

## Programaciones sesión 10

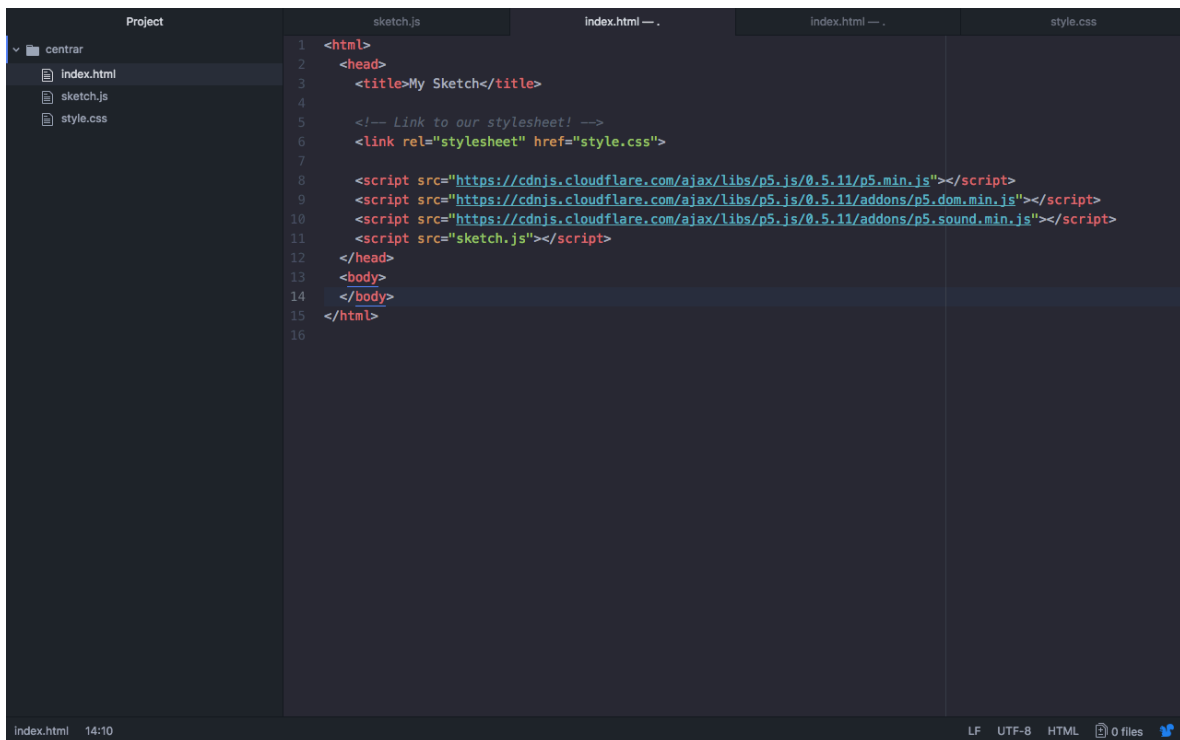
No olvides correr todas las programaciones desde localhost/...

Revisaremos algunos puntos pendientes

Centrar el canvas:

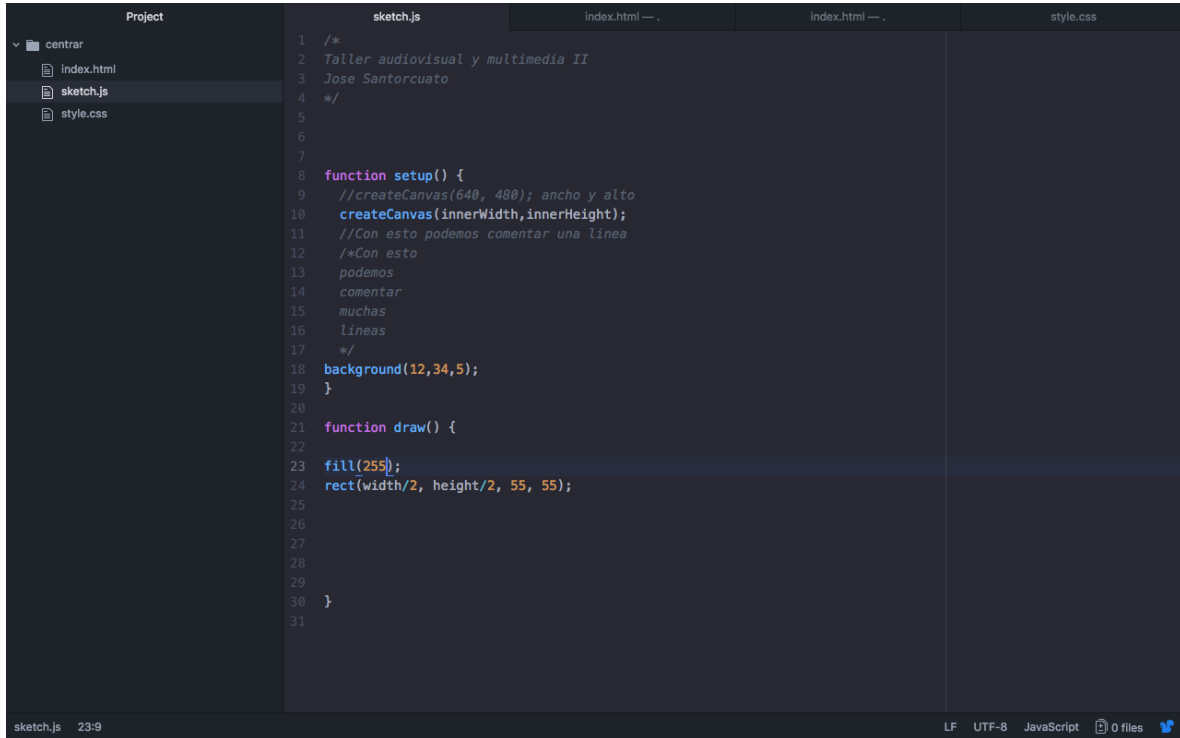
Debes modificar el index.html, el sketch y crear el archivo style.css

Index.html



```
1 <html>
2 <head>
3   <title>My Sketch</title>
4
5   <!-- Link to our stylesheet! -->
6   <link rel="stylesheet" href="style.css">
7
8   <script src="https://cdnjs.cloudflare.com/ajax/libs/p5.js/0.5.11/p5.min.js"></script>
9   <script src="https://cdnjs.cloudflare.com/ajax/libs/p5.js/0.5.11/addons/p5.dom.min.js"></script>
10  <script src="https://cdnjs.cloudflare.com/ajax/libs/p5.js/0.5.11/addons/p5.sound.min.js"></script>
11  <script src="sketch.js"></script>
12 </head>
13 <body>
14 </body>
15 </html>
16
```

## sketch.js

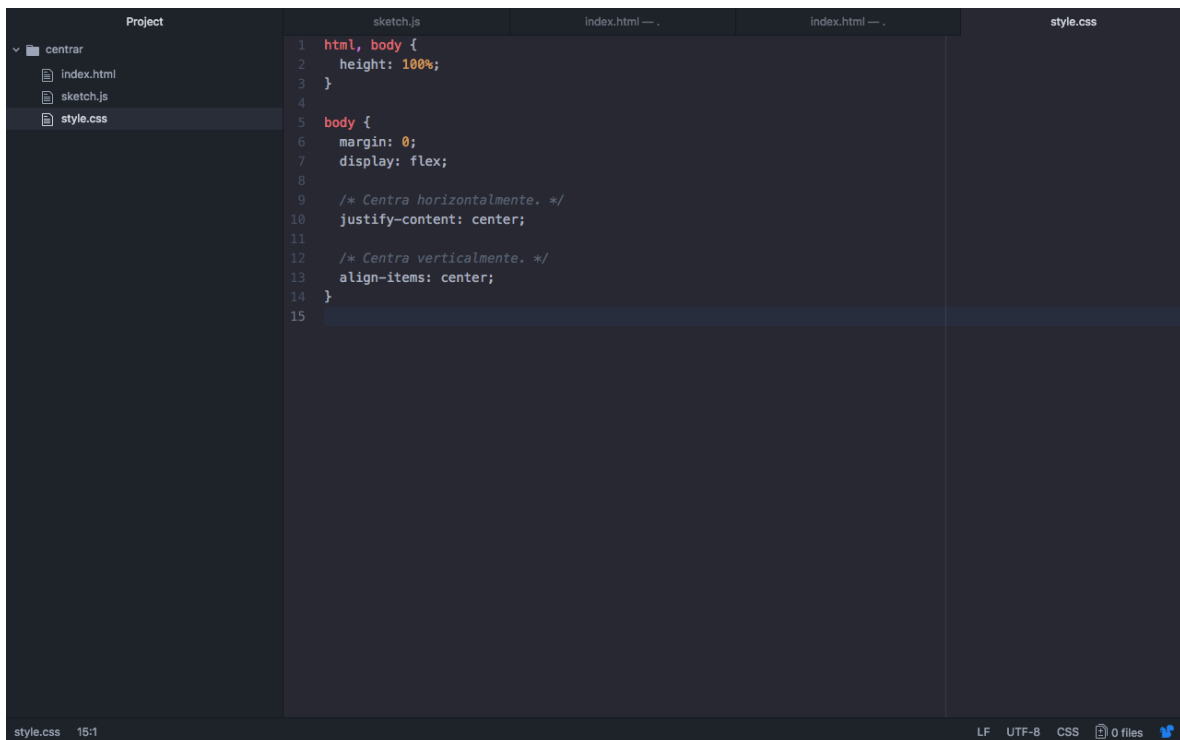


```
Project
└─ centrar
   ├─ index.html
   ├─ sketch.js
   └─ style.css

1  /*
2  Taller audiovisual y multimedia II
3  Jose Santorcuato
4  */
5
6
7
8  function setup() {
9    //createCanvas(640, 480); ancho y alto
10   createCanvas(innerWidth, innerHeight);
11   //Con esto podemos comentar una linea
12   /*Con esto
13   podemos
14   comentar
15   muchas
16   lineas
17   */
18   background(12, 34, 5);
19 }
20
21 function draw() {
22
23   fill(255);
24   rect(width/2, height/2, 55, 55);
25
26
27
28
29
30 }
31
```

