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installall MagicMirror on Waveshare



Sources

- the Device at Pi-Shop.ch
- Waveshare Wiki for installation
- Update NodeJS
- SmartBuilds.io MagicMirror with Touchscreen

Base System

installiere ein neues Raspbian auf der SD Karte, am besten via Raspi Installer. Danach solltest du das System aktualisieren mit `sudo apt update && sudo apt -y upgrade`.

Install Magic Mirror

Download MM Package from GitHUB MagicMirrorPage in my case it was Version 2.20.0.

```
git clone https://github.com/MichMich/MagicMirror
cd MagicMirror/
npm install --only=prod --omit=dev
```

clean Config and first Start

```
cd ~/MagicMirror; cp config/config.js.sample config/config.js
```

start it with `npm run start`

Install MMM-RemoteControl

https://github.com/Jopyth/MMM-Remote-Control Das Module Remote Control gibt dir eine Fernsteuerung via http. Der grosse Vorteil an diesem Modul ist aber auch, dass du von hier aus neue

Module installieren kannst. Ich kann das Module nur empfehlen, es macht dir die Administration einiges einfacher.

Install MMM-MacAddressScan

To make sure you have all dependencies, issue a

```
npm install ping
npm install sudo
```

as those both were missing in my case. And of course you should have installed the package `arp-scan`. `sudo apt install arp-scan`.

Install MMM-Modulebar

https://github.com/Snille/MMM-Modulebar/

additional Modules

Beim anschauen der Liste der zusätzlichen Module sind mir folgende aufgefallen: 3rd-party-modules

- SwissCommute Swiss Timetable via Sear.ch
- MagicMover
- Carousel - wechselnde Bildschirme
- WeatherGraph
- SwissLakeTemperature (Zürisee, Greifensee, Genfersee)
- smartTouch
- FlightRadarTracker
- Flights with Map
- News-QR
- OpeningHours-GooglePlaces
- Reddit Ticker
- CyberSecurity News
- WatchDog
- Touch rsp. Touch Wiki

Diese könnten interessant sein...

zusätzliche Kalender zum anzeigen

- Schweizer Feiertage

weitere Ideen

- OnScreenMenü

- SmartTouch
- FlightRadarTracker
- CyberSecurityNews

Server & Client Mode

Because the Raspi inside the Waveshare MM is very weak in Terms of Performance, I would try to run it in Server and Client mode.

So we copy over the whole Code to an other Raspi and run it there in Server Mode. This Way the Raspi in the Waveshare MM only needs to display the "Browser" Window.

Start the Server part with `npm run server` and the Client with `node clientonly –address 192.168.1.5 –port 8080`

Update NodeJS ?

During Install, I see, we need NodeJS Version 14 or newer. On my Raspi there were NodeJS in Version 12, so we have to upgrade NodeJS... No! I did it, and afterwards I was not able to get FlightRadar running. The Client was rejected and

Control Monitor Settings

In order to be able to change the Brightness and Backlight of the Monitor you need to tweak a few things. Idea taken from MagicMirror Forum Post by aprilmaccydee

Enable i2c in boot.ini

Edit `nano /boot/config.txt`
Add: `dtparam=i2c2_iknowwhatimdoing`
and then reboot the Raspberry

Install ddcutil

installieren mit `sudo apt install ddcutil`
testen `sudo ddcutil detect`

Das sollte ungefähr folgendes ausgeben:

```
pi@raspberrypi:~ $ sudo ddcutil detect
Display 1
   I2C bus:             /dev/i2c-2
   EDID synopsis:
      Mfg id:           RTK
```

```
      Model:             RTK FHD
      Serial number:     [redacted]
      Manufacture year: 2011
      EDID version:      1.3
   VCP version:          2.2
```

get Values

wenn es funktioniert, dann kannst du z.B. die Helligkeit anzeigen mit:
`sudo ddcutil getvcp 10 to get the brightness`

set Values

`sudo ddcutil setvcp 10 [1-100]`
zum setzen der Helligkeit, wobei 1-100 die gewünschte Helligkeit darstellt. 0=dunkel 100=ganz hell

known Values

Number	Description	Values (default)
10	Brightness	1-100 (20)
12	Contrast	1-100 (50)
14	Color Preset	0x01 = sRGB
16	Red Color Gain	1-100 (50)
18	Green Color Gain	1-100 (50)
20	Horizontal Position (Phase)	0-100 (0)
22	Horizontal Size	unsupported
30	Vertical Position (Phase)	0-100 (0)
32	Vertical Size	unsupported
44	Rotation	unsupported

mit `ddcutil getvcp all` werden alle verfügbaren VCPs angezeigt.

Weitere Infos auf der DDCUtil Seite

From:
https://aha-it.ch/wiki/ - **AHa-IT**

Permanent link:
https://aha-it.ch/wiki/lx/pi/mm/waveshare-install?rev=1668014641

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