**@crcdng**, **twitter.com/crcdng**

**A-Frame**, **aframe.io**

"A progressive future for VR: why VR is already getting worse, and how to make it better", Robert Yang, www.blog.radiator.debacle.us/2016/12/a-progressive-future-for-vr-why-vr-is.html

"About a certain tendency of French Cinema", François Truffaut, www.newwavefilm.com/about/a-certain-tendency-of-french-cinema-truffaut.shtml

Be Kind Rewind, www.imdb.com/title/tt0799934/

Cinema of Transgression Manifesto, www.ubu.com/film/transgression.html

Disconnected, Thorsten S. Wiedemann and Sara Lisa Vogl, www.youtube.com/watch?v=LwUhf8g8wW4

Dogma, www.dogme95.dk/dogma-95/

Eyesect, The Constitute, theconstitute.org/eyesect/

Famous New Media Artist Jeremy Bailey, www.jeremybailey.net

Fluxus Manifesto: http://georgemaciunas.com/about/cv/manifesto-i/

"For an imperfect cinema", Julio García Espinosa, www.ejumpcut.org/archive/onlinessays/JC20folder/ImperfectCinema.html

Haptic Field, Chris Salter & TeZ, http://www.chrissalter.com/haptic-field/

Imperfect Cinema, Alister Gall, www.imperfectcinema.com

**Imperfect VR code repository**, **github.com/i3games/imperfect-vr/**

In My Shoes, Jane Gauntlett

In the Eyes of the Animal, Marshmallow Laser Feast, iteota.com/

Matsumoto, Keigo, Yuki Ban, Takuji Narumi, Yohei Yanase, Tomohiro Tanikawa, and Michitaka Hirose. 2016. "Unlimited Corridor: Redirected Walking Techniques Using Visuo Haptic Interaction." In Proceedings of the SIGGRAPH '16 ACM SIGGRAPH 2016 Emerging Technologies, 1–2. Anaheim, California: ACM Press. doi: 10.1145/2929464.2929482.

Neurospeculative Afrofeminism, hyphen-labs.com

Snow Crash, Neal Stephenson, ISBN-13: 978-0241953181, www.nealstephenson.com/snow-crash.html

Peeping Tom, www.imdb.com/title/tt0054167

The Machine to be Another, BeAnotherLab, www.themachinetobeanother.org

The Reality of the Virtual, Slavoj Žižek, https://www.youtube.com/watch?v=RnTQhIRcrno

The Object Stares Back: on the Nature of Seeing, John Elkins, ISBN-13: 978-0156004978

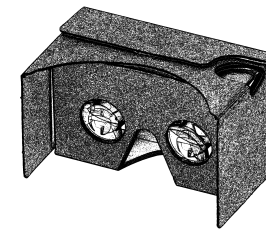Ways of Seeing, John Berger, ISBN-13: 978-0141035796.

Weird Reality Symposium, Art && Code, October 2016 artandcode.com/weirdreality/

#WeAreDanceFace: Intentionally "Stupid" VR, Albert Hwang, www.albert-hwang.com/blog/2016/7/wearedanceface-intentionally-stupid-vr/
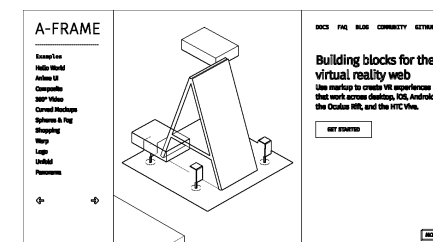
**The 3-part Imperfect VR Manifesto***
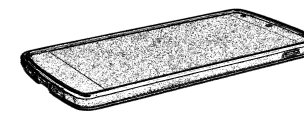