sketch.js 23:9 LF UTF-8 JavaScript 0 files

## style.css



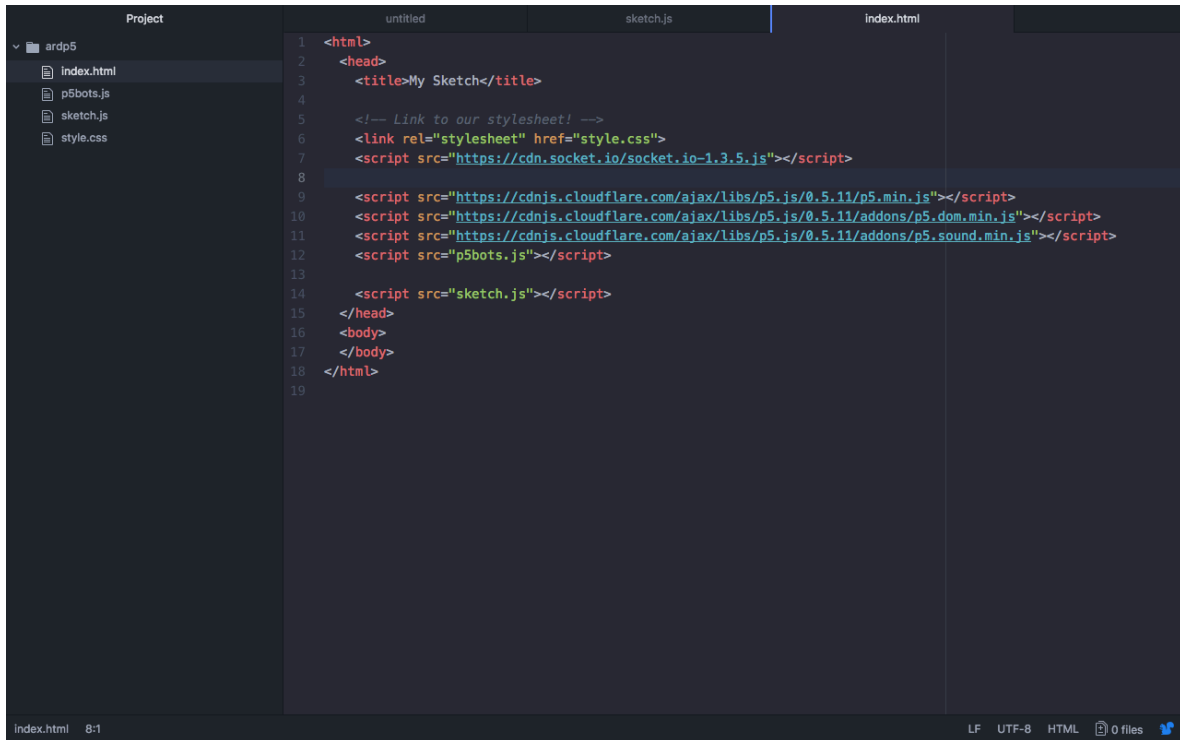
```
Project
└─ centrar
   ├─ index.html
   ├─ sketch.js
   └─ style.css

1  html, body {
2    height: 100%;
3  }
4
5  body {
6    margin: 0;
7    display: flex;
8
9    /* Centra horizontalmente. */
10   justify-content: center;
11
12   /* Centra verticalmente. */
13   align-items: center;
14 }
15
```

