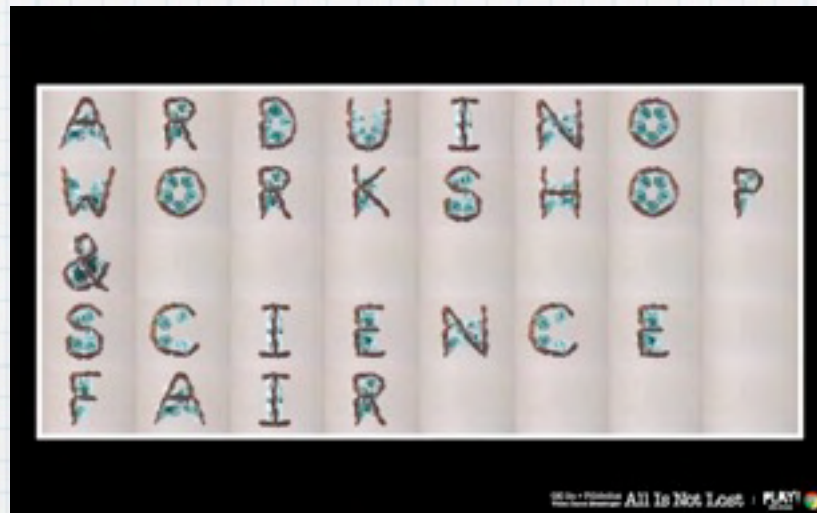


Arduino

Physical Computing



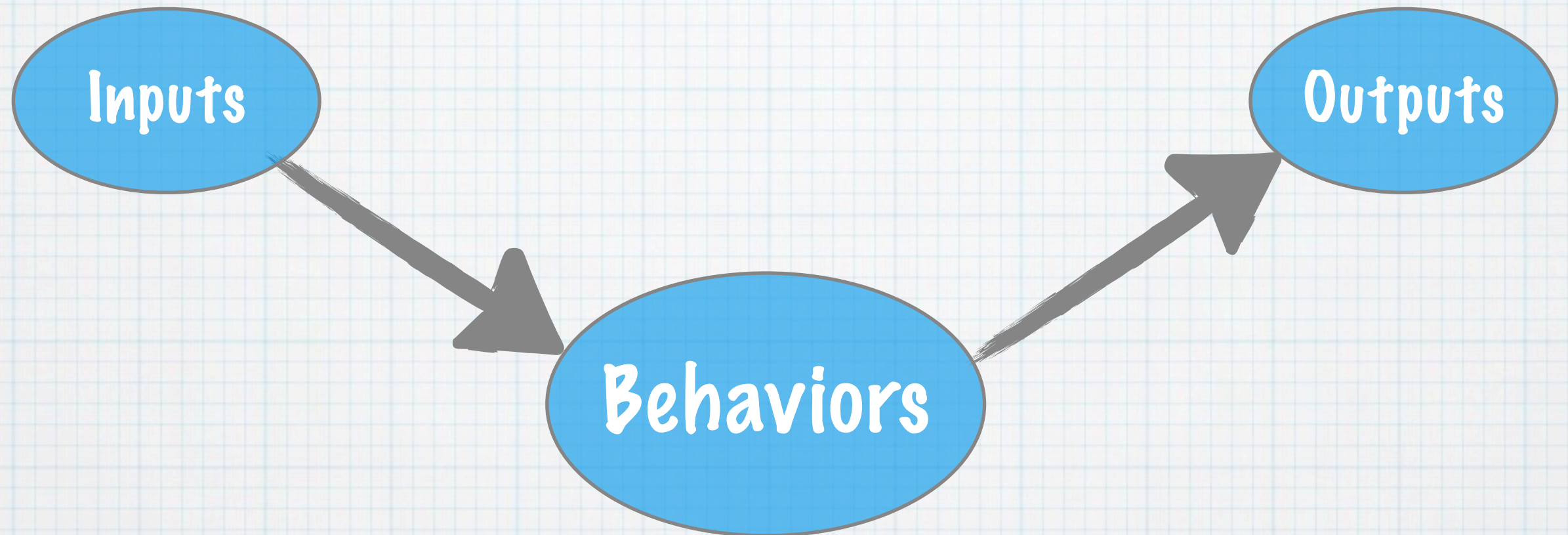
Physical Computing

System Model



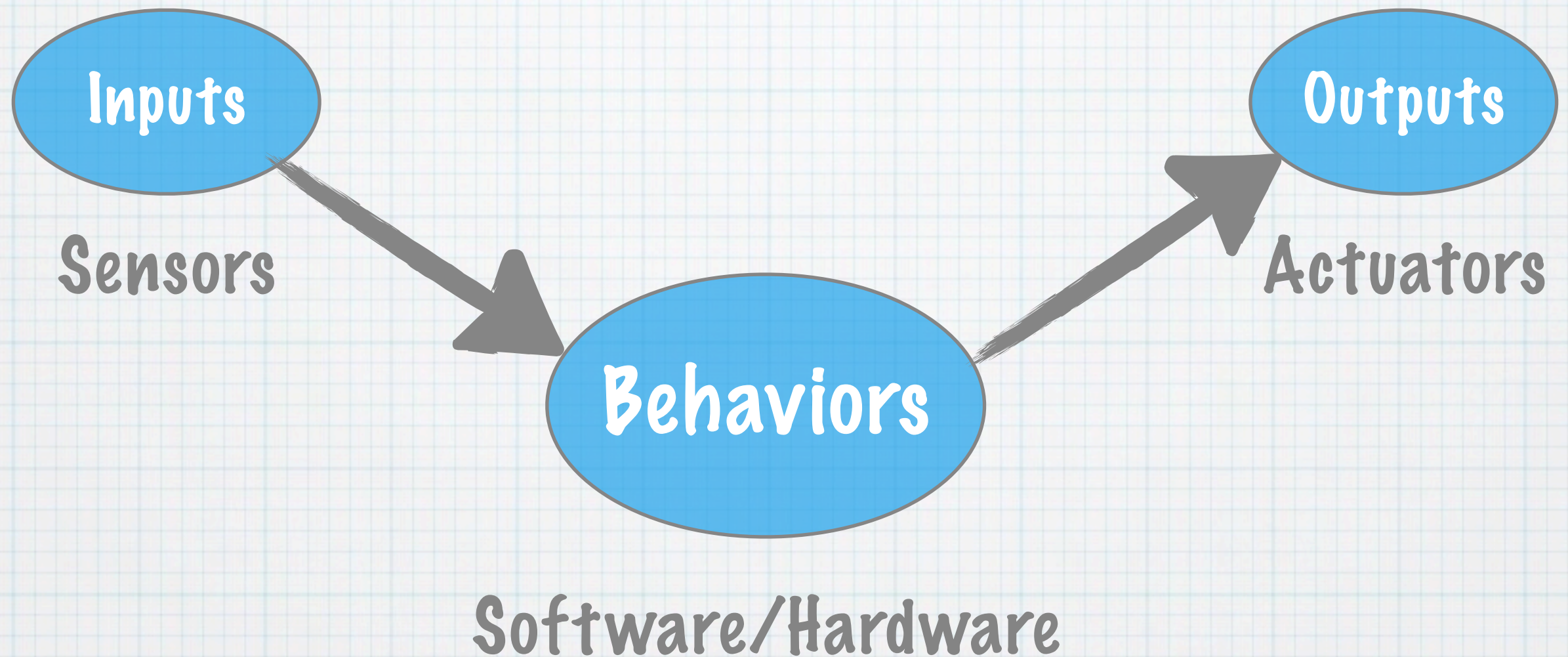
Physical Computing

System Model



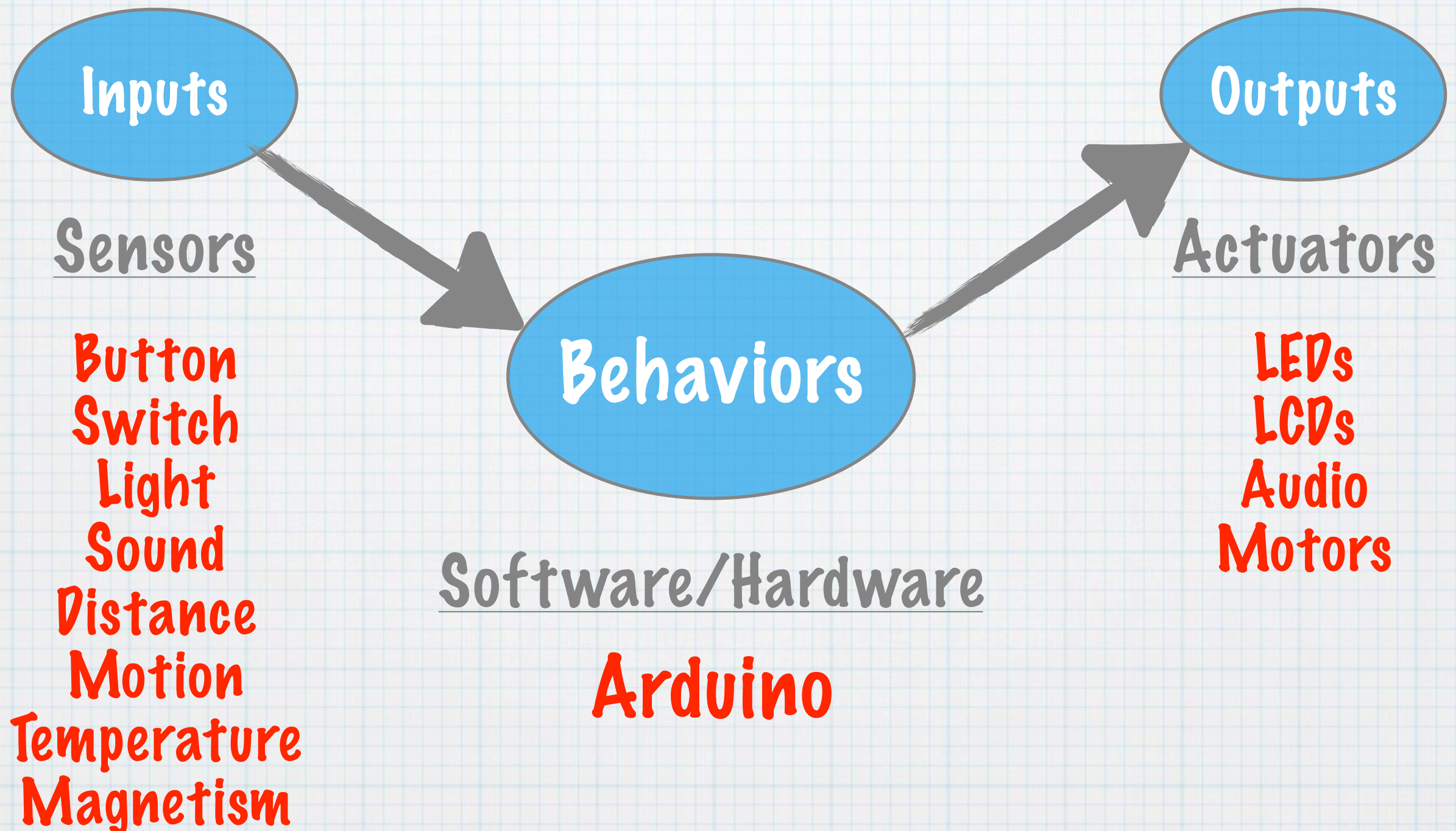
Physical Computing

System Model



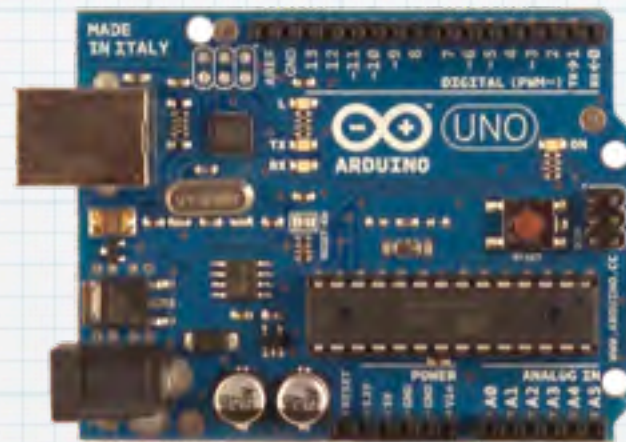
Physical Computing

System Model