**This is a Smartphone**



**This is a Cardboard**



**This is A-FRAME
aframe.io**

## Now Make a VR !

* based on The 3-part Imperfect Cinema Manifesto: imperfectcinema.com          **@crcdng**
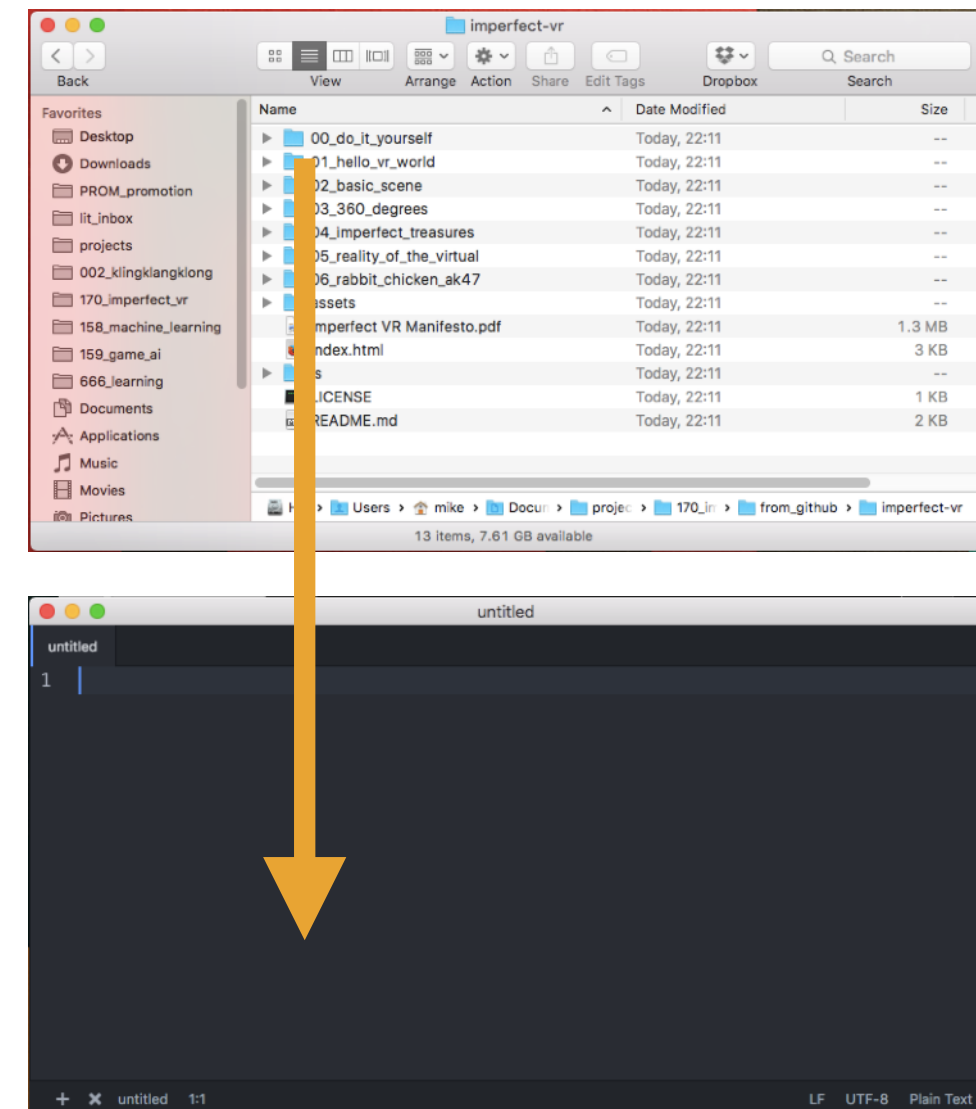
# Atom only: How to restart your project

In the workshops, we installed Atom from atom.io. Then we installed atom-live-server inside of Atom by going to Preferences -> Install -> install the "live-server" package. (You don't have to do these steps again, except if you work from a new computer.)