style.css 15:1 LF UTF-8 CSS 0 files

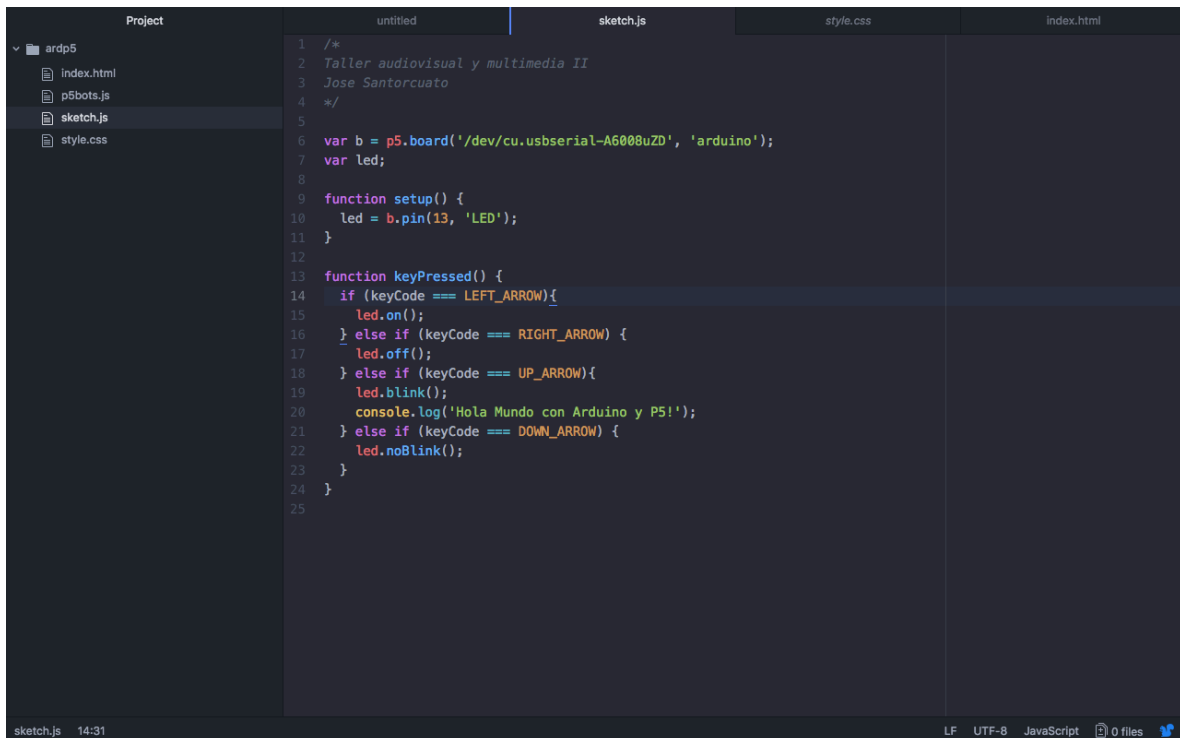
## ARDUINO P5JS

Para esta sesión he creado el directorio ardp5  
Que tiene la siguiente estructura, el index.html