Arduino

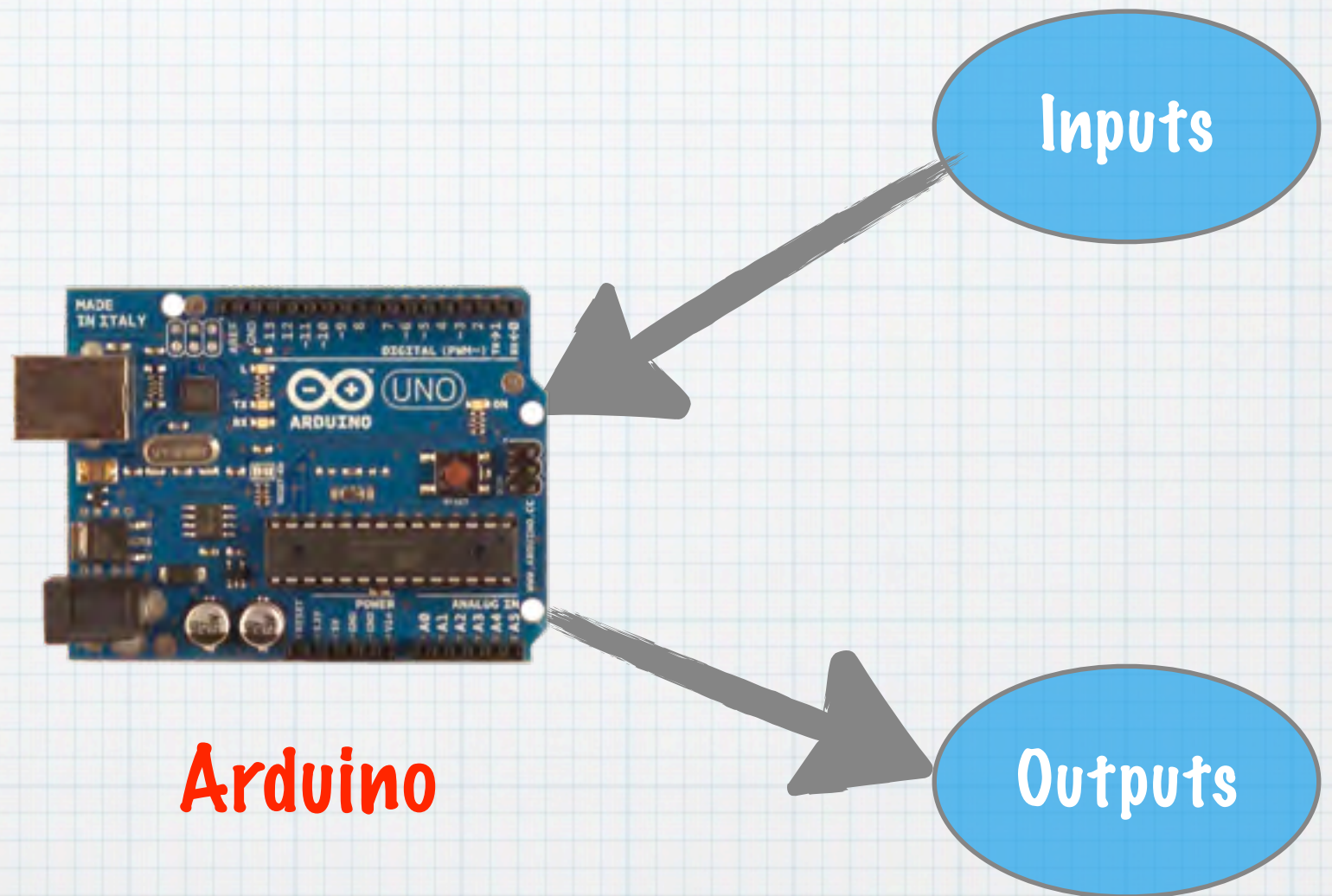
System Diagram



Arduino

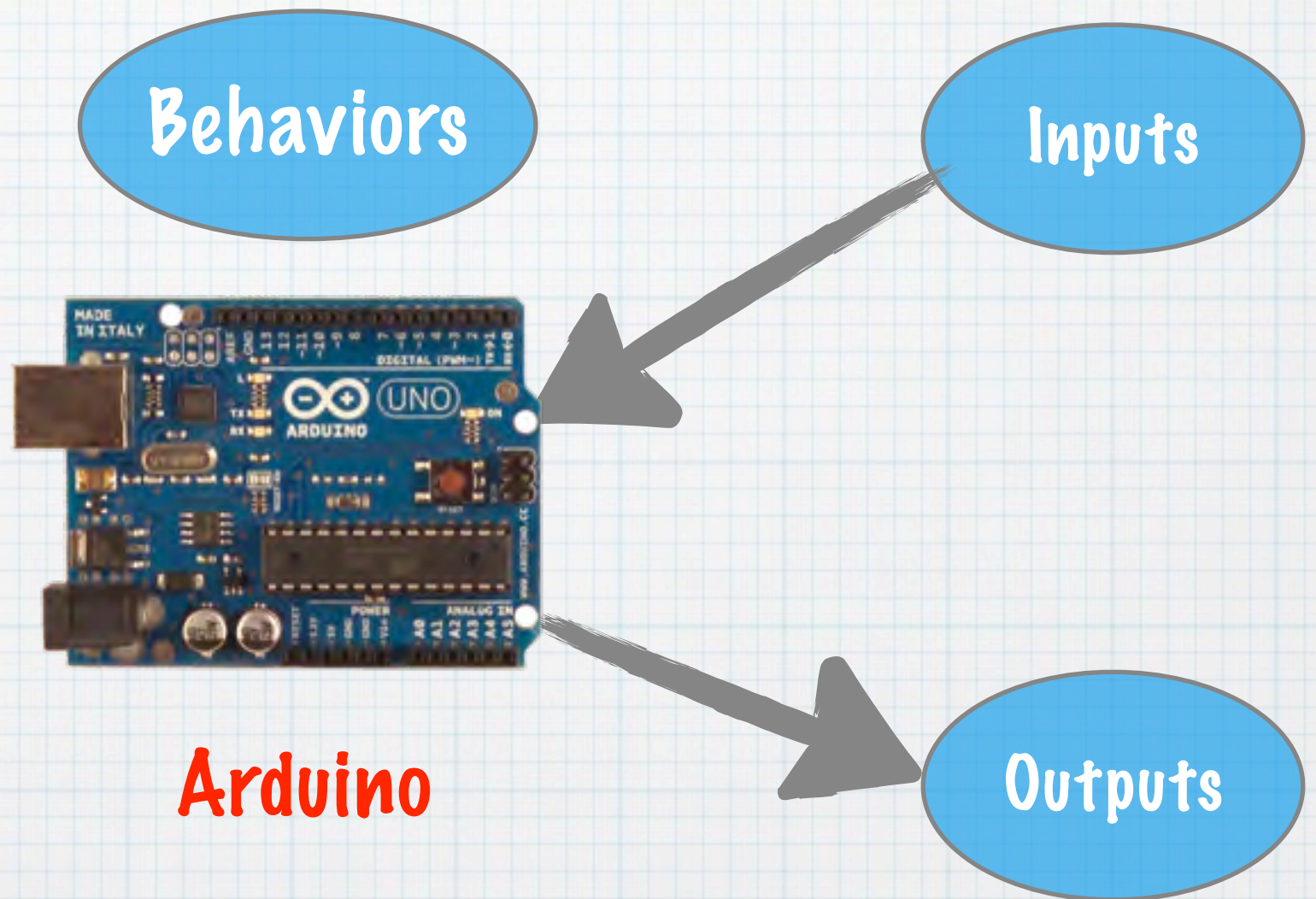
Arduino

System Diagram



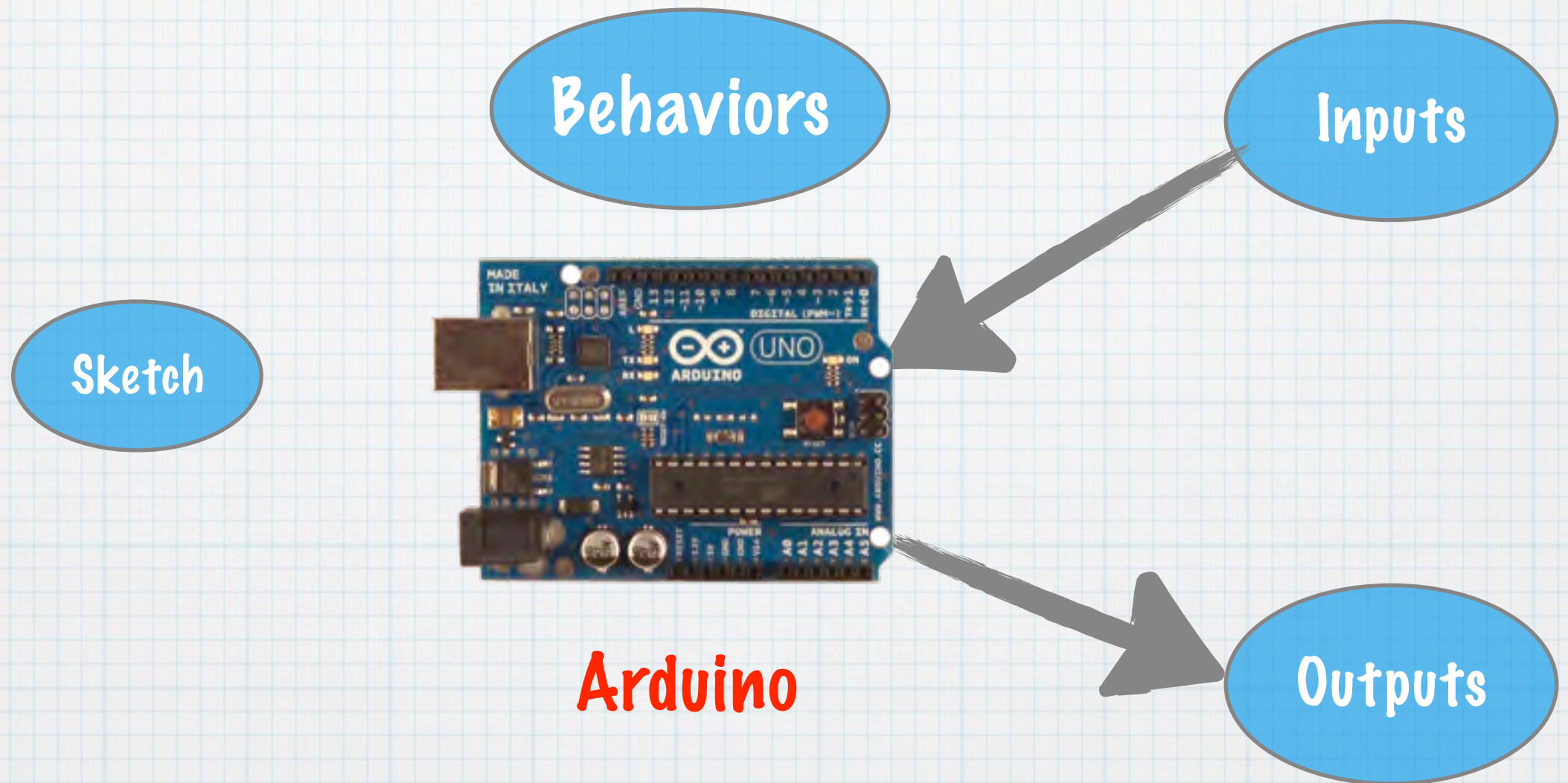
Arduino

System Diagram



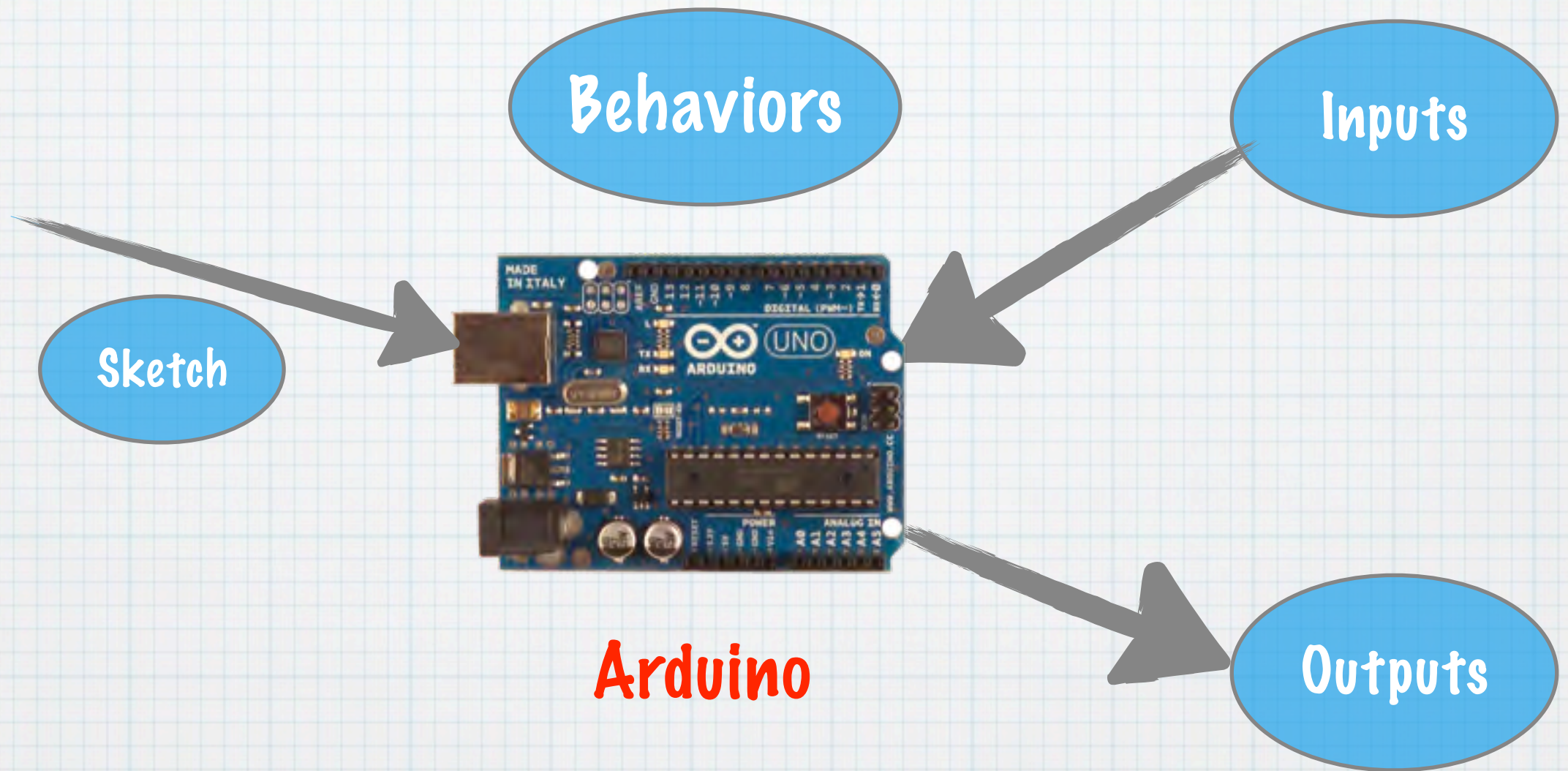
Arduino

System Diagram



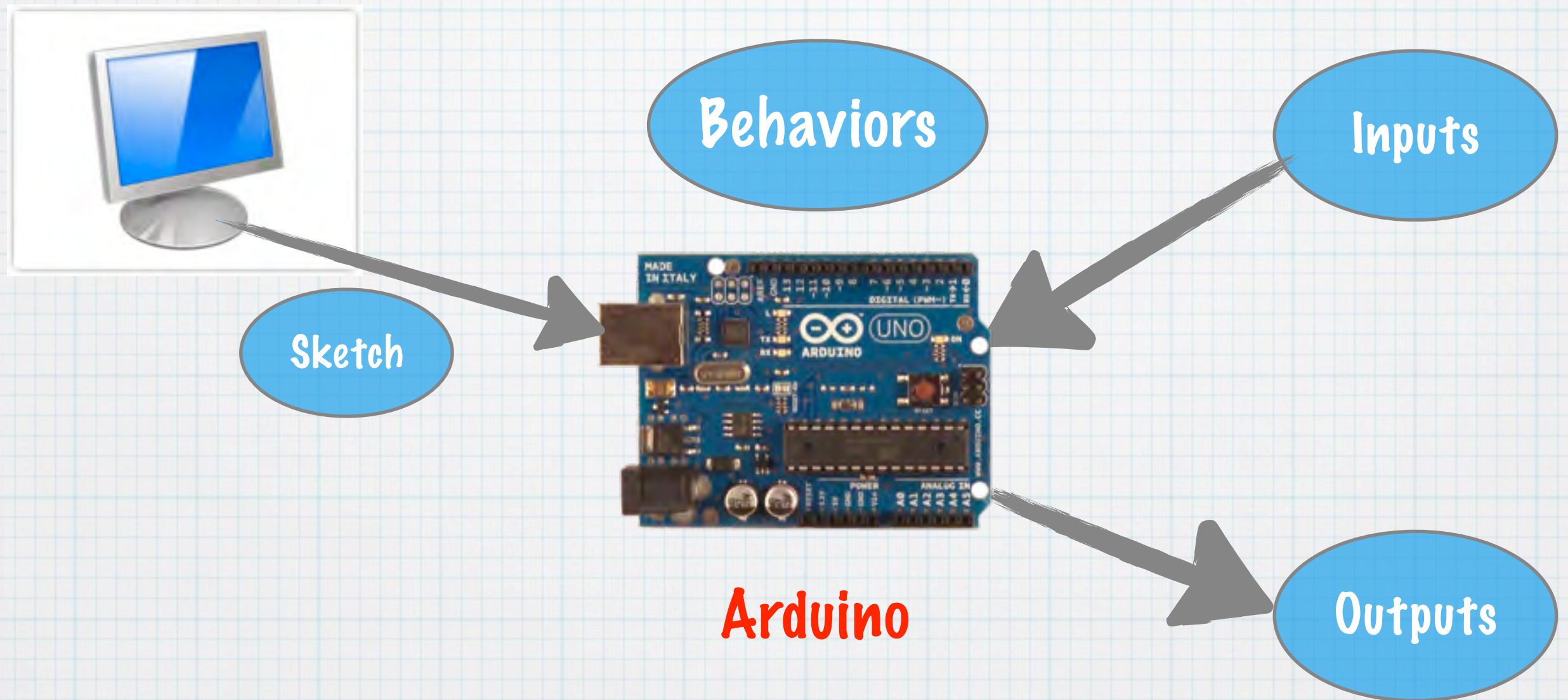
Arduino

System Diagram



Arduino

System Diagram



