

HTML5 Device APIs

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Device APIs

- GPS
- Camera, Video, & Microphone
- Audio HW
- Vibration HW
- Battery
- NFC

Device APIs - Sensors

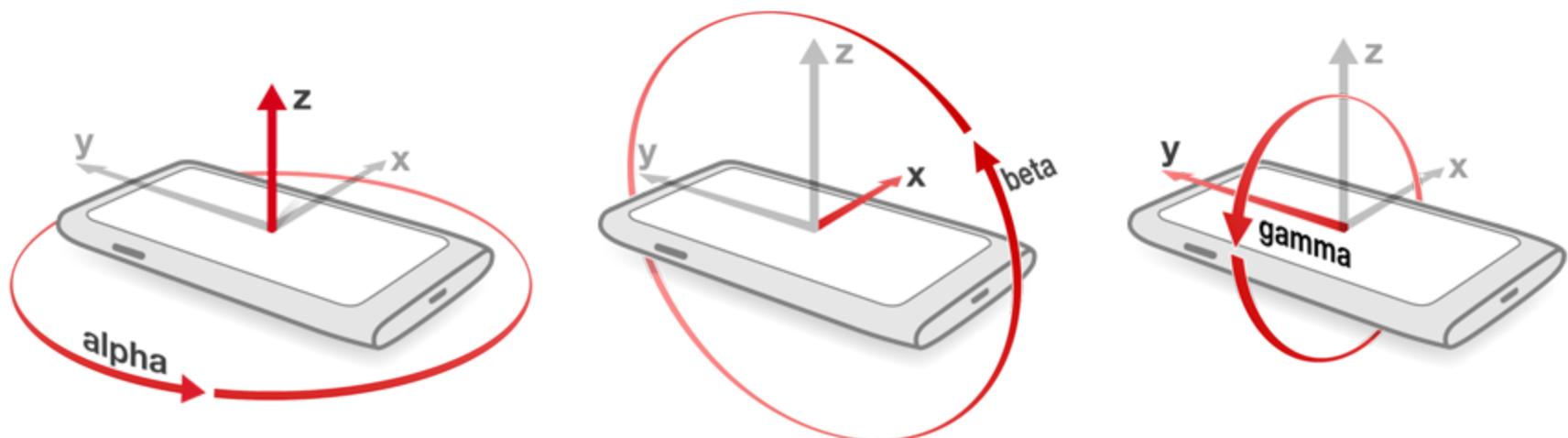
- Accelerometer
- Magnetometer
- Gyrometer
- Light
- Proximity
- Barometer (Pressure)

Geolocation

```
if (navigator.geolocation) {  
    navigator.geolocation.getCurrentPosition(success, fail);  
}  
function success(position) {  
    alert('Latitude: ' + position.coords.latitude +  
        ', Longitude: ' + position.coords.longitude);  
}
```



Device Orientation Events



```
if (window.DeviceOrientationEvent) {  
    window.addEventListener('deviceorientation', function(e) {  
        compass = e.alpha; // degree  
        frontBack = e.beta;  
        leftRight = e.gamma;  
        ...  
    }, false);  
}
```

