



Web Apps Development



Part II - Advanced Features
Device Orientation - Part II

Homework Feedback

● **FORMAT YOUR CODE**

- Everything that you open, you must close. { Pay a lot of attention to the brackets }
- Coding requires attention. Copying and Pasting is fine as long as you know what you are doing!
- Clearly naming your functions, parameters, and variables is very important. If you name them correctly there is even no need for commenting your code.

Splitting your MVC



`main.js`

(where everything starts)



`controller.js`

(container with all your
remote controls)



`model.js`

(container with all your
DVD Players)



`view.js`

(container with all your
TV Sets)

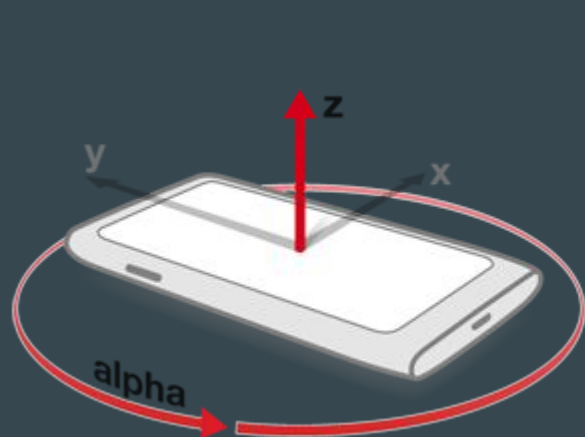
Testing your App on the device using Google Drive

1. Login to your Google Drive
2. Create a new folder
3. Upload your files
4. Right click and choose "Share"
5. Change sharing to: "Anyone on the internet can find and view"
6. Copy the folder id
7. Access your website: <https://googledrive.com/host/0BykiewY49RrPRVFYSF91T0pNdEk/app.html>

Demo - testing on mobile

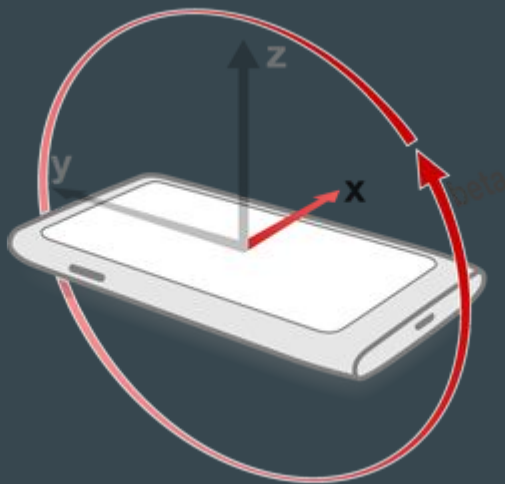
<https://github.com/leonardomra/web-apps-dev-course/tree/master/PE04-DeviceOrientation/html/deviceOrientationDemo>

Device Orientation



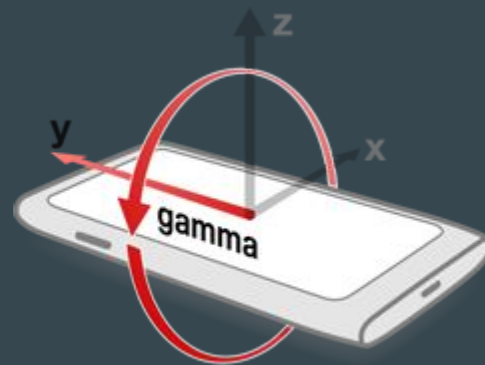
X

(alpha: -180/180
or 0/360)



Y

(beta: -180/180)



Z

(gamma: -90/90)

More info: https://developer.mozilla.org/en-US/docs/Web/Guide/Events/Orientation_and_motion_data_explained

Processing Orientation Events

Event Handler should be added
to the window element



Device Orientation Event has
4 different properties



```
window.addEventListener("deviceorientation", handleOrientation);
```

`DeviceOrientationEvent.absolute`

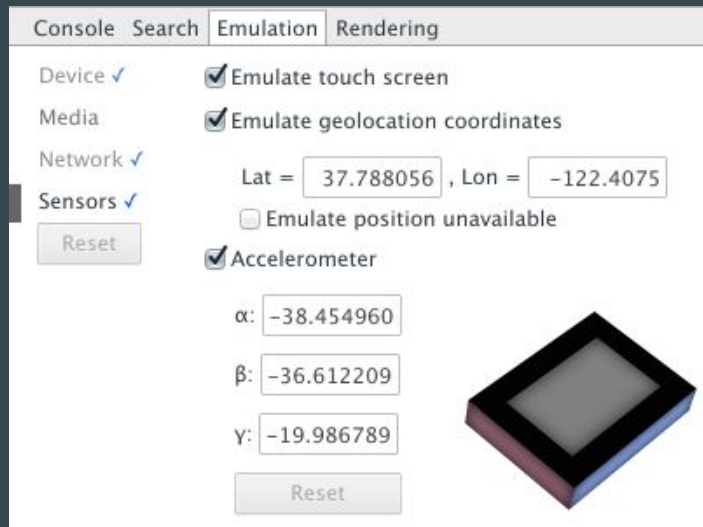
`DeviceOrientationEvent.alpha`

`DeviceOrientationEvent.beta`

`DeviceOrientationEvent.gamma`

* "absolute" indicates whether or not the device is providing orientation data absolutely (that is, in reference to the Earth's coordinate frame) or using some arbitrary frame determined by the device.

Chrome - Mobile Device Emulator



more info: <https://developer.chrome.com/devtools/docs/device-mode>

Device Orientation Implementation



Implementing Device Orientation to the Pacman

- **Beta:** moving the character vertically
- **Gamma:** moving the character horizontally

Homework 1 - Code Puzzle

<https://github.com/leonardomra/web-apps-dev-course/blob/master/PE04-DeviceOrientation/html/challenge/javascript/main.js>

Instructions on the file above.

* it's recommended to do the exercise in groups of two (strong/weak).

Homework 2 - Colorizer Project

1. Make a new folder called “colorizer”;
2. Inside this folder create 4 js files: main, model, view, controller;
3. Create a new Object called Colorizer that changes the background color of html elements based on the Device Motion Event Handler.
4. Colorize a widget of your dashboard.
5. Test on the phone.

* you can consult the `DeviceMotionDemo` object to accomplish this exercise!