Arduino

System Diagram

Arduino
IDE



Sketch

Behaviors

Inputs

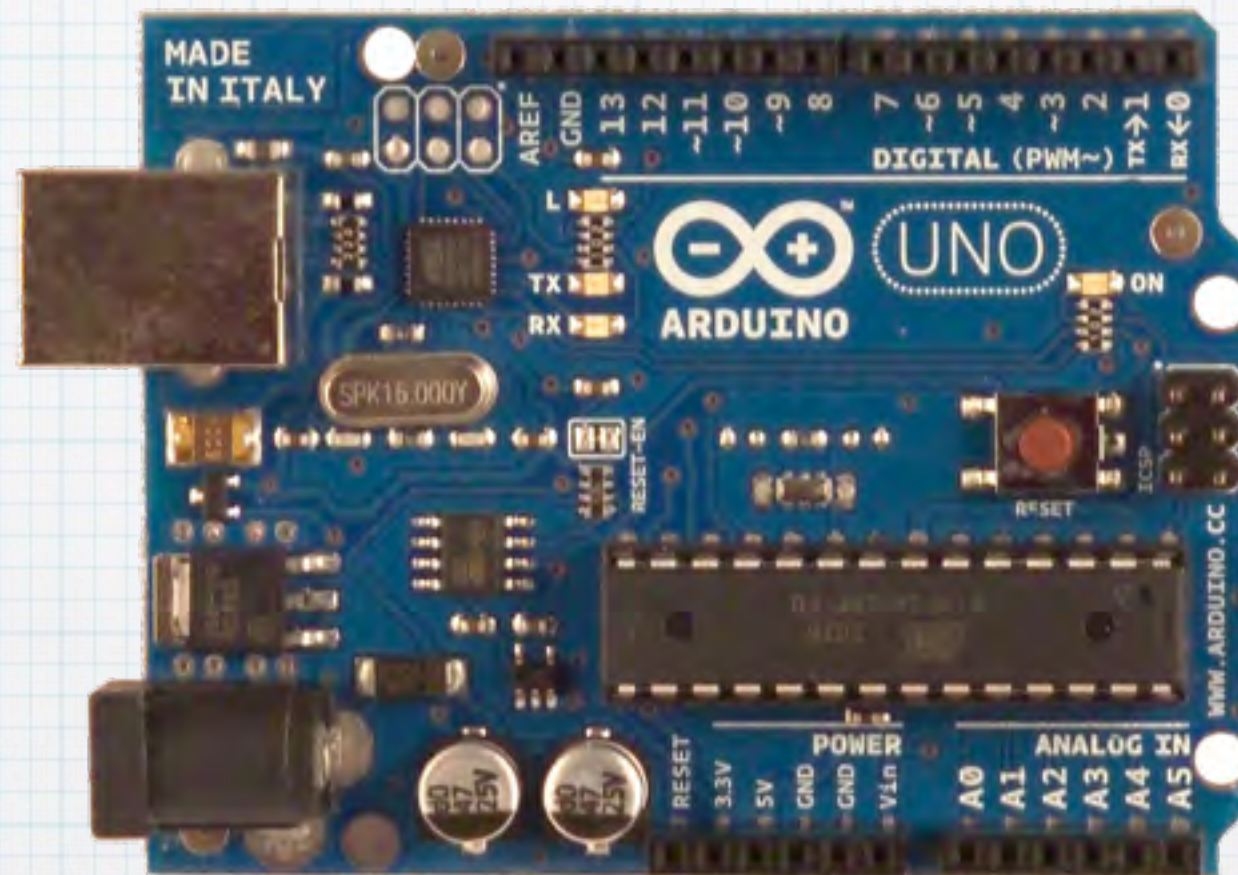


Arduino
Board

Outputs

Arduino

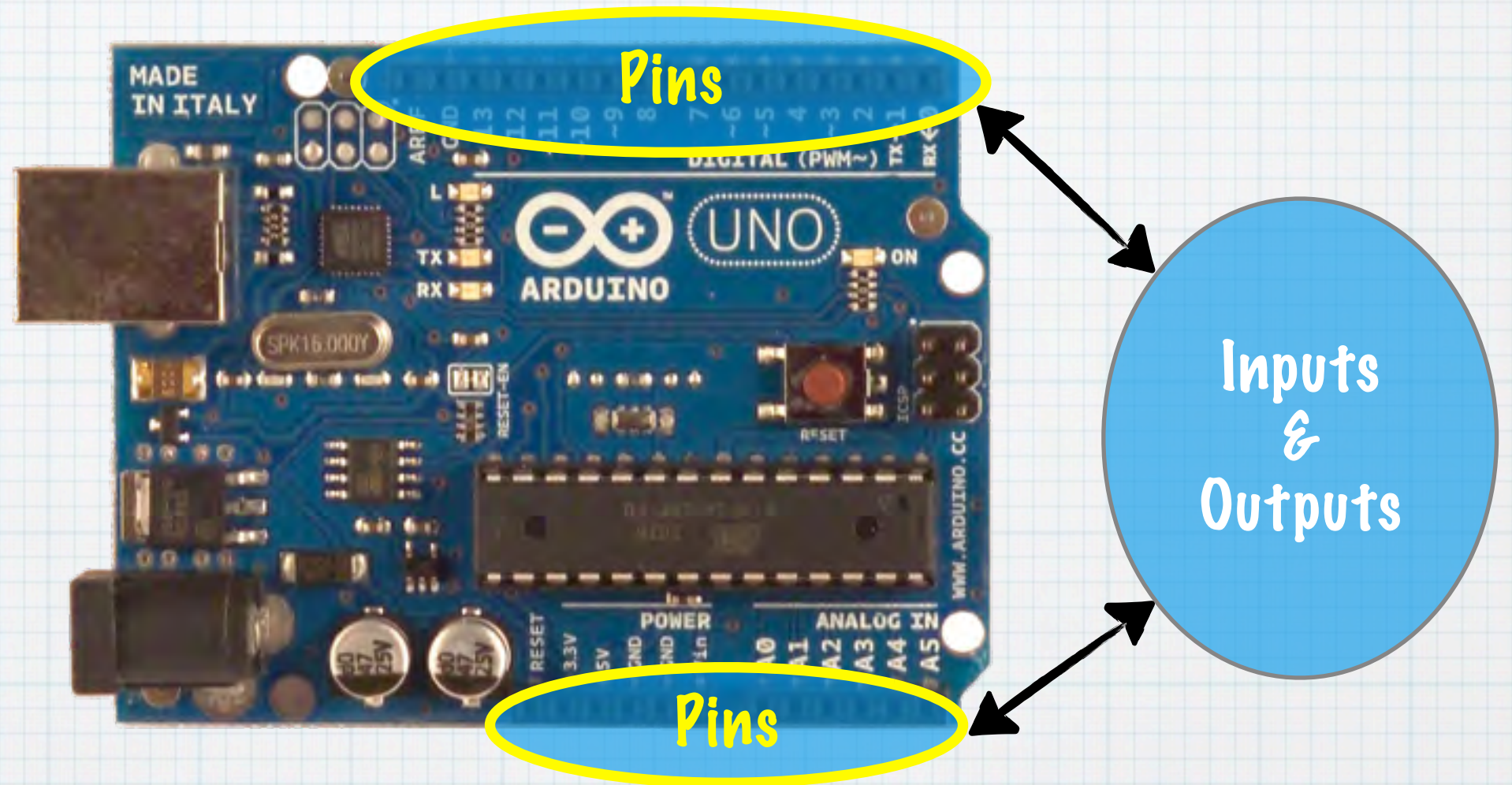
Board Details



Arduino Uno

Arduino

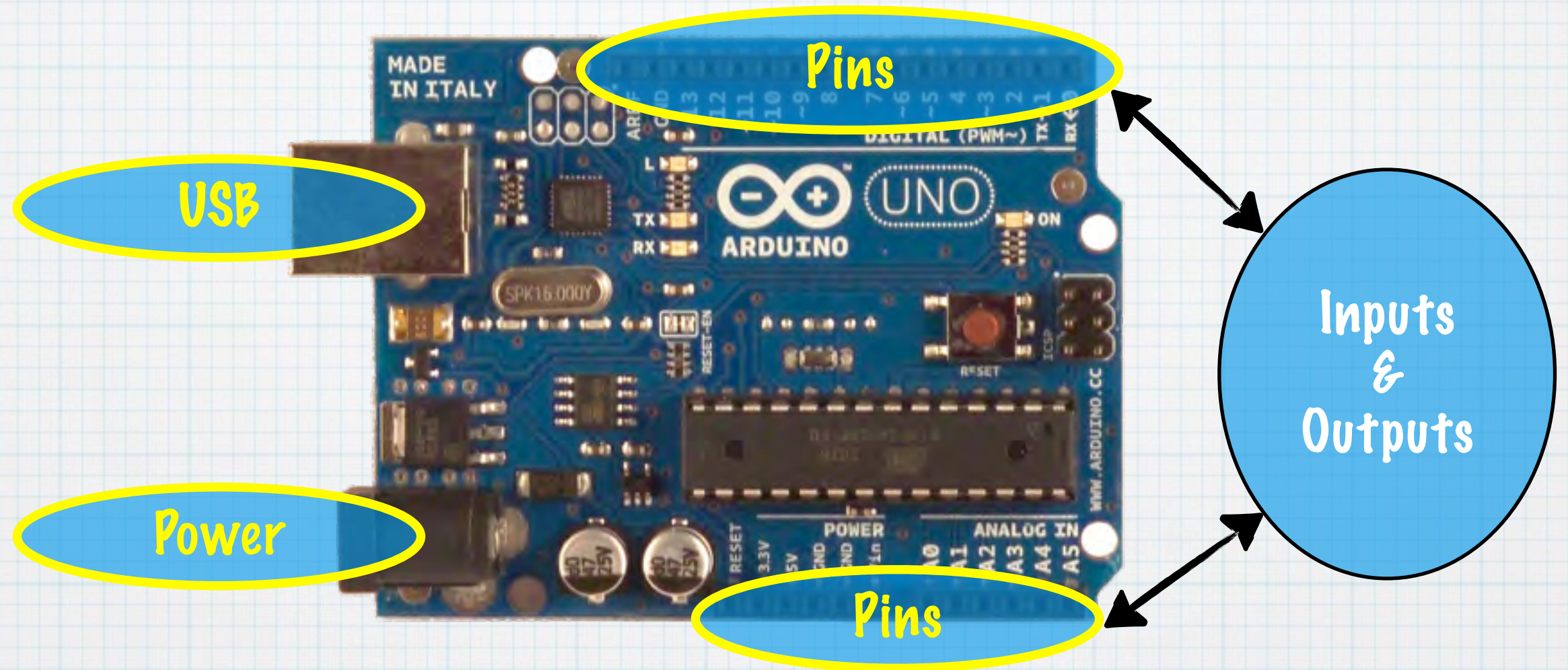
Board Details



Arduino Uno

Arduino

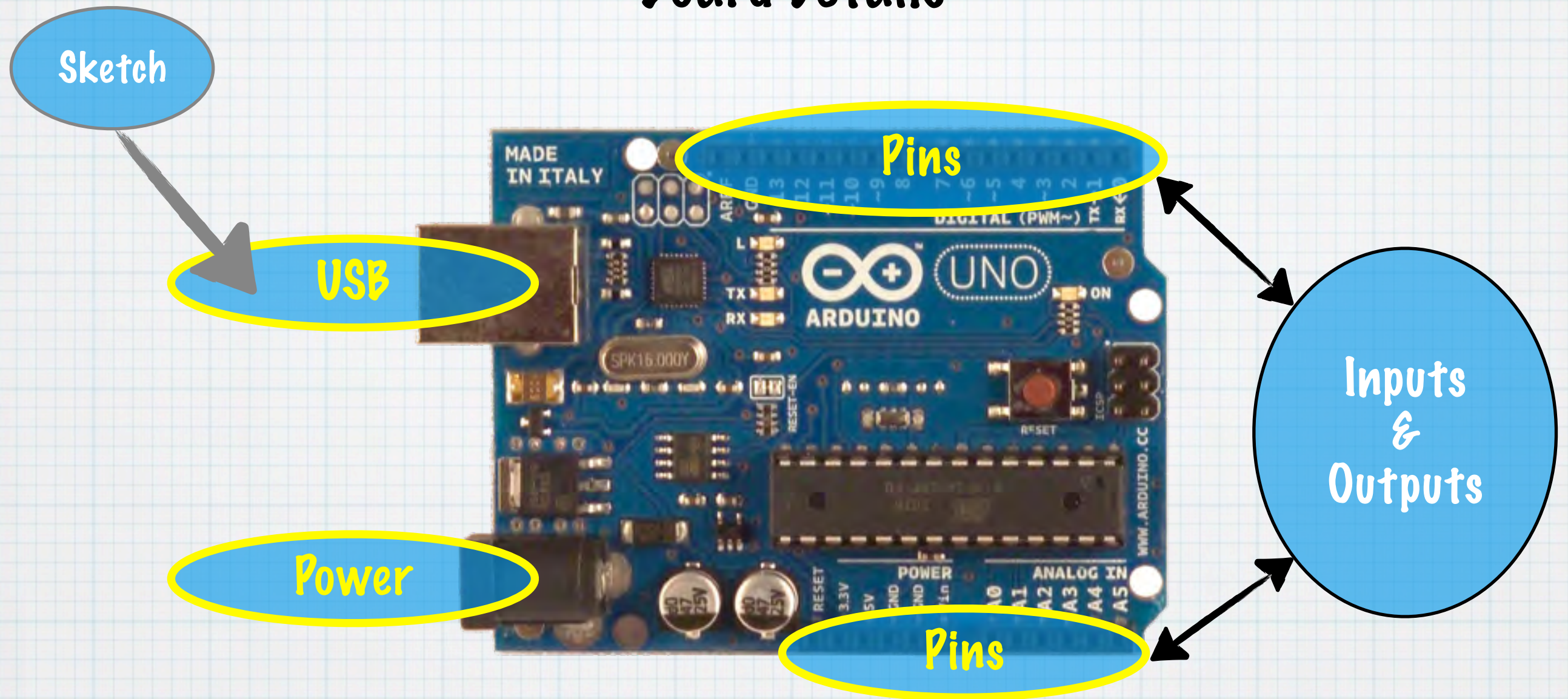
Board Details



Arduino Uno

Arduino

