A PharoThings Tutorial

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Layout and typography based on the `sbabook` LaTeX class by Damien Pollet.

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CHAPTER 1

Lesson 12 - Building a Webserver on Raspberry

In the previous lessons, we learned how to control LEDs, sensors, LCD displays and how to use OOP to create applications to control them and how to build a Mini-Weather Station. Now we going to build a Webserver to interact with GPIOs.

1.1 What do we need?

Components

- 1 Raspberry Pi connected to your network (wired or wireless)
- Jumper wires

1.2 Experimental theory

Before constructing any circuit, you must know the parameters of the components in the circuit, such as their operating voltage, operating circuit, etc.

1.3 Experimental procedure

1.4 HTML page

```
<html>
   <head>
      <title>Remote control</title>
      <!-- Bootstrap core CSS -->
      <link
    href="https://getbootstrap.com/docs/4.0/dist/css/bootstrap.min.css"
    rel="stylesheet">
   </head>
   <body >
      <main role="main">
         <section class="jumbotron text-center">
            <div class="container">
               <h1 class="jumbotron-heading">Remote control</h1>
               <p class="lead text-muted">Temperature: 28&deg;C</p>
               <p class="lead text-muted">Humidity: 42&#37;</p>
               <p class="lead text-muted">Pressure: 1017 hPa</p>
               <p class="lead text-muted">Fan state:
                  <button type="button" class="btn btn-success"
    disabled="disabled">ON</button>
               </p>
               <p>
                  <a href="#" class="btn btn-primary my-2">Turn
    ON</a>
                  <a href="#" class="btn btn-secondary my-2">Turn
    OFF</a>
               </p>
            </div>
         </section>
      </main>
      <!-- Bootstrap core JavaScript -->
      <script src="https://code.jquery.com/jquery-3.2.1.slim.min.js"
    integrity="sha384-KJ3o2DKtIkvYIK3UENzmM7KCkRr/rE9/Qpg6aAZGJwFDMVNA/GpGFF93hXpG5Kk
    crossorigin="anonymous"></script>
   </body>
</html>
```

This page looks like the Picture 1-1.

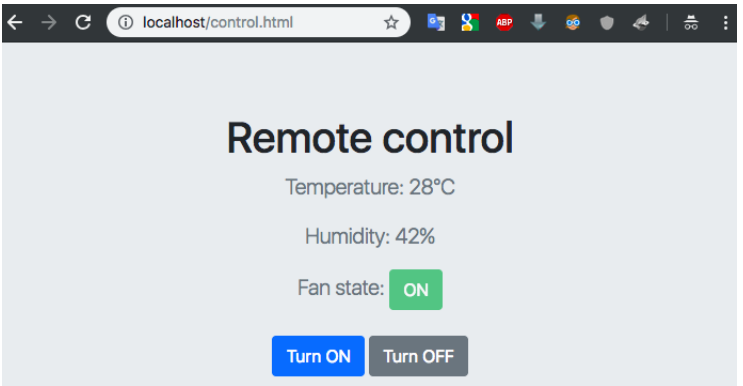

Figure 1-1 Web Page.