Partial support



4.2



3.0



18



10

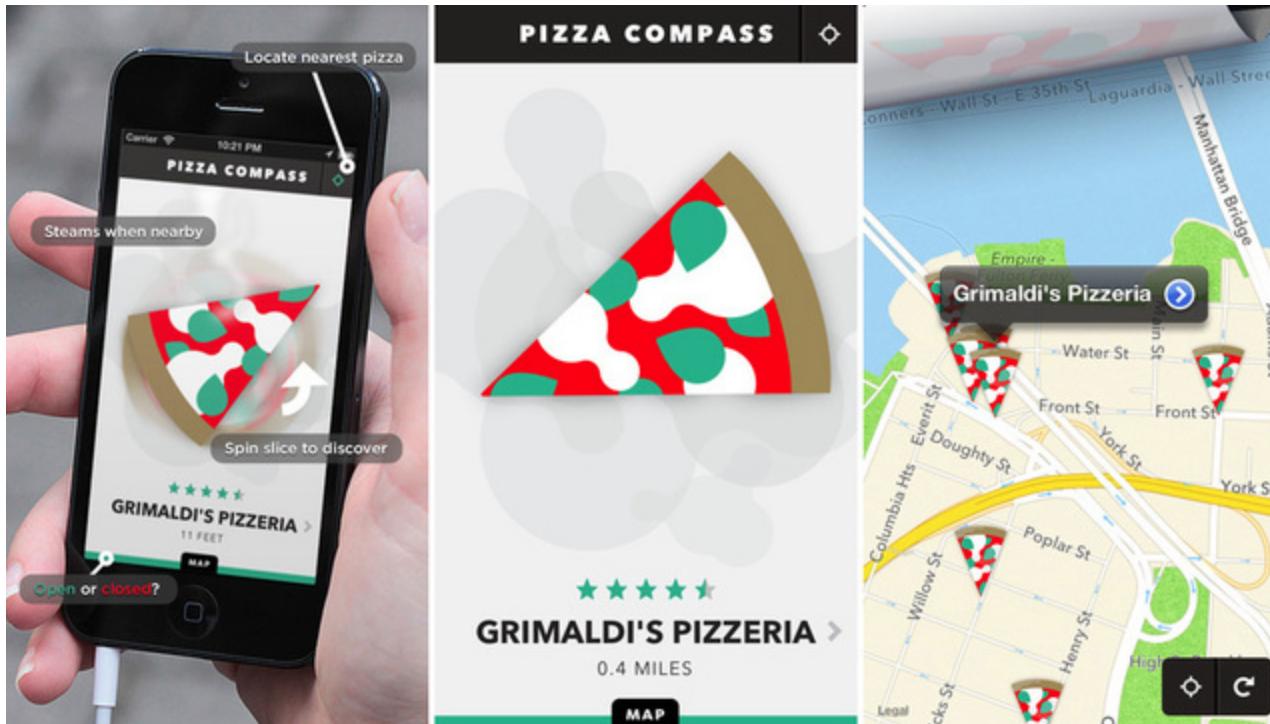


14



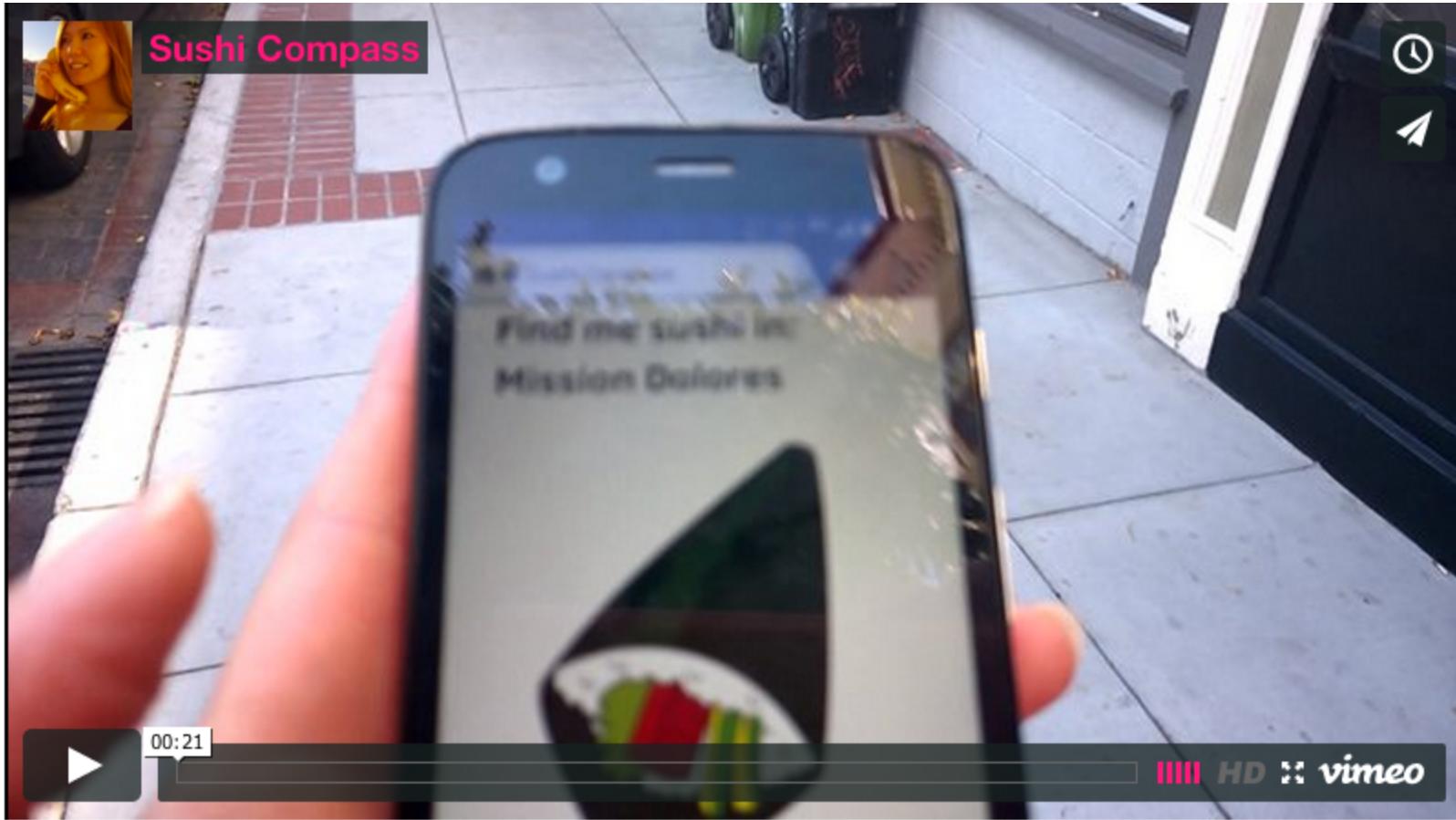
12

User Cases



Can we re-create this iOS app in HTML5?