Board Details



Arduino Uno

Arduino

System Diagram

Arduino
IDE



Sketch

Behaviors

Inputs



Arduino
Board

Outputs

Arduino

System Diagram

Arduino
IDE



Arduino

IDE Details

Arduino
IDE

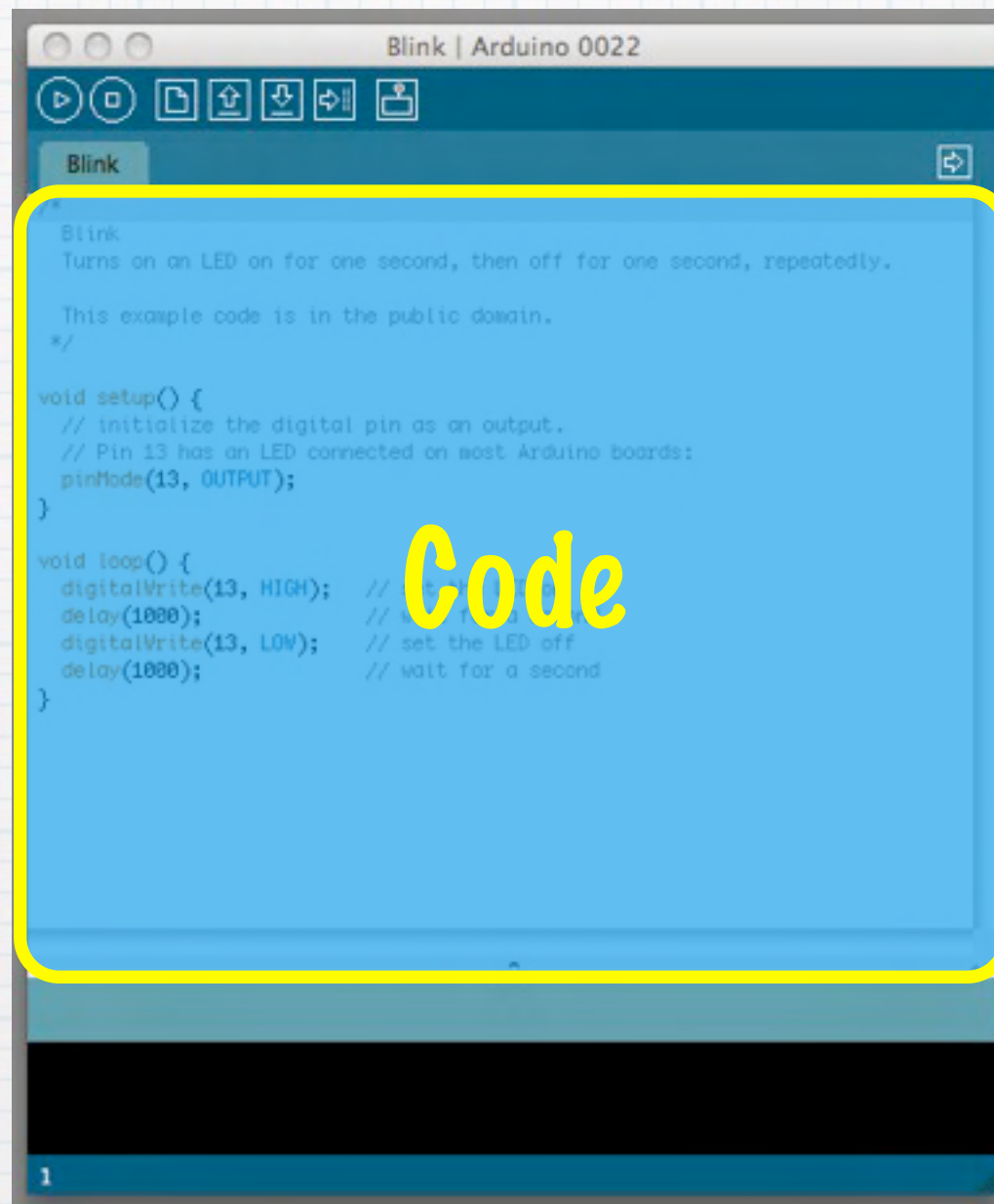


```
Blink | Arduino 0022
Blink
/*
 * Blink
 * Turns on an LED on for one second, then off for one second, repeatedly.
 *
 * This example code is in the public domain.
 */
void setup() {
  // initialize the digital pin as an output.
  // Pin 13 has an LED connected on most Arduino boards:
  pinMode(13, OUTPUT);
}

void loop() {
  digitalWrite(13, HIGH); // set the LED on
  delay(1000);           // wait for a second
  digitalWrite(13, LOW); // set the LED off
  delay(1000);           // wait for a second
}
1
```


