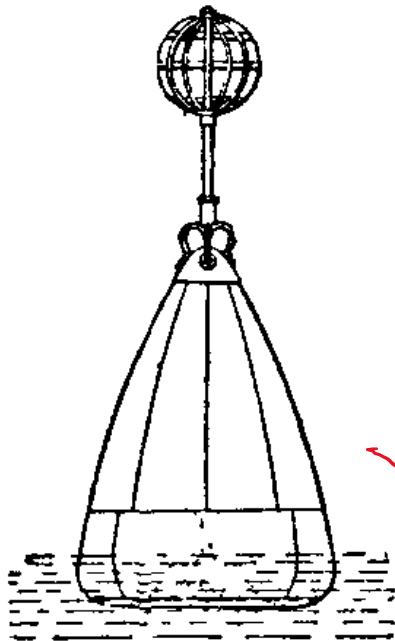


Magic Mirror Module

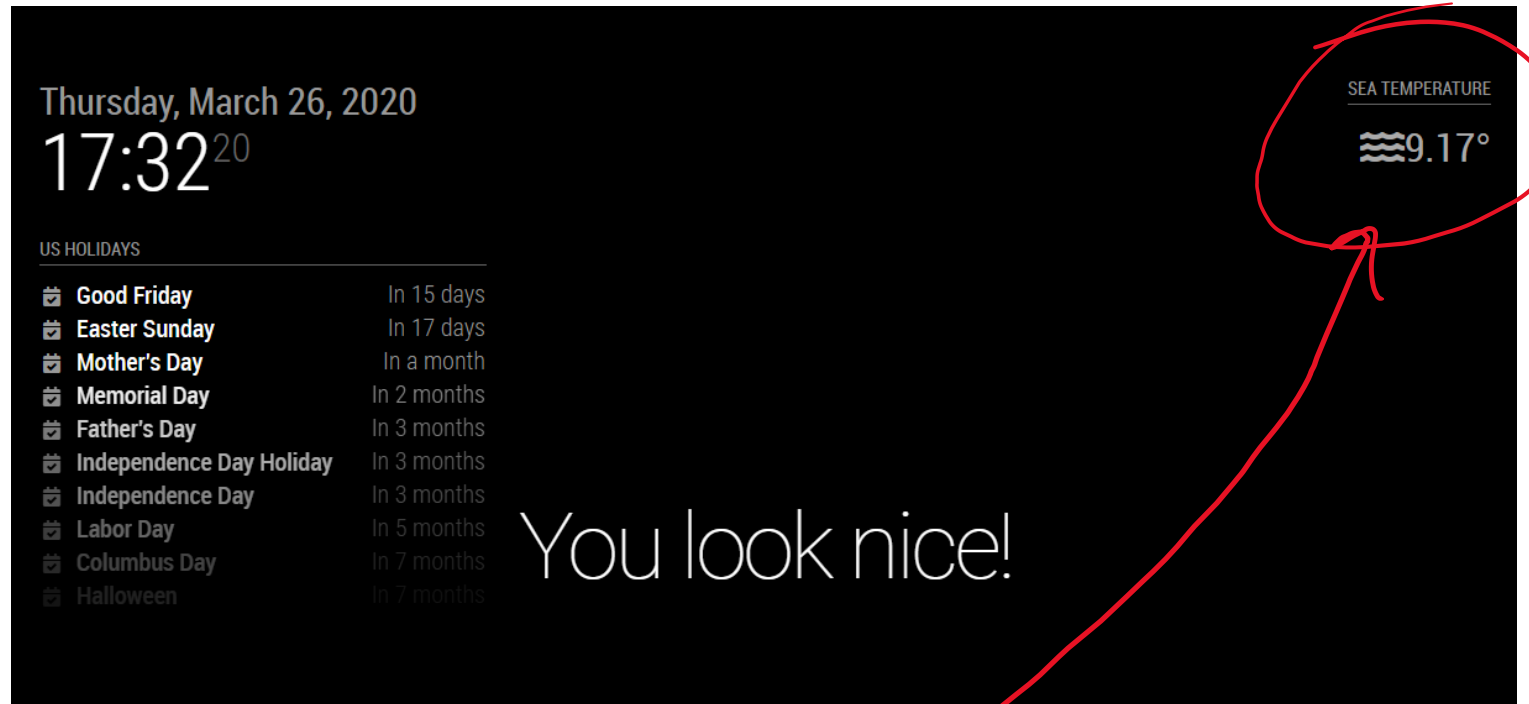
Basic Set up for ServerOnly operation

What we'll make...

M5 Buoy



Magic Mirror



1. Clone and Install Magic Mirror

```
pi@raspberrypi4:~ $ git clone https://github.com/MichMich/MagicMirror.git
Cloning into 'MagicMirror'...
remote: Enumerating objects: 13943, done.
remote: Total 13943 (delta 0), reused 0 (delta 0), pack-reused 13943
Receiving objects: 100% (13943/13943), 14.18 MiB | 1.26 MiB/s, done.
Resolving deltas: 100% (8098/8098), done.
```

```
pi@raspberrypi4:~ $ cd Ma*
pi@raspberrypi4:~/MagicMirror $ npm install
npm WARN deprecated time-grunt@2.0.0: Deprecated because Grunt is practically unmaintained. Move on to something better. This package will continue to work with Grunt v1, but it will not receive any updates.
npm WARN deprecated @types/vfile-message@2.0.0: This is a stub types definition. vfile-message provides its own type definitions, so you do not need this installed.

> electron-chromedriver@1.8.0 install /home/pi/MagicMirror/node_modules/electron-chromedriver
> node ./download-chromedriver.js

successfully dowloaded and extracted!

> core-js@2.6.11 postinstall /home/pi/MagicMirror/node_modules/core-js
> node -e "try{require('./postinstall')}catch(e){}"

Thank you for using core-js ( https://github.com/zloirock/core-js ) for polyfilling JavaScript standard library!
```

The project needs your help! Please consider supporting of core-js on [Open Collective](#) or [Patreon](#).

Update /config.config.js

```
var config = {  
  address: "0.0.0.0", //  
  
  port: 8888,  
  ipWhitelist: [], // Se
```

allows all IPs!
Can limit it to
your own network
e.g. 192.168.1/24



nodemon reload, automatically.

Nodemon is a utility that will monitor for any changes in your source and automatically restart your server. Perfect for development. Install it using [npm](#).

