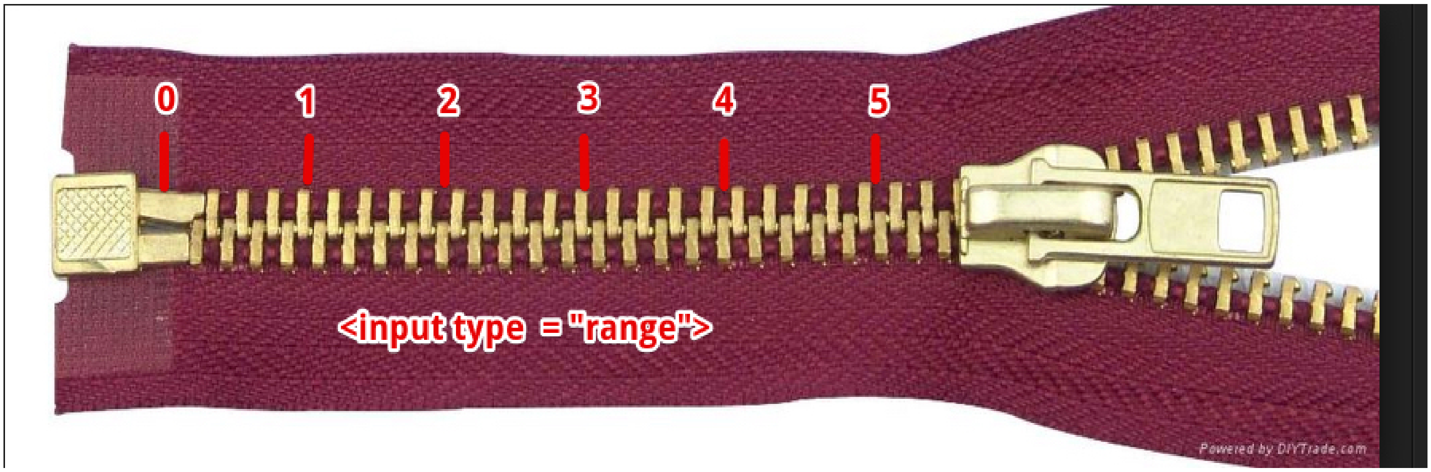
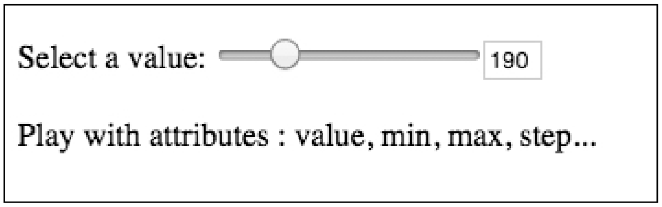
`<input type="range">`



This input type renders as a slider. It accepts the same attributes as the `<input type="number"/>` : `min`, `max`, `step` and`value`.

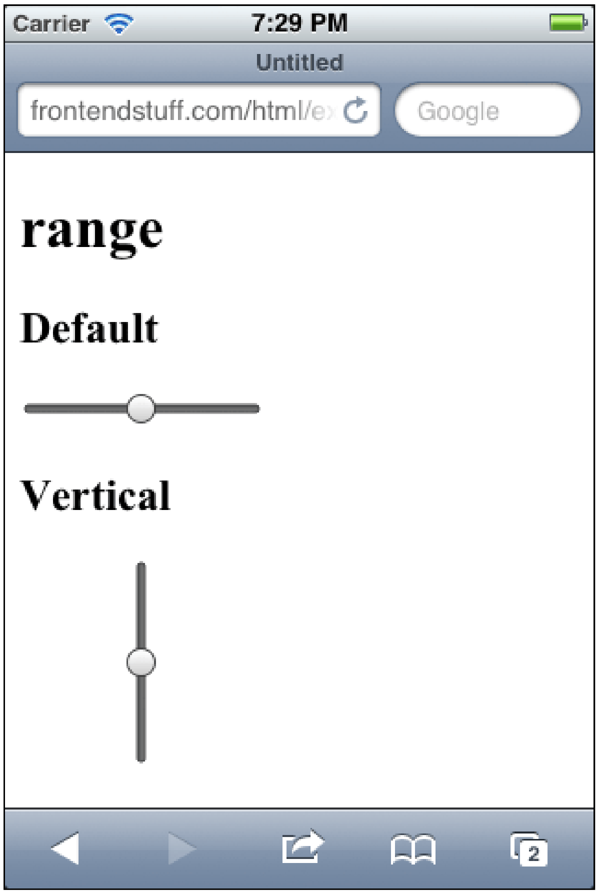
Example of rendering on a desktop:

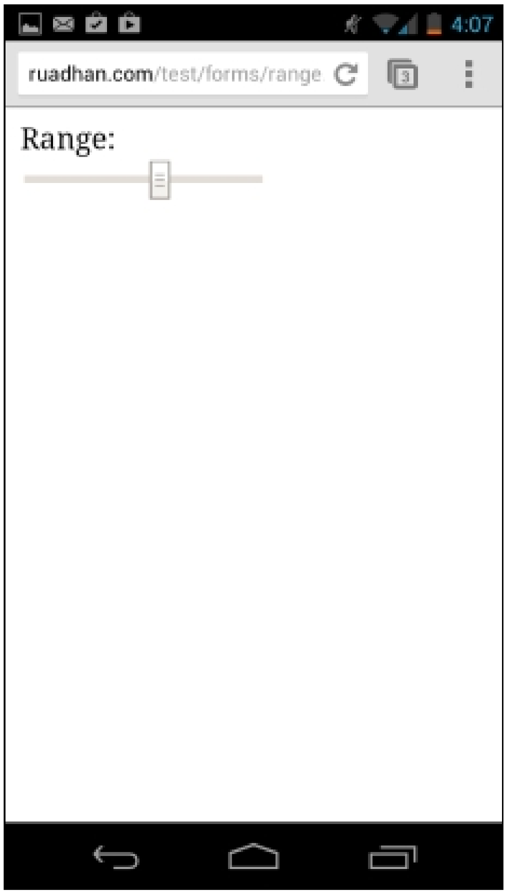


Select a value: 190

Play with attributes : value, min, max, step...

And on mobile devices: (left IOS, right Android)





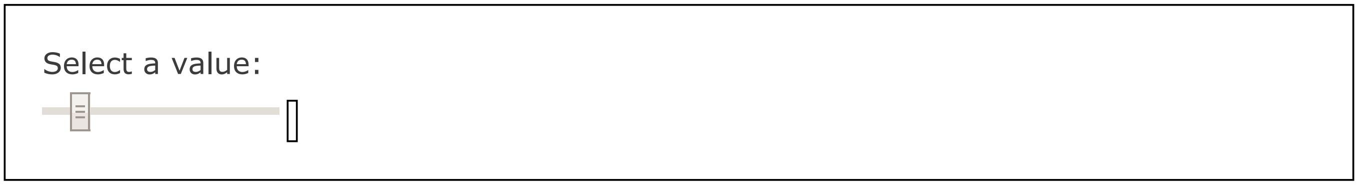
TYPICAL USE

The basic use is to specify at least the `value`, `min` and `max`attributes, eventually also the `step` attribute, like this:

```
<input id="slider6" type="range" min="0" max="10"step="2" value="5">
```

But most of the time, you will need a visual feedback that shows the current value selected by the slider.

This online example at JS Bin shows how to add a visual feedback using a very short JavaScript function and an`<output>` element. The result is the one of the first screenshot of this page, and can be tried here live in your browser, just click and drag the small cursor of the slider (or use up and down arrow keys when the field has the focus):



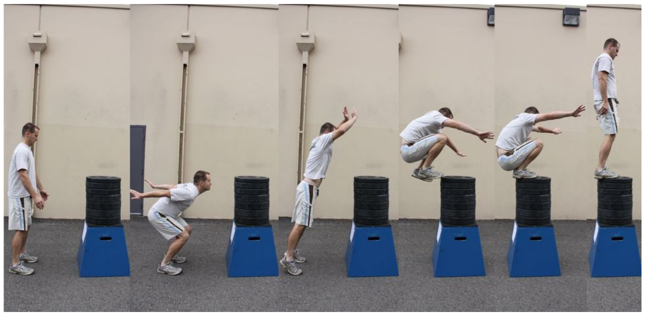
Select a value:

Source code:

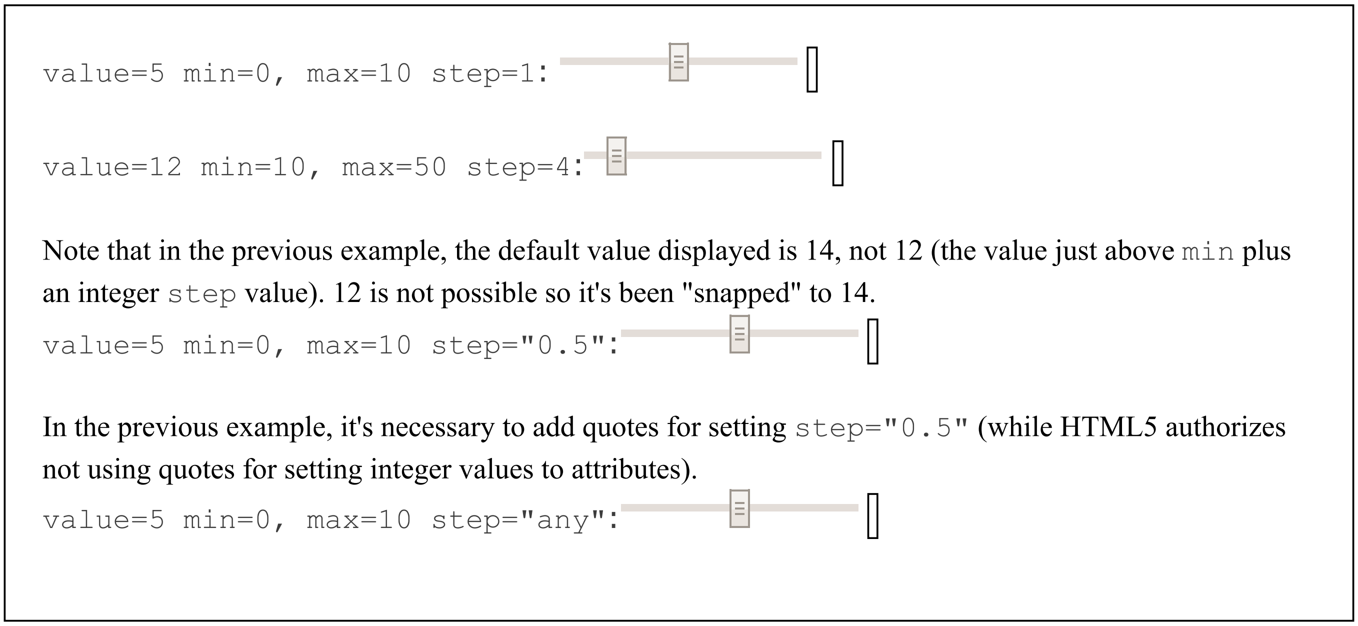
```
<!DOCTYPE html>
<html>
   <head>
      <style>
          #rangeValue1 {
              border:1px solid black;
              padding:2px;
          }
      </style>
      <script>
        window.onload = function() {
          // Called when the page is loaded, for displaying initial value in the output
          printValue('slider1','rangeValue1');
        }
        function printValue(sliderId, outputId) {
          var x = document.getElementById(outputId);
          var y = document.getElementById(sliderId);
          x.value = y.value;
        }
      </script>
</head>
<body>
  <form >
     <label for="slider1">Select a value:</label>
     <input id="slider1" type="range"
            min="100" max="500" step="10"value="150"
            oninput="printValue('slider1','rangeValue1')"/>
     <output id="rangeValue1"/>
  </form>
  <br/>
  Play with attributes: value, min, max, step...
</body>
</html>
```

SNAPPING BEHAVIOR AND THE `STEP` ATTRIBUTE

When you click and drag the slider, it "jumps" to some snap points corresponding to the integer values of the range defined by the `min` and `max`attributes, and the "size of the jumps" depends on the value of the `step` attribute.