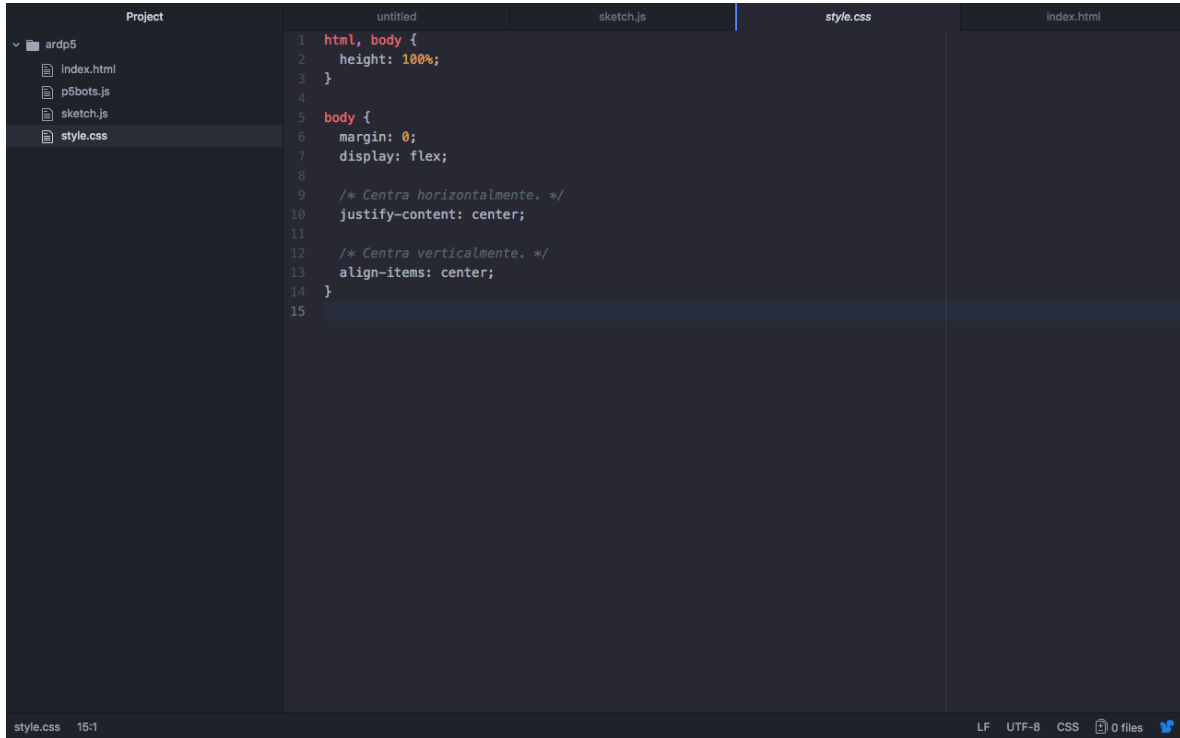
```
1 <html>
2 <head>
3   <title>My Sketch</title>
4
5   <!-- Link to our stylesheet! -->
6   <link rel="stylesheet" href="style.css">
7   <script src="https://cdn.socket.io/socket.io-1.3.5.js"></script>
8
9   <script src="https://cdnjs.cloudflare.com/ajax/libs/p5.js/0.5.11/p5.min.js"></script>
10  <script src="https://cdnjs.cloudflare.com/ajax/libs/p5.js/0.5.11/addons/p5.dom.min.js"></script>
11  <script src="https://cdnjs.cloudflare.com/ajax/libs/p5.js/0.5.11/addons/p5.sound.min.js"></script>
12  <script src="p5bots.js"></script>
13
14  <script src="sketch.js"></script>
15 </head>
16 <body>
17 </body>
18 </html>
19
```

## sketch.js



```
1 /*
2  Taller audiovisual y multimedia II
3  Jose Santorcuato
4  */
5
6  var b = p5.board('/dev/cu.usbserial-A6008uZD', 'arduino');
7  var led;
8
9  function setup() {
10    led = b.pin(13, 'LED');
11  }
12
13  function keyPressed() {
14    if (keyCode === LEFT_ARROW){
15      led.on();
16    } else if (keyCode === RIGHT_ARROW) {
17      led.off();
18    } else if (keyCode === UP_ARROW){
19      led.blink();
20      console.log('Hola Mundo con Arduino y P5!');
21    } else if (keyCode === DOWN_ARROW) {
22      led.noBlink();
23    }
24  }
25
```

## style.css



```
1 html, body {
2   height: 100%;
3 }
4
5 body {
6   margin: 0;
7   display: flex;
8
9   /* Centra horizontalmente. */
10  justify-content: center;
11
12  /* Centra verticalmente. */
13  align-items: center;
14 }
15
```

Utilizaremos la siguiente librería

<https://github.com/sarahgp/p5bots>

Librería que permite comunicar a P5.js con Arduino.