1. Use Finder to go to the imperfect vr directory you downloaded. If you want to start fresh, just download it again from

**github.com/i3games/imperfect-vr**

2. Start Atom. If its not already opened, drag the directory **00_do_it_yourself** on the Atom window. Open index.html from the file list.
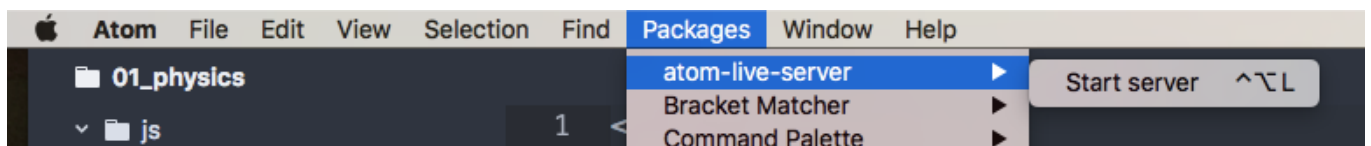


3. Start atom-live-server. A browser window opens with the scene.

To navigate to the other projects, do the steps above with with the whole imperfect-vr directory

# Atom + node: How to restart your project

If you have been to the first workshops, we installed Atom from atom.io and node from nodejs.org. Then we installed live-server by "sudo npm install -g live-server" (Mac) or "npm install -g live-server" (Windows) in the Terminal.

