Thinker1
Persistence of Vision
Activity Two

thinkspace

ph | powerhouse museum science + design
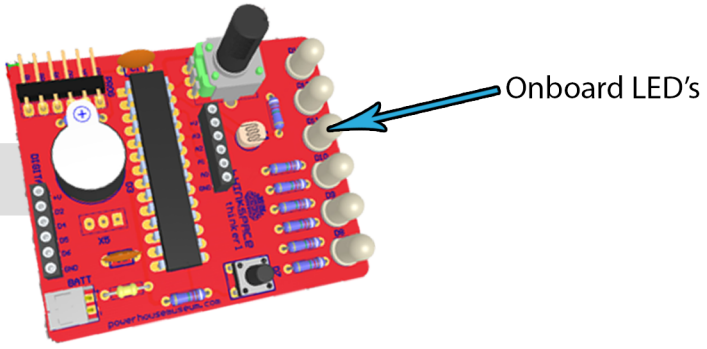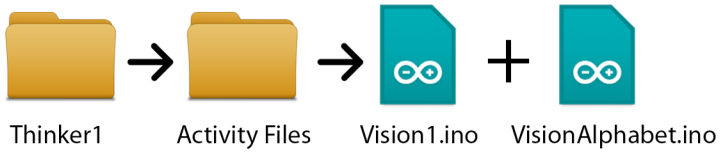
What are we doing?

We will expand our persistance of vision example to allow custom words and symbols.

What files will we be using?

Thinker1 → Activity Files → Vision1.ino + VisionAlphabet.ino

What parts of the board will you be using?

Onboard LED's

Instructions

Step 1

Open both the files: Vision1.ino   VisionAlphabet.ino

You will need both the files open at the same time.

Step 2

VisionAlphabet.ino contains the code blocks to produce all the letters of the alphabet. Let's try modifying our existing example by copying and pasting one of the code blocks.
Find the code for the letter A , it will look like this;

```
0,0,0,0,0,0,  //A
1,1,1,1,1,0,
0,0,1,0,0,1,
0,0,1,0,0,1,
1,1,1,1,1,0,
0,0,0,0,0,0,
```
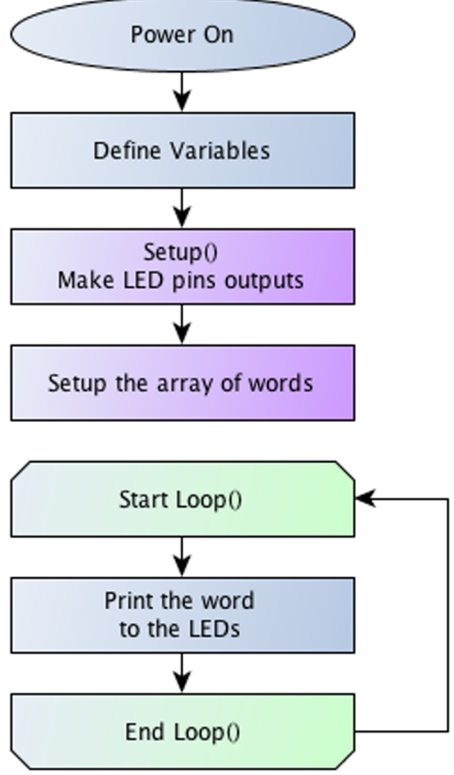
Copy this block to the clipboard and then back in Vision2.ino, find the code block for the letter I. Let's replace the letter I in THINK with the letter A to change THINK into THANK.

Step 3

Now that you have changed our existing example, try to create your own word from scratch, just copy and paste the letters you need from VisionAlphabet.ino into our example file.

With a little creativity it's easy to create your own symbols or patterns. Use the grid on the right (showing the letter A) as a guide and see what shapes you can come up with.

Program Logic

Power On

↓

Define Variables

↓

Setup()
Make LED pins outputs

↓

Setup the array of words

↓

Start Loop()

↓

Print the word
to the LEDs

↓

End Loop()

0	0	0	0	0	0
1	1	1	1	1	0
0	0	1	0	0	1
0	0	1	0	0	1
1	1	1	1	1	0
0	0	0	0	0	0