<http://pizza-compass.com/>



Watch the demo video at: <https://vimeo.com/92208773>

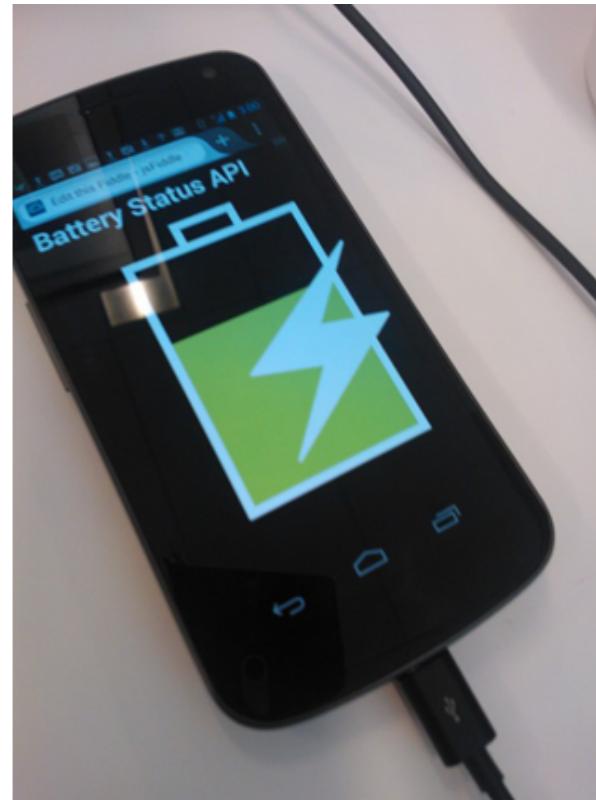
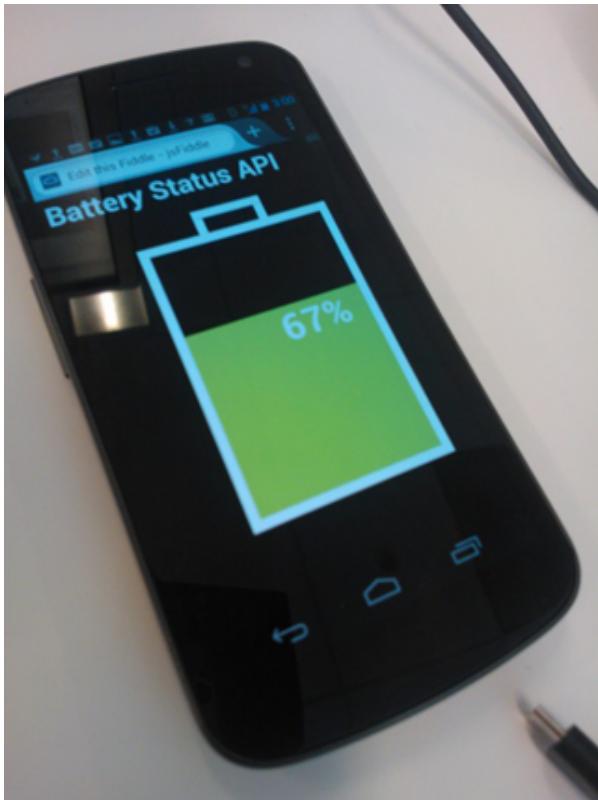
Demo: <http://girliemac.github.com/sushi-compass>