1. Use Finder to go to the directory you downloaded. If you want to start fresh, just download it again from
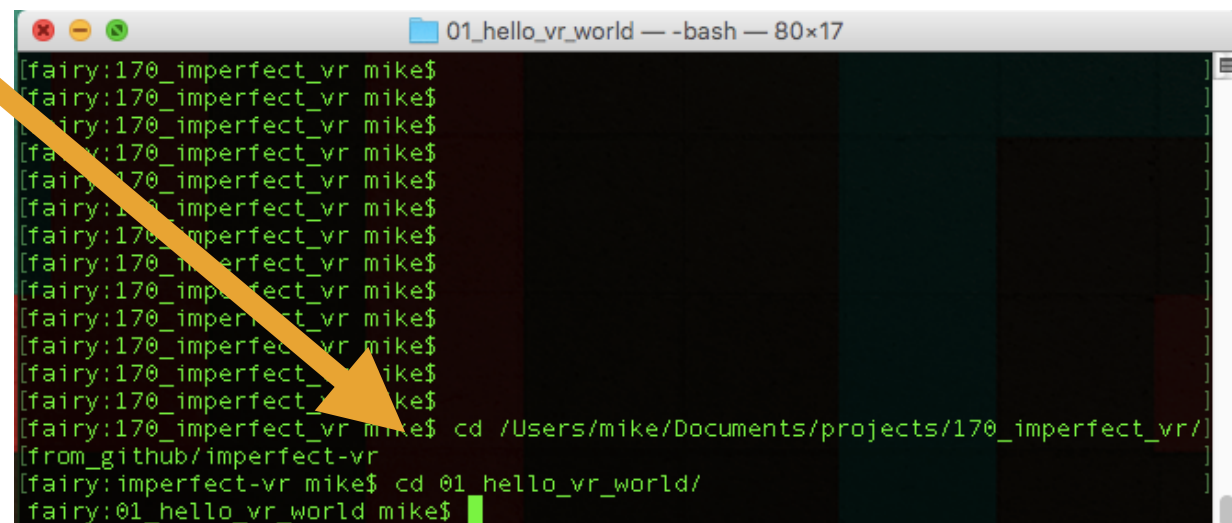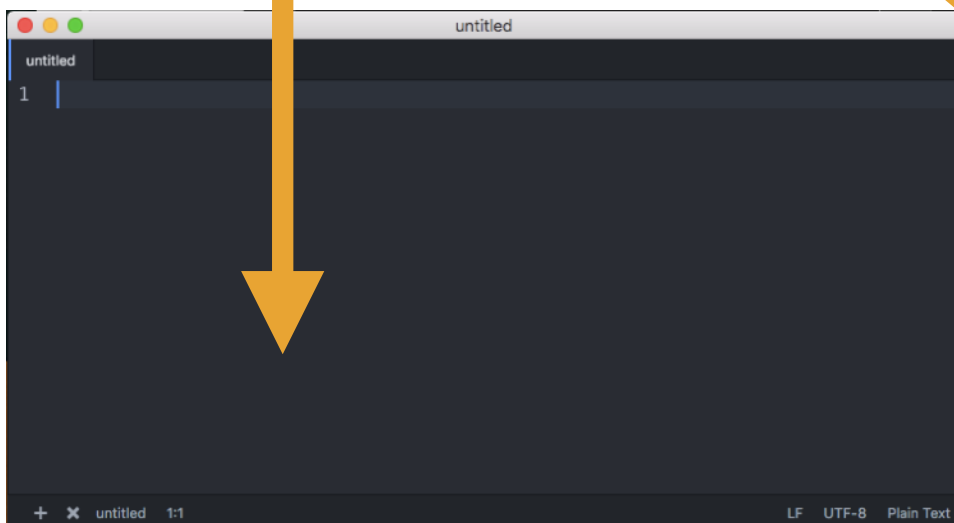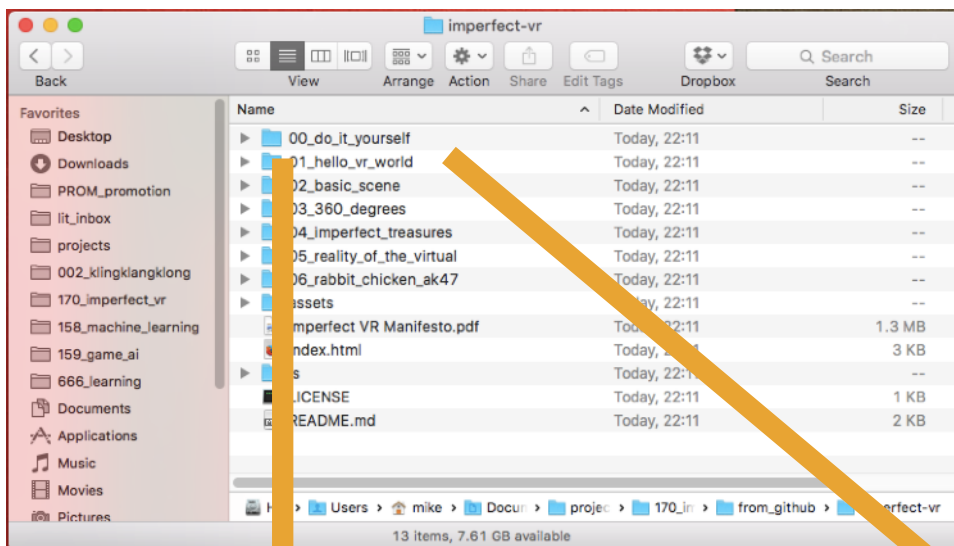
**github.com/i3games/imperfect-vr**

2. Start Atom. If its not already opened, drag

**00_do_it_yourself** on the Atom window. Open index.html from the file list.

3. Open a Terminal and type

**cd** ⬜

(this is "cd" followed by a space). Then drag the directory **00_do_it_yourself** on the window. Press return. Then type
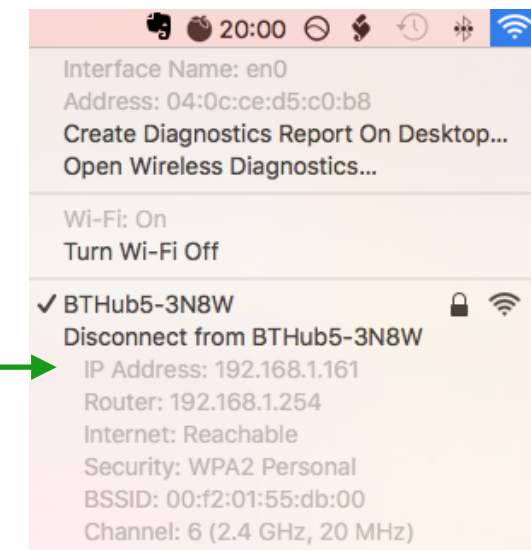
**live-server**

and press return. A browser window opens with the scene.