Arduino

IDE Details



```
Blink | Arduino 0022
Blink
Turns on an LED on for one second, then off for one second, repeatedly.

This example code is in the public domain.
*/

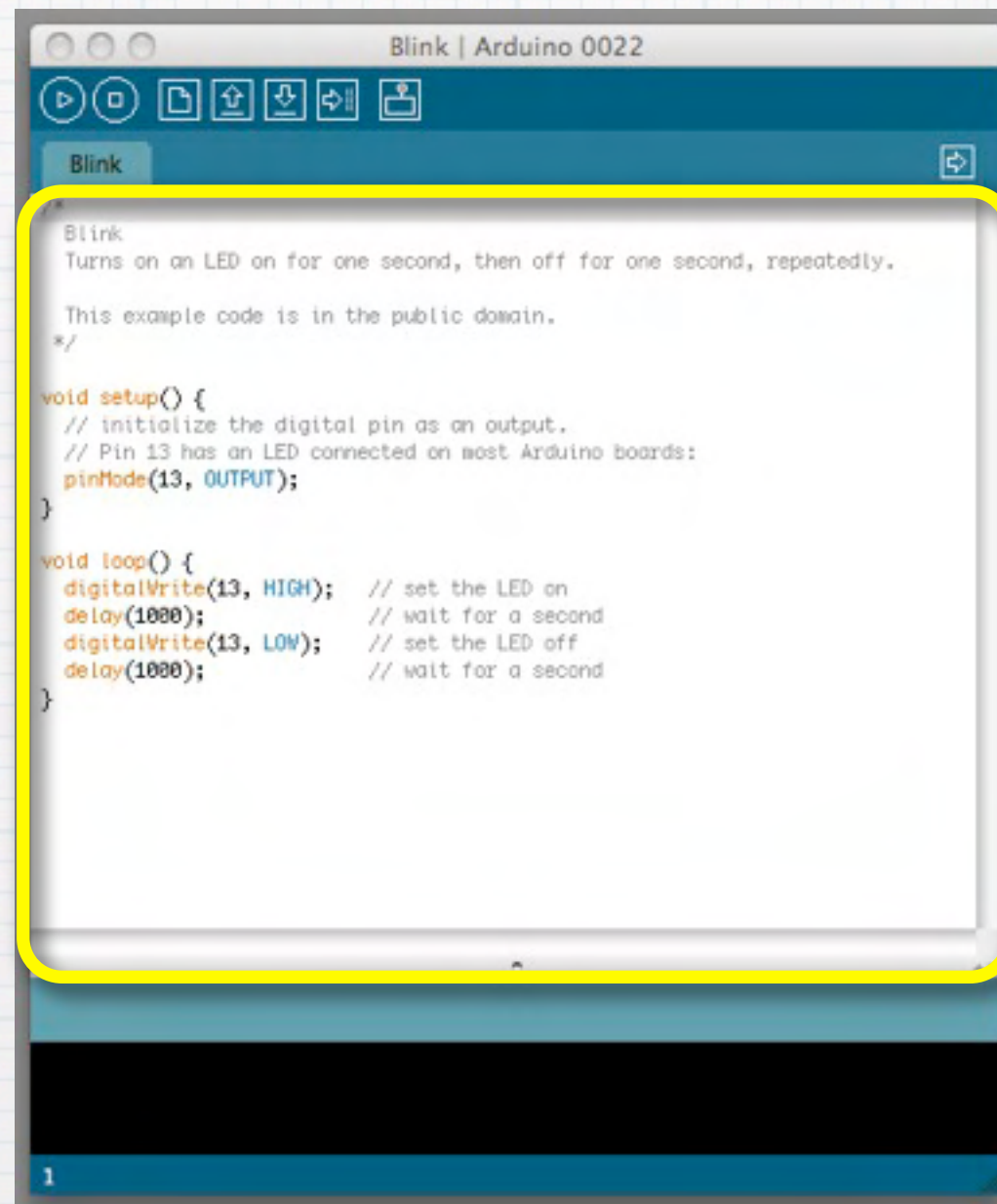
void setup() {
  // initialize the digital pin as an output.
  // Pin 13 has an LED connected on most Arduino boards:
  pinMode(13, OUTPUT);
}

void loop() {
  digitalWrite(13, HIGH); // set the LED on
  delay(1000);            // wait for a second
  digitalWrite(13, LOW); // set the LED off
  delay(1000);           // wait for a second
}
```