Try here these examples and look at their behavior (complete online version is also available at JS Bin):



`value=5 min=0, max=10 step=1:`

`value=12 min=10, max=50 step=4:`

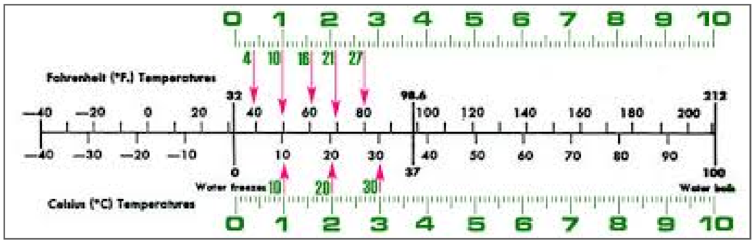
Note that in the previous example, the default value displayed is 14, not 12 (the value just above `min` plus an integer `step` value). 12 is not possible so it's been "snapped" to 14.

`value=5 min=0, max=10 step="0.5":`

In the previous example, it's necessary to add quotes for setting `step="0.5"` (while HTML5 authorizes not using quotes for setting integer values to attributes).

`value=5 min=0, max=10 step="any":`

ADDING "TICKS" TO THE RANGE SLIDER

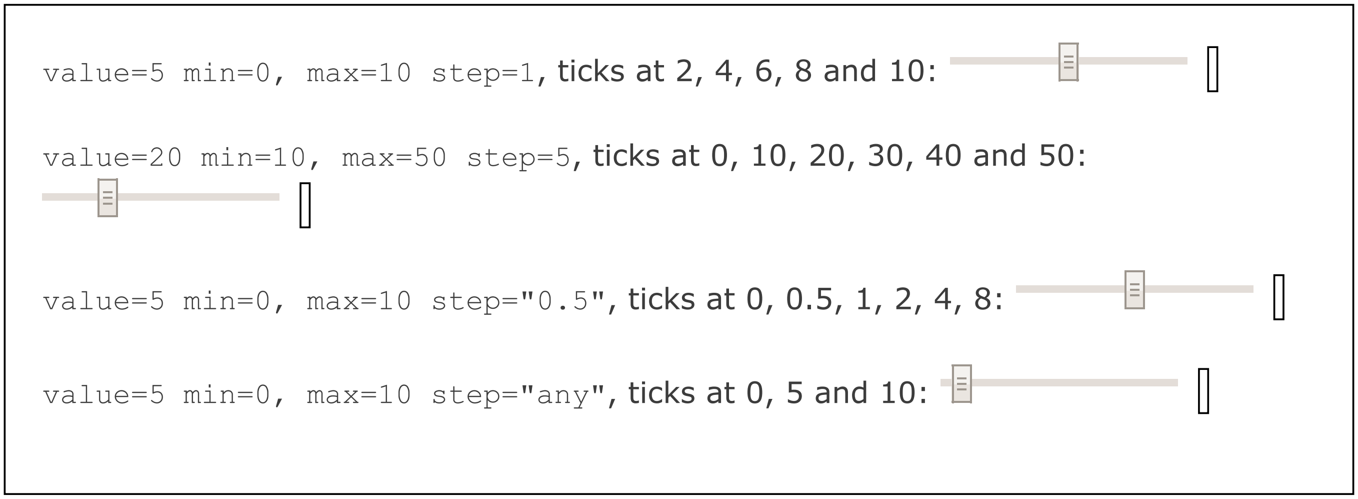


Using the `<datalist>` element, it's possible to display "ticks" above the range slider, at given positions.

```
<label for="slider2">value=5 min=0, max=10 step=1, ticks at 2, 4, 6, 8 and 10:
</label>
<input id="slider2" type="range"
      list="ticks2"
      min="0" max="10" step="1" value="5"/>
<datalist id=ticks2>
   <option>0</option>
   <option>2</option>
```

```
    <option>4</option>
    <option>6</option>
    <option>8</option>
    <option>10</option>
</datalist>
```

Here is a complete online example at JS Bin that shows multiple possibilities. You can directly try this by using the sliders just below:



`value=5 min=0, max=10 step=1`, ticks at 2, 4, 6, 8 and 10:

`value=20 min=10, max=50 step=5`, ticks at 0, 10, 20, 30, 40 and 50:

`value=5 min=0, max=10 step="0.5"`, ticks at 0, 0.5, 1, 2, 4, 8:

`value=5 min=0, max=10 step="any"`, ticks at 0, 5 and 10:

EXTERNAL RESOURCES

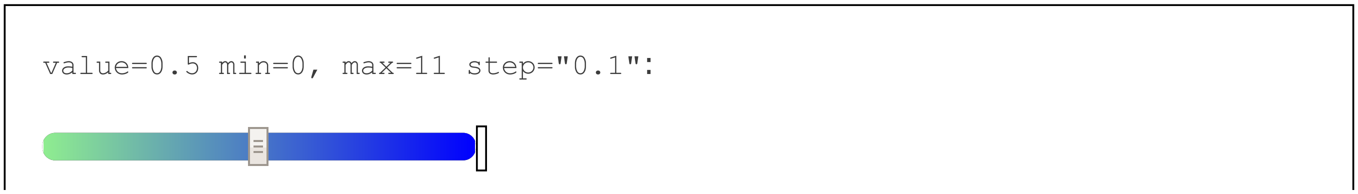
- Visit Dudley Storey's blog, and in particular his post on HTML5 sliders.
- A script with the code from the above resource, that generates automatically ticks, depending on the min, max and step attributes, codepen demonstration here: see the Pen Auto-Generated HTML5 range input Ticks by Dudley Storey (@dudleystorey) on CodePen.

STYLING THE SLIDERS

You can use CSS for "standard" styling (size, color, background color, etc), and special pseudo classes that depend on browser vendors for styling the cursor. Here are some examples of what can be done:

Example at JS Bin

Or try it here:



`value=0.5 min=0, max=11 step="0.1"`:

HTML:

```
<p>
<label for="sliderVolume">value=0.5 min=0, max=11 step="0.1":
</label><p>
<input id="sliderVolume" type="range" min="0"max="1" step="0.1" value="0.5"
oninput="printValue('sliderVolume','volumeValue')"class="custom"/>
<output id="volumeValue"/>
</p>
```

CSS:

```
.custom { // horizontal rectangle of the slider
   width: 60%;
   height:15px;
   border-radius: 8px;
   box-shadow: inset 0 0 5px #333;
   background-image:linear-gradient(to right,lightGreen, blue 100%, orange);
   transition: background 450ms;
}

/* Change the Slider Button Color Webkit (Opera, Chrome, Safari) */
.custom::-webkit-slider-thumb {
   -webkit-appearance: none !important;
   background-color: #AAA;
   background-image:
   linear-gradient(to bottom, #EEE, #AAA);
   border: 2px solid #999;
   height:30px;
   width:30px;
   border-radius: 15px;
}
/* Change the Slider Button Color FireFox */
.custom::-moz-range-thumb {
   background-color: #AAA;
   background-image:
   linear-gradient(to bottom, #EEE, #AAA);
   border: 1px solid #999;
```

```
    height:30px;
    width:30px;
    border-radius: 15px;
31. }
```

JavaScript (just for changing the linear gradient of the CSS background color, the CSS transition (line 7 of the above code) makes the color change animated/smooth:

```
 function setVolume(sliderID, textbox) {
    var x = document.getElementById(textbox);
    var y = document.getElementById(sliderID);
    x.value = y.value;
    volumeListener(sliderID);
 }

function volumeListener(id) {
    var slider=document.getElementById(id);
     var val = slider.value - slider.min / (slider.max- slider.min);
     val *= 100; // val is between 0 and 1, values of the min and max attributes
                 // We scale this to appropriate values for a gradient
     var cssProp = 'linear-gradient(to right , lightGreen, blue '+val +'%, red)';
     slider.style.backgroundImage = cssProp;
}
```

EXTERNAL RESOURCES WITH VERY IMPRESSIVE SLIDER STYLINGS

- A must see: Ana Tudor's custom range sliders

Some of her CodePens:

- See the Pen prettify ` ` #96 by Ana Tudor (@thebabydino) on CodePen.
- See the Pen prettify ` ` #99 by Ana Tudor (@thebabydino) on CodePen.
- See the Pen prettify ` ` #98 by Ana Tudor (@thebabydino) on CodePen.
- See the Pen prettify ` ` #101 by Ana Tudor (@thebabydino) on CodePen.

KNOWLEDGE CHECK 5.4.6 (NOT GRADED)

What is to be done to add "ticks" along a slider created with the <input type=range> element?

○ Using only CSS

○ Using the `datalist` element

○ Using the `step` attribute