To navigate to the other projects, do the steps above with with the whole imperfect-vr directory

## How to bring your scene into VR.

1. Make sure your phone and laptop are on the same WiFi.

2. Find out the IP-Address of of your laptop

3. Type this into the address field of the Browser on your phone:
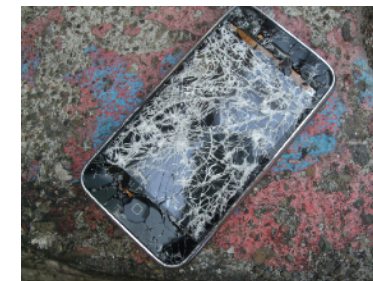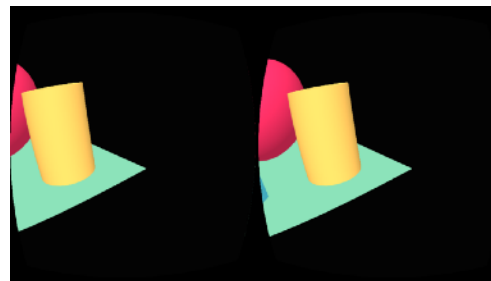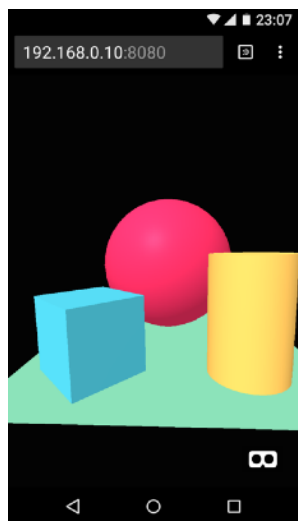
### Atom only

*Your IP-Address*:3000

e.g

192.168.1.161:3000

### Atom + node

*Your IP-Address*:8080

e.g

192.168.1.161:8080

4. Tap the "glasses" icon

(5. Remember)

# Get rid of the address line on the iPhone - Method 1

In the workshops we discovered that on iPhones the address line did not go away in VR. *Meh.*

There is a simple method:

With the page open in Safari, tap the "Share" button.
Select "Add to Home Screen".

Open the page from the home screen link.

(thanks to Lorenzo Pilia)

# Get rid of the address line on the iPhone (and learn how to add a component) - Method 2

In the workshops we discovered that on some of our phones (mostly iPhones) the address line did not go away in VR. *Meh.*

Let's tackle that....and learn how to add a component at the same time. *Yeah.*

Around A-Frame there is a whole ecosystem of people who contribute code and knowledge, writing and sharing VR scenes and components. There is a comprehensive listing of these things called "Awesome A-Frame". There we find this component:

**github.com/aframevr/awesome-aframe**

- Always Fullscreen - Provide ways to enable Fullscreen on iOS (Scroll to Minimal-UI) and Android/Desktop (Fullscreen API)

This looks like what we are looking for.

1. Open your project in Atom, start live-server (see page 2/3) and bring the scene into your phone (page 4). Check if it looks alright (except for the address line for now if you are on iPhone).

2. Download the Always Fullscreen component github.com/protyze/aframe-always-fullscreen-component and unpack the zip file. It is a good a idea to read the description and possible problems (issues). You can also raise an issue if it doesn't work as expected (I did.)