Code

Arduino

IDE Details



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Blink | Arduino 0022
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  delay(1000);           // wait for a second
  digitalWrite(13, LOW); // set the LED off
  delay(1000);           // wait for a second
}
```

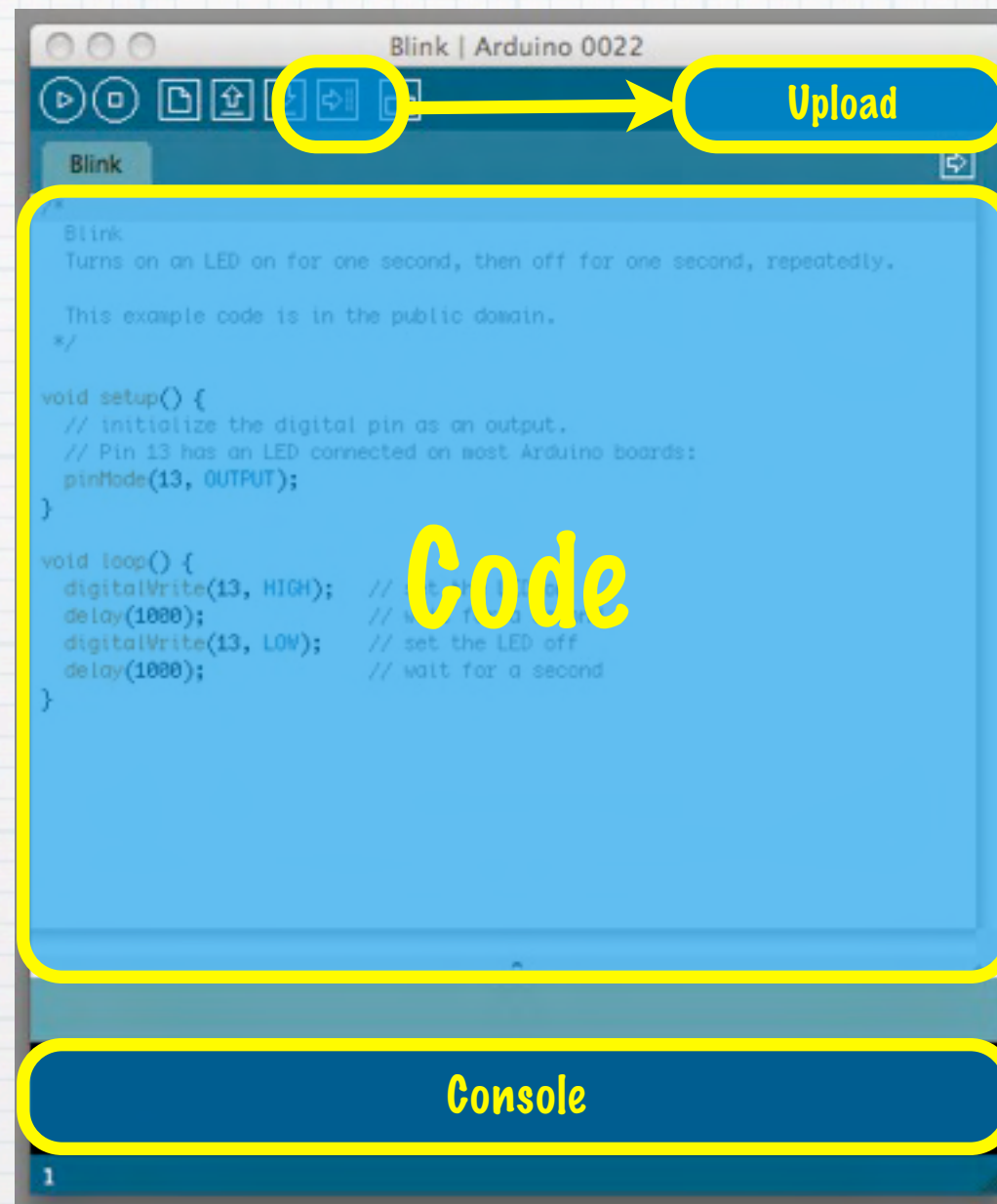

Arduino

IDE Details



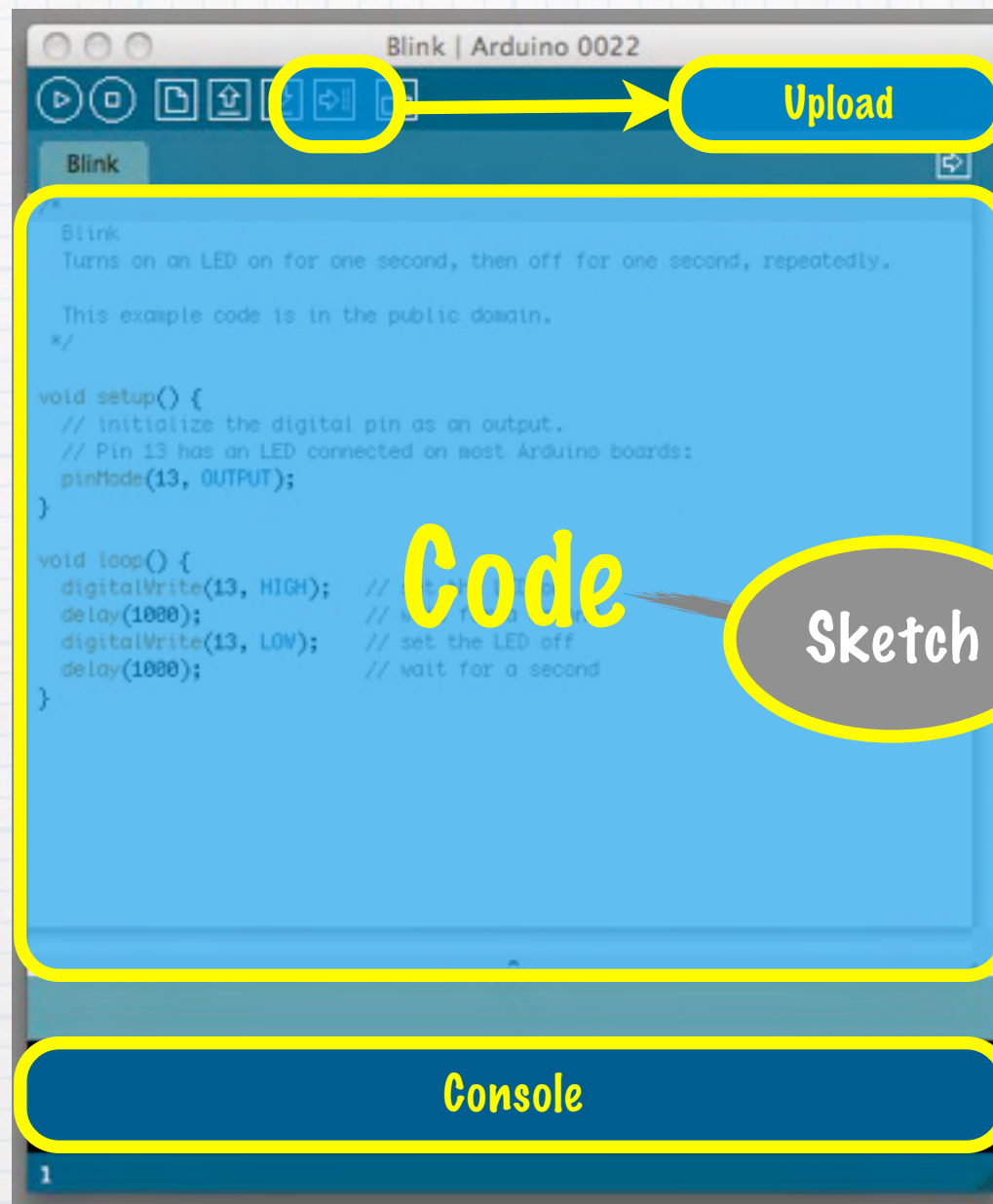
Arduino

IDE Details



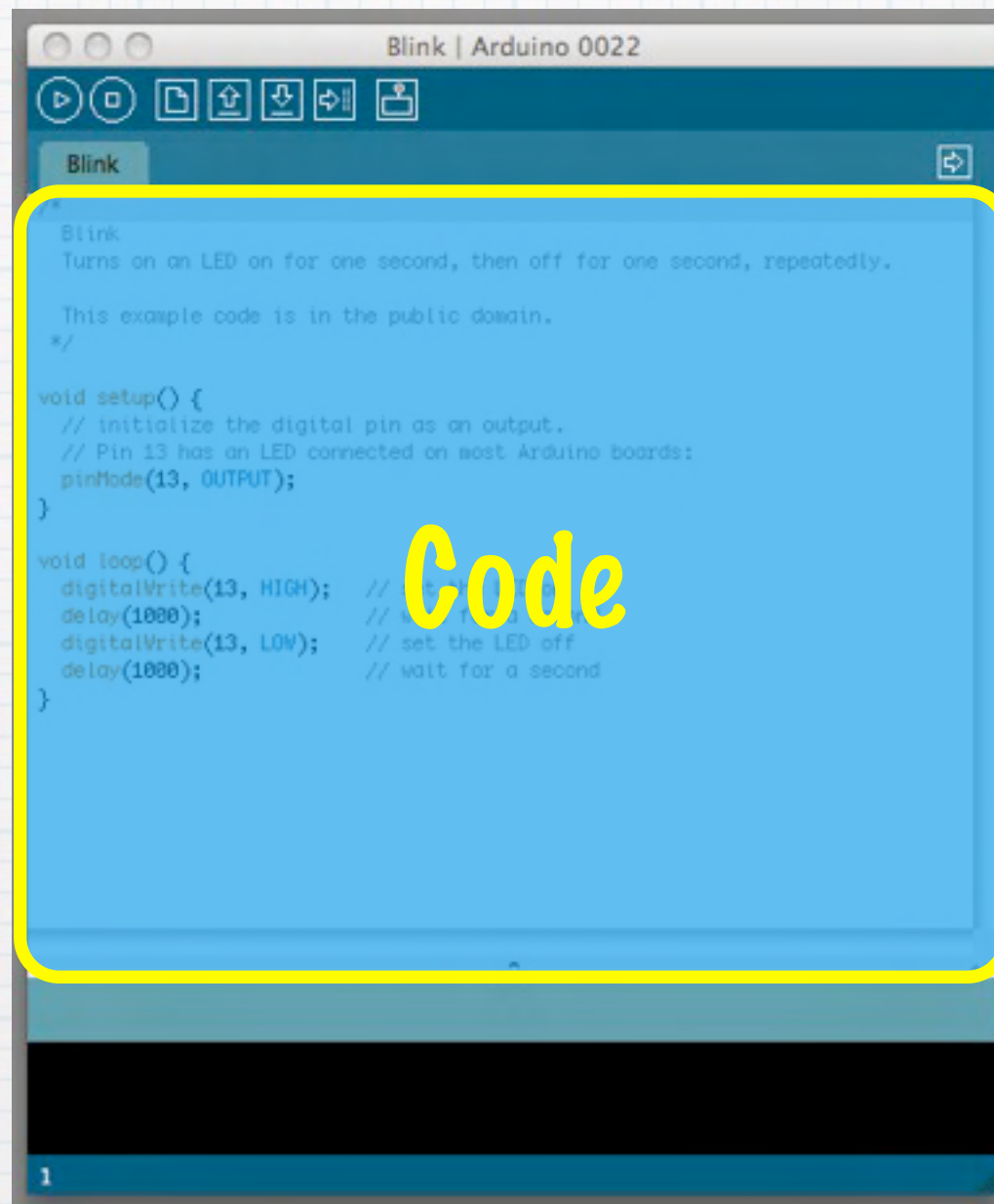
Arduino

IDE Details



Arduino

IDE Details



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Blink | Arduino 0022
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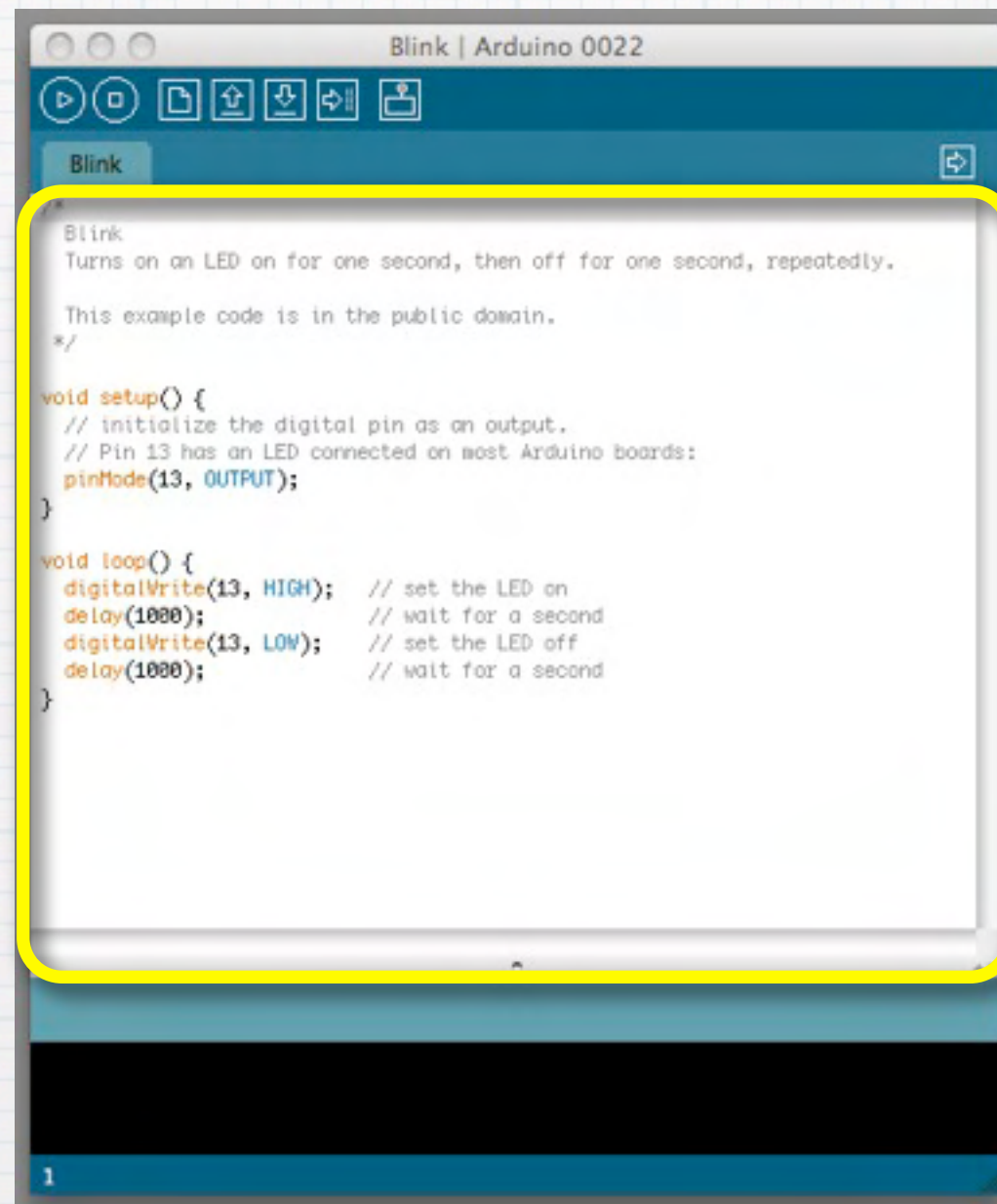
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  delay(1000);            // wait for a second
}
```

Code

Arduino

IDE Details



```
Blink | Arduino 0022
Blink
Turns on an LED on for one second, then off for one second, repeatedly.

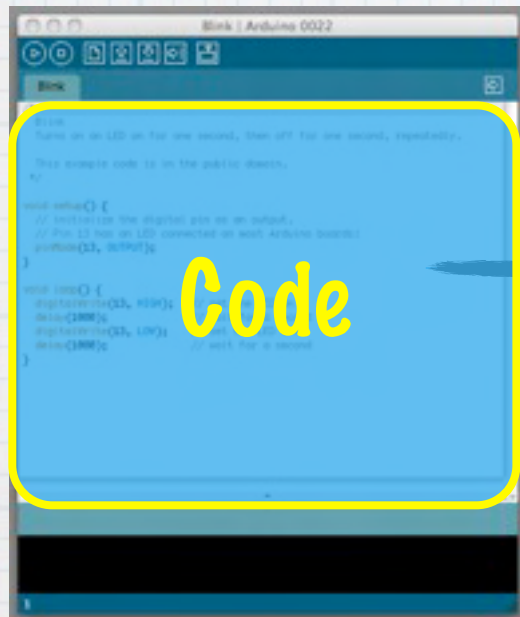
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}
```


Arduino

Code Basics



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  This example code is in the public domain.
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```


Arduino

Code Basics

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```
void loop() {
  digitalWrite(13, HIGH); // set the LED on
  delay(1000);           // wait for one second
  digitalWrite(13, LOW); // set the LED off
  delay(1000);           // wait for one second
}
```


Arduino

Code Basics

ONCE

```
/* Blink
  Turns on an LED on for one second,
  then off for one second, repeatedly.

  This example code is in the public domain.
  */
```

```
void setup() {
  // initialize the digital pin as an output.
  // pin 13 has an LED connected on most Arduino boards:
  pinMode(13, OUTPUT);
}
```

```
void loop() {
  digitalWrite(13, HIGH); // set the LED on
  delay(1000);           // wait for one second
  digitalWrite(13, LOW); // set the LED off
  delay(1000);           // wait for one second
}
```


Arduino

Code Basics

```
/* Blink
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  then off for one second, repeatedly.