Install Nodemon

Saves you having to restart
every time you change
code

Create Simple Module

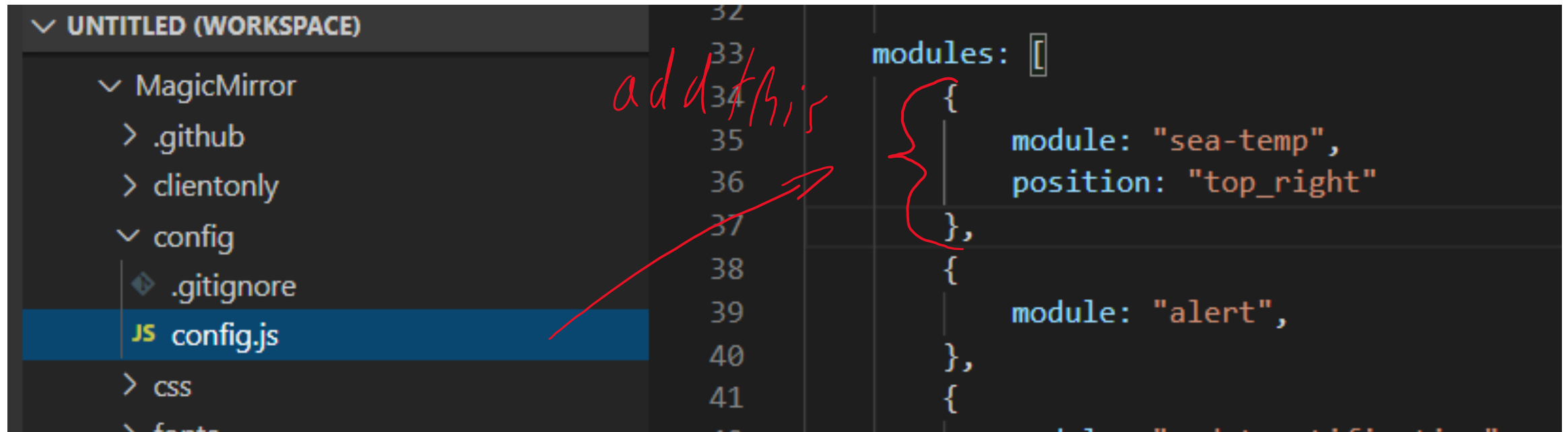
SSH FS - pi4 > home > pi > MagicMirror > modules > sea-temp > JS sea-temp.js

```
1  Module.register("sea-temp",{
2      // Default module config.
3      defaults: {
4          text: "Hello IoT Year2"
5      },
6
7      // Override dom generator.
8      getDom: function() {
9          var wrapper = document.createElement("div");
10         wrapper.innerHTML = this.config.text;
11         return wrapper;
12     }
13 });
```

New folder

New File

Update /config/config.js



The screenshot shows a code editor with a file explorer on the left and a code editor on the right. The file explorer shows a project structure with a 'config' folder containing 'config.js'. The code editor shows the content of 'config.js' with a red arrow pointing to the 'modules' array. The handwritten text 'add this' is above the arrow.

```
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42
```

modules: [
 {
 module: "sea-temp",
 position: "top_right"
 },
 {
 module: "alert",
 },
 {
 module: "test_notification"

Test It!

Thursday, March 26, 2020

16:20³⁹

US HOLIDAYS

📅 Good Friday	In 15 days
📅 Easter Sunday	In 17 days
📅 Mother's Day	In a month
📅 Memorial Day	In 2 months
📅 Father's Day	In 3 months
📅 Independence Day Holiday	In 3 months

Hello IoT Year2

Enhance the Module: Get data from M5 buoy

- Include URL and pull in css style sheet

```
Module.register("sea-temp",{  
  // Default module config.  
  defaults: {  
    URL: 'https://erddap.marine.ie//erddap/tabledap/IWBNetwork',  
  },  
  
  getStyles: function() {  
    return [  
      'font-awesome.css' // this file is available in the  
    ]  
  },  
});
```

Enhance the Module: Get data from M5 buoy

- Specify Start function that requests M5 data every 5 seconds

```
start: function() {  
    var self = this;  
    setInterval(function() {  
        var xmlhttp = new XMLHttpRequest();  
        xmlhttp.onreadystatechange = function() {  
            if (xmlhttp.readyState == 4 && xmlhttp.status == 200) {  
                var results = JSON.parse(xmlhttp.responseText);  
                self.temperature= results.table.rows[0][10]  
            }  
        };  
        xmlhttp.open("GET", self.config.URL, true);  
        xmlhttp.send();  
        self.updateDom(); // no speed defined, so it updates instantly.  
    }, 5000); //perform every 1000 milliseconds.  
},
```

Enhance the Module: Get data from M5 buoy

- Update getDom function to check for temperature and display

```
// Override dom generator.  
getDom: function() {  
  
    var wrapper = document.createElement("div");  
  
    if (!this.temperature) {  
        wrapper.innerHTML = "No data";  
        wrapper.className = "dimmed light small";  
        return wrapper;  
    }  
  
    wrapper.innerHTML = '<i class="fas fa-water"></i>'+this.temperature + '&deg;';  
  
    return wrapper;  
}
```