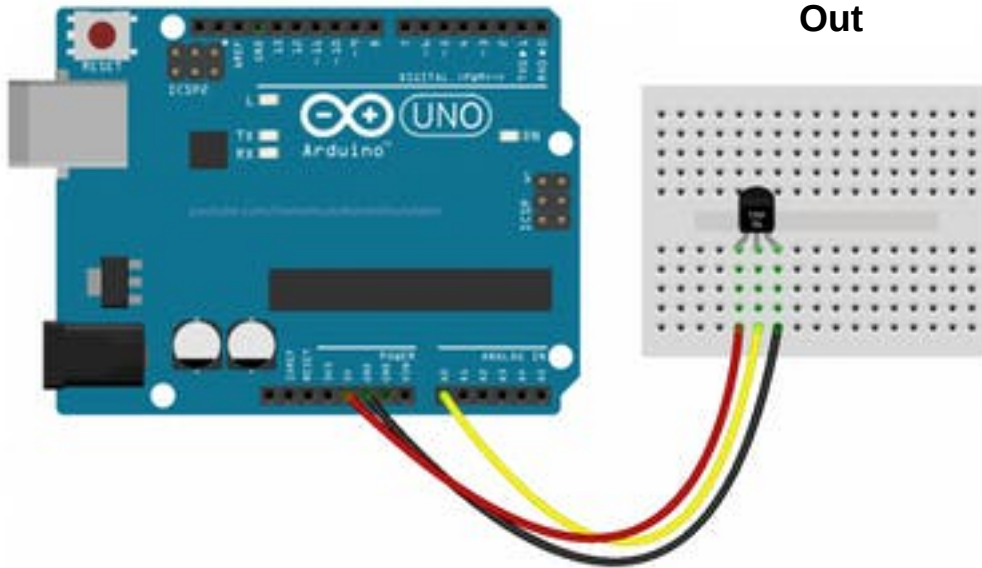
ID	Description	Completion Date	Dependency (ID)

Temperatuer Sensor

Pins Connections

Sensor	Arduino
Vcc	5V
Out	Any Analog (A0 - A5)
Gnd	Gnd

Vcc

Out

Gnd

map **read analog pin (A)** **0** **from (** **0** **,** **1023** **)** **to (** **0** **,** **5** **)**

Reading temperature & convert to Voltage

Converting voltage to °C:
Temperature = (Voltage – 0.5) x 100
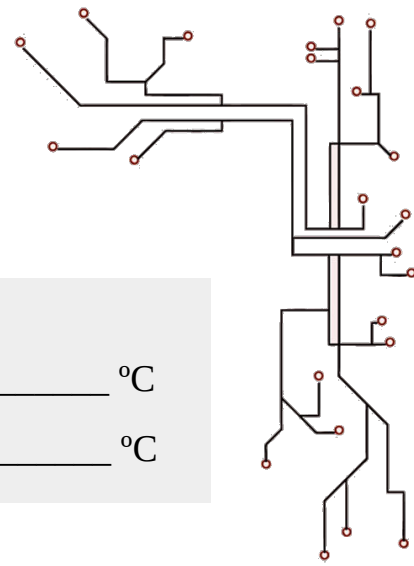(broadcast result or save in a variable)

Showing temperature:

- Sprite Says (º36), like a speech bubble
- Or show in some other way
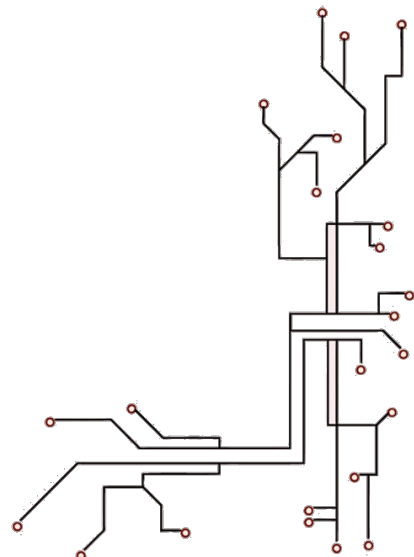
Heat Alarm

Add On-Screen Alert!

- Choose a threshold.
- Show a Siren Sprite if Too Hot!

Add Alarm!

- Choose a threshold
- Activate buzzer to alarm users

Buzzer	Arduino
+	Any I/O (Pin 2 to 12)
-	Gnd