3. In the description it says we need another piece of code called platform.js. Get it from github.com/bestiejs/platform.js and unpack that zip as well.
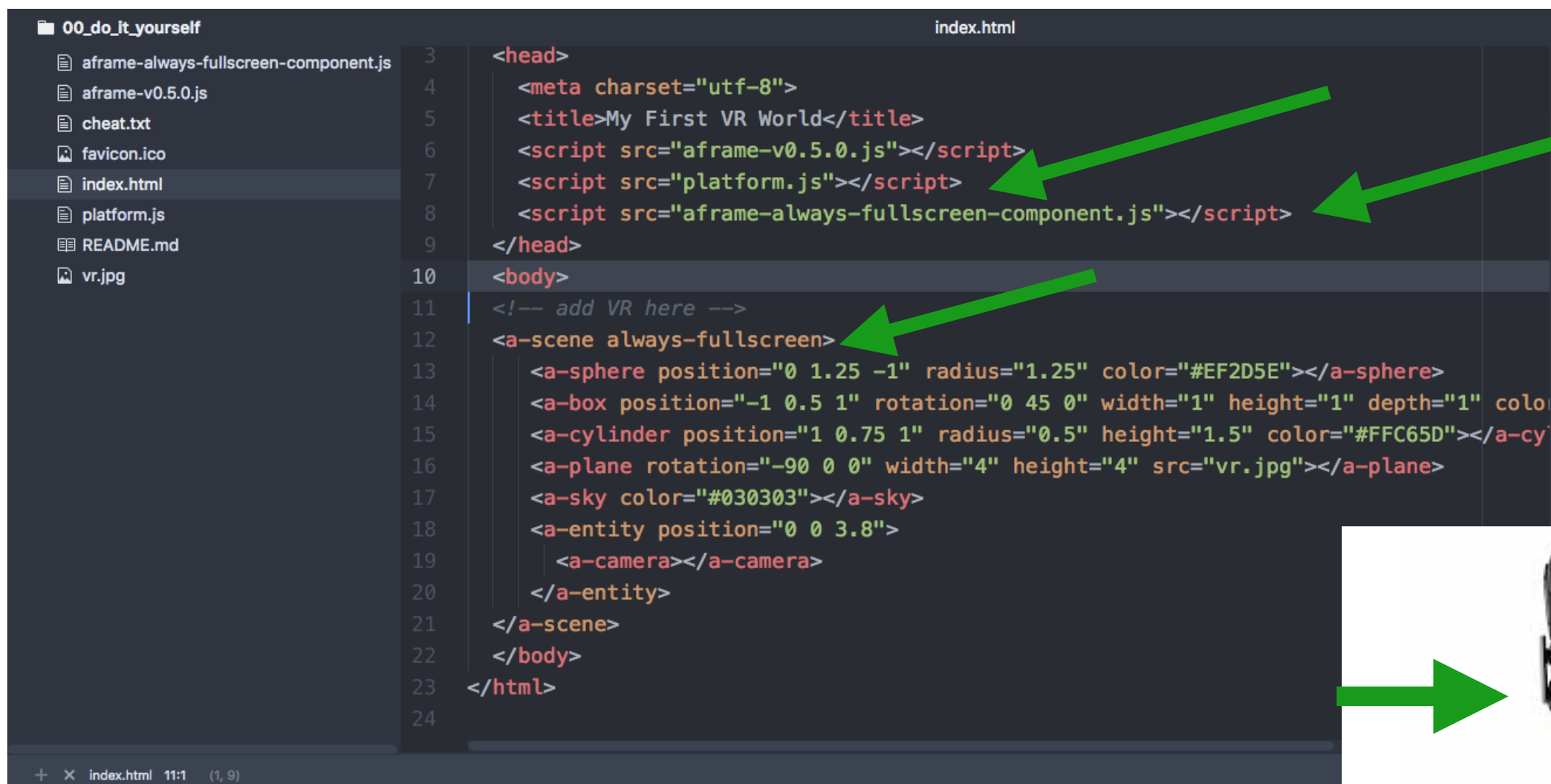
# Get rid of the address line (continued)

4. Now copy two files        **aframe-always-fullscreen-component** from aframe-always-fullscreen-component-master/dist/

platform.js from platform.js-master

...into the directory with our scene.

5. Tell A-Frame that we want to use the new files        6. Add always-fullscreen to the <scene> element



Did it work? Send me a line on Twitter @crcdng