  This example code is in the public domain.
  */

void setup() {
  // initialize the digital pin as an output.
  // Pin 13 has an LED connected on most Arduino boards:
  pinMode(13, OUTPUT);
}
```

FOREVER

```
void loop() {
  digitalWrite(13, HIGH); // set the LED on
  delay(1000);           // wait for one second
  digitalWrite(13, LOW); // set the LED off
  delay(1000);           // wait for one second
}
```


Arduino

Code Basics

```
/* Blink
  Turns on an LED on for one second,
  then off for one second, repeatedly.

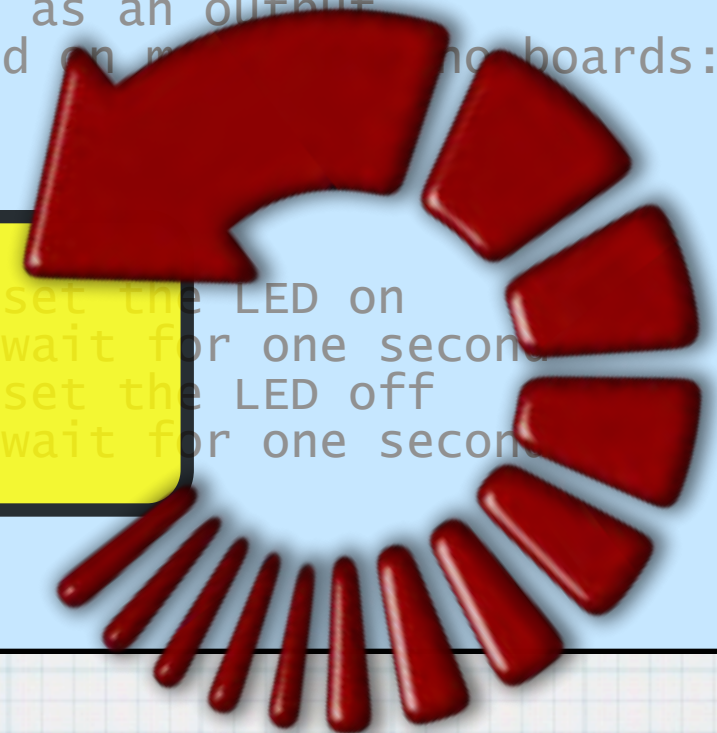
  This example code is in the public domain.
  */

void setup() {
  // initialize the digital pin as an output
  // Pin 13 has an LED connected on most boards:
  pinMode(13, OUTPUT);
}
```

```
void loop() {
  digitalWrite(13, HIGH); // set the LED on
  delay(1000);           // wait for one second
  digitalWrite(13, LOW); // set the LED off
  delay(1000);           // wait for one second
}
```

FOREVER

loop



Arduino

Code Basics

ONCE

setup

```
/* Blink
  Turns on an LED on for one second,
  then off for one second, repeatedly.

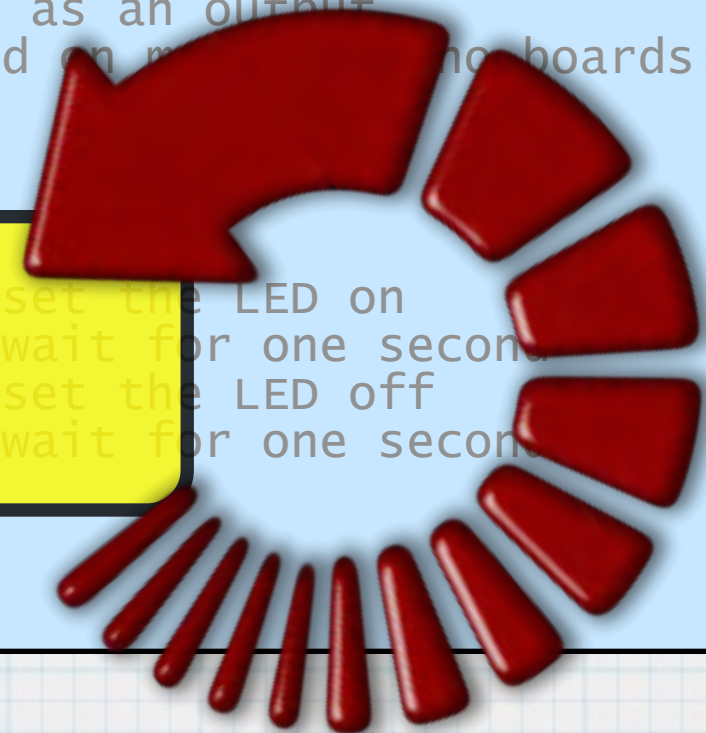
  This example code is in the public domain.
  */
```

```
void setup() {
  // initialize the digital pin as an output
  // pin 13 has an LED connected on most boards:
  pinMode(13, OUTPUT);
}
```

FOREVER

loop

```
void loop() {
  digitalWrite(13, HIGH); // set the LED on
  delay(1000);           // wait for one second
  digitalWrite(13, LOW); // set the LED off
  delay(1000);           // wait for one second
}
```



Arduino

“Hello World!”



Try It!

Blink

Turns on an LED on for one second, then off for one second, repeatedly.

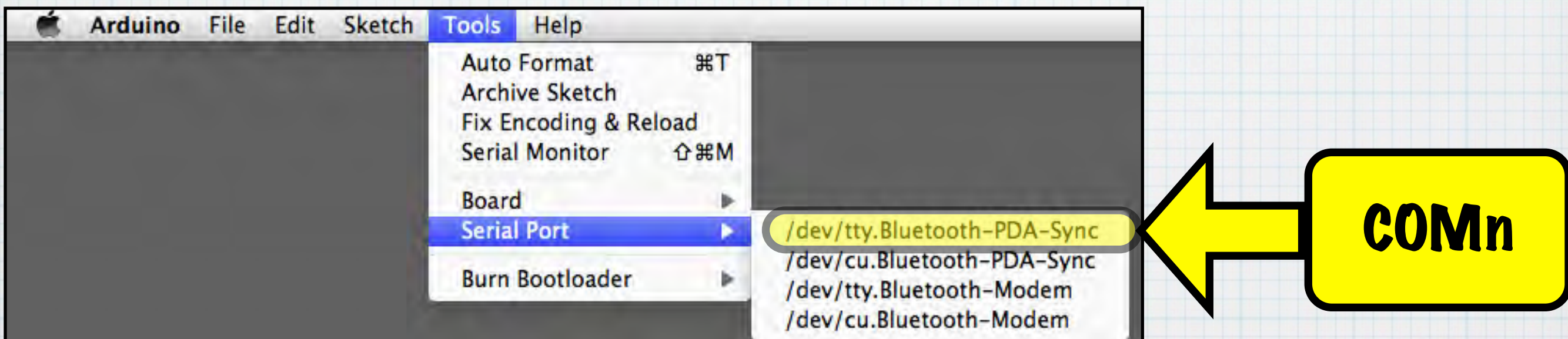
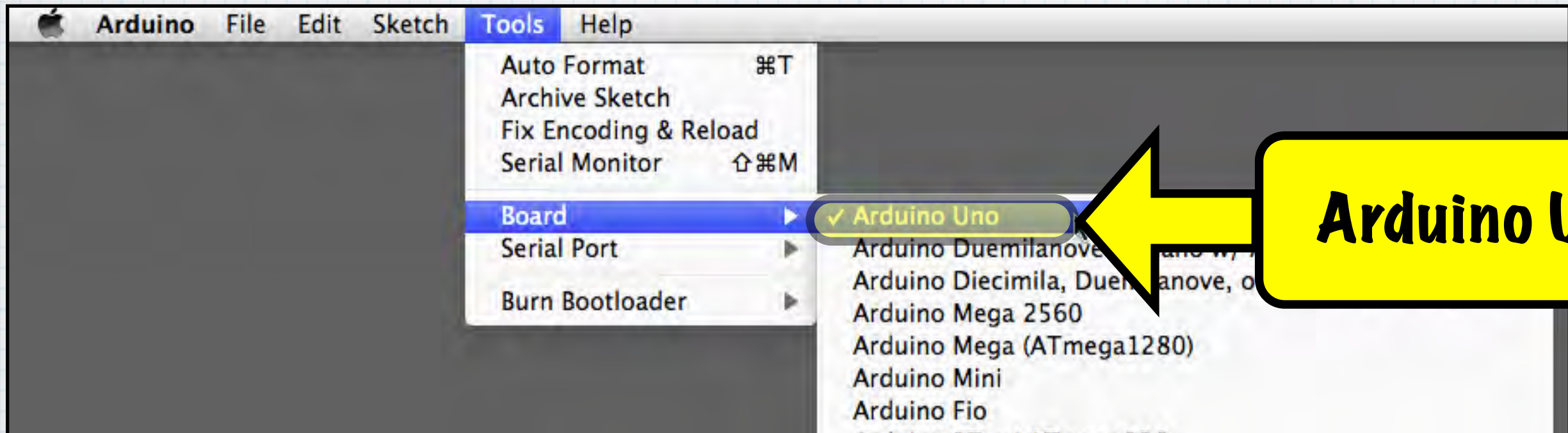
This example code is in the public domain.

*/

```
void setup() {  
  // initialize the digital pin as an output.  
  // Pin 13 has an LED connected on most Arduino boards:  
  pinMode(13, OUTPUT);  
}  
  
void loop() {  
  digitalWrite(13, HIGH); // set the LED on  
  delay(1000);           // wait for one second  
  digitalWrite(13, LOW); // set the LED off  
  delay(1000);           // wait for one second  
}
```


Arduino

“Hello World!”



Arduino

“Hello World!”

The screenshot shows the Arduino IDE interface. The 'File' menu is open, and 'Examples' is selected. The 'Blink' example is highlighted in the '1. Basics' sub-menu. A yellow arrow points from a yellow box labeled 'Blink' to the 'Blink' option in the menu. The code editor shows the following code:

```
/*
 * Blink
 * Turns on an LED on for one second, then off for one second, repeatedly.
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 * This example code is in the public domain.
 */

void setup() {
  // initialize the digital pin as an output.
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  digitalWrite(13, HIGH); // set the LED on
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  digitalWrite(13, LOW); // set the LED off
  delay(1000);           // wait for a second
}
```

Code formatted for the Arduino forum has been copied to the clipboard.

Arduino

“Hello World!”

