

NodeMCU Code for Rain Drop Indicator Station

Program is divided in two parts. first part contains ESP8266 WiFi and Hardware related functions i.e. **.ino** file.

Second part is HTML and user interface GUI. it is **index.h** file.

The **index.h** files copy here below.

```
const char MAIN_page[] PROGMEM = R"=====(
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Dofbot Widgets</title>
```

```
</head>
```

```
<style>
```

```
@import url(https://fonts.googleapis.com/css?family=Montserrat);
```

```
@import url(https://fonts.googleapis.com/css?family=Advent+Pro:400,200);
```

```
/*{margin: 0;padding: 0;}
```

```
body{
```

```
background:
```

```
#C2DFFF;
```

```
font-family:Montserrat,Arial,sans-serif;
```

```
}
```

```
h2{
```

```
font-size:14px;
```

```
}
```

```
.widget{
```

```
box-shadow:0 40px 10px 5px rgba(0,0,0,0.4);
```

```
margin:100px auto;
```

```
height: 330px;
```

```
position: relative;
```

```
width: 500px;
```

```
}
```

```
.upper{
```

```
border-radius:5px 5px 0 0;
```

```
background:#f5f5f5;
```

```
height:200px;
```

```
padding:20px;
```

```
}
```

```
.date{
```

```
font-size:40px;
```

```
}
```

```
.year{
```

```
font-size:30px;
```

```
color:#c1c1c1;
```

```
}
```

```
.place{
```

```
color:#222;
font-size:40px;
}
.lower{
background:#292826;
border-radius:0 0 5px 5px;
font-family:'Advent Pro';
font-weight:200;
height:130px;
width:100%;
}
.clock{
background:#ffcc00;
border-radius:100%;
box-shadow:0 0 0 15px #292826,0 10px 10px 5px rgba(0,0,0,0.3);
height:150px;
position:absolute;
right:25px;
top:-35px;
width:150px;
}
```

```
.hour{
background:#292826;
height:50px;
left:50%;
position: absolute;
top:25px;
width:4px;
}
```

```
.min{
background:#292826;
height:65px;
left:50%;
position: absolute;
top:10px;
transform:rotate(100deg);
width:4px;
}
```

```
.min,.hour{
border-radius:5px;
transform-origin:bottom center;
transition:all .5s linear;
}
```

```
.infos{
list-style:none;
}
.info{
color:#fff;
float:left;
height:100%;
padding-top:10px;
text-align:center;
width:33%;
}
.info span{
display:inline-block;
font-size:40px;
margin-top:20px;
}
.weather p {
font-size:20px;padding:10px 0;
}
.anim{animation:fade .8s linear;}
```

```
@keyframes fade{
0%{opacity:0;}
100%{opacity:1;}
}
```

```
a{
text-align:center;
text-decoration:none;
color:white;
font-size:15px;
font-weight:500;
}
</style>
<body>
```

```
<div class="widget">
<div class="clock">
<div class="min" id="min"></div>
<div class="hour" id="hour"></div>
</div>
<div class="upper">
<div class="date" id="date">21 March</div>
```

```

<div class="year">Temperature</div>
<div class="place update" id="temperature">23 &deg;C</div>
</div>
<div style="text-align: center;"><a href="LIVE WEATHER STATION"
style="align:center">LIVE WEATHER STATION</a></div>
<div class="lower">
<ul class="infos">
<li class="info temp">
<h1 class="title">TEMPERATURE</h1>
<span class='update' id="temp">21 &deg;C</span>
</li>
<li class="info humidity">
<h1 class="title">HUMIDITY</h1>
<span class='update' id="humidity">23%</span>
</li>
<li class="info wind">
<h1 class="title">RAIN</h1>
<span class='update' id="rain">0%</span>
</li>
</ul>
</div>
</div>

```

```

<script>
setInterval(drawClock, 2000);
function drawClock(){
var now = new Date();
var hour = now.getHours();
var minute = now.getMinutes();
var second = now.getSeconds();
//Date
var options = {year: 'numeric', month: 'long', day: 'numeric' };
var today = new Date();
document.getElementById("date").innerHTML = today.toLocaleDateString("en-US",
options);
//hour
var hourAngle = (360*(hour/12))+((360/12)*(minute/60));
var minAngle = 360*(minute/60);
document.getElementById("hour").style.transform = "rotate("+hourAngle+"deg)";
//minute
document.getElementById("min").style.transform = "rotate("+minAngle+"deg)";

```

```

//Get Humidity Temperature and Rain Data
var xhttp = new XMLHttpRequest();
xhttp.onreadystatechange = function() {
if (this.readyState == 4 && this.status == 200) {
var txt = this.responseText;
var obj = JSON.parse(txt); //Ref: https://www.w3schools.com/js/js_json_parse.asp

```

```
document.getElementById("rain").innerHTML = obj.Rain + "%";
document.getElementById("temperature").innerHTML =
Math.round(obj.Temperature) + "&deg;C";
document.getElementById("temp").innerHTML = Math.round(obj.Temperature) +
"&deg;C";
document.getElementById("humidity").innerHTML = Math.round(obj.Humidity) + "%";
}
};
xhr.open("GET", "readADC", true); //Handle readADC server on ESP8266
xhr.send();
}
</script>
</body>
</html>
)=====";
```