Instalar Arduino, Node.js y correr en el caso de Linux, OSX, WIN

```
brew search node
```

```
brew install node@4
```

```
npm install -g p5bots-server
```

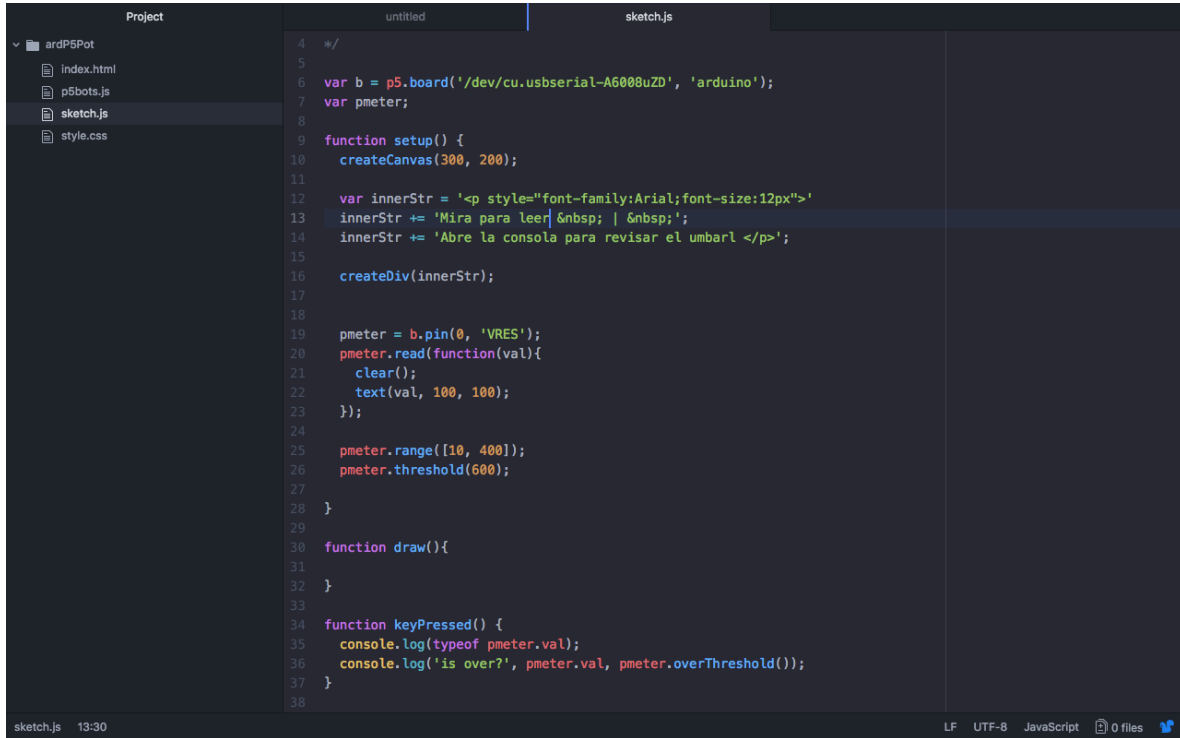
```
npm install p5bots-server // local por ejemplo en tu app
```

```
bots-go -d /Applications/XAMPP/xamppfiles/htdocs/ardp5
```

En tu navegador

localhost:8000

La siguiente programación permite leer un potenciómetro desde 5J.js



```
4  */
5
6  var b = p5.board('/dev/cu.usbserial-A6008uZD', 'arduino');
7  var pmeter;
8
9  function setup() {
10   createCanvas(300, 200);
11
12   var innerStr = '<p style="font-family:Arial;font-size:12px">'
13   innerStr += 'Mira para leer | &nbsp; | &nbsp;';
14   innerStr += 'Abre la consola para revisar el umbral </p>';
15
16   createDiv(innerStr);
17
18
19   pmeter = b.pin(0, 'VRES');
20   pmeter.read(function(val){
21     clear();
22     text(val, 100, 100);
23   });
24
25   pmeter.range([10, 400]);
26   pmeter.threshold(600);
27
28 }
29
30 function draw(){
31 }
32
33
34 function keyPressed() {
35   console.log(typeof pmeter.val);
36   console.log('is over?', pmeter.val, pmeter.overThreshold());
37 }
38
```

The image shows a code editor interface with a project sidebar on the left and a main code area. The sidebar shows a project named 'ardP5Pot' with files 'index.html', 'p5bots.js', 'sketch.js', and 'style.css'. The main area shows the 'sketch.js' file with JavaScript code for a p5.js sketch. The code initializes a board, sets up a potentiometer on pin 0, and reads its value. It also sets a range and a threshold for the potentiometer. The setup function creates a canvas and a div with some text. The draw function is empty. A keyPressed function logs the potentiometer's value and whether it's over a threshold.