Thinker1 Getting Started
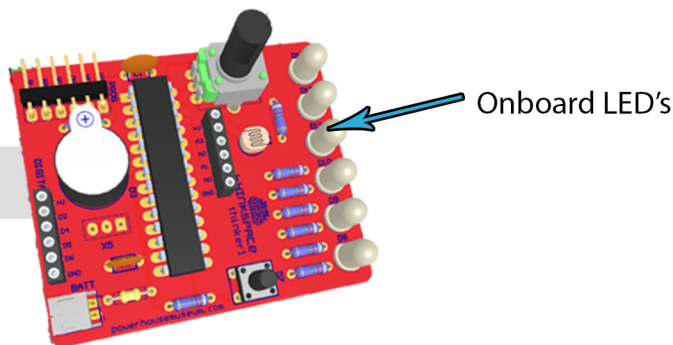
with arduino
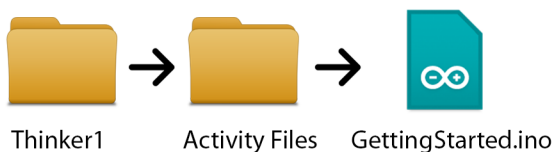
thinkspace

ph | powerhouse museum science+design

What are we doing?

We are going to blink an onboard LED using Arduino programming language.

What files will we be using?

Thinker1 → Activity Files → GettingStarted.ino

What parts of the board will you be using?

Onboard LED's

How to set it up

Step 1

Plug in your thinker1 in using an FTDI cable and open the Arduino program.

Step 2

From the Tools menu select Board and then select *LilyPad board type ATMega 168*.

Step 3

From the Tools menu, select 'Serial Port' and select the appropriate port. For more information refer to the Thinker1 Software Reference Sheet.

Step 4

Open the file: GettingStarted.ino

Step 5

Upload your program the LED on your board should start to flash.

Step 6

Try changing the values to change the speed of the blink. For example change;

```
Delay(1000); // 1000 milliseconds between blinks (slower)
```

to

```
Delay(100);  // 100 milliseconds between blinks (faster)
```

Remember to repeat step 5 each time you change the code.

Program Logic

Power On

↓

Define Variables

↓

Setup()
Make LED pin an output

↓

Start Loop()

↓

Turn LED on

↓

Wait for 1 second

↓

Turn LED off

↓

Wait for 1 second

↓

End Loop()