Battery Status API

```
var battery = navigator.battery || navigator.mozBattery;  
  
battery.addEventListener('chargingchange', updateStatus);  
battery.addEventListener('levelchange', updateStatus);  
  
function updateStatus() {  
    alert('Battery status: ' + battery.level * 100 + ' %');  
    if (battery.charging) {  
        alert('Battery is charging...');  
    }  
}
```



Battery Status API

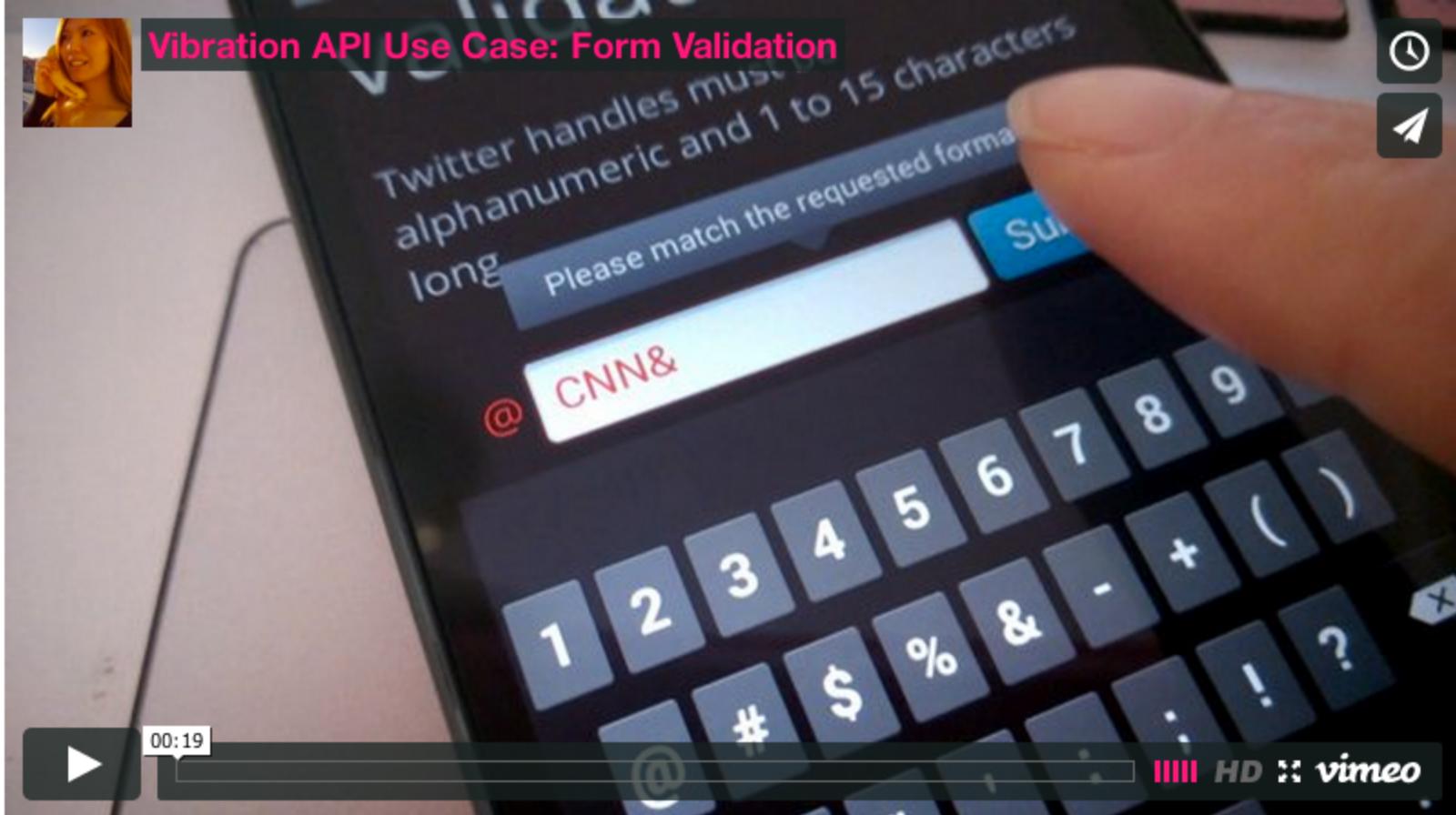


<http://goo.gl/V1n6h> (Pictured: Firefox)

Vibration API

```
var vibrate = navigator.vibrate || navigator.mozVibrate;  
  
// vibrate for 1sec  
vibrate(1000);  
  
// vibrates for 1sec, still for 0.5 seconds,  
// and vibrates again for 2sec  
vibrate([1000, 500, 2000]);
```





Watch the demo video at: <https://vimeo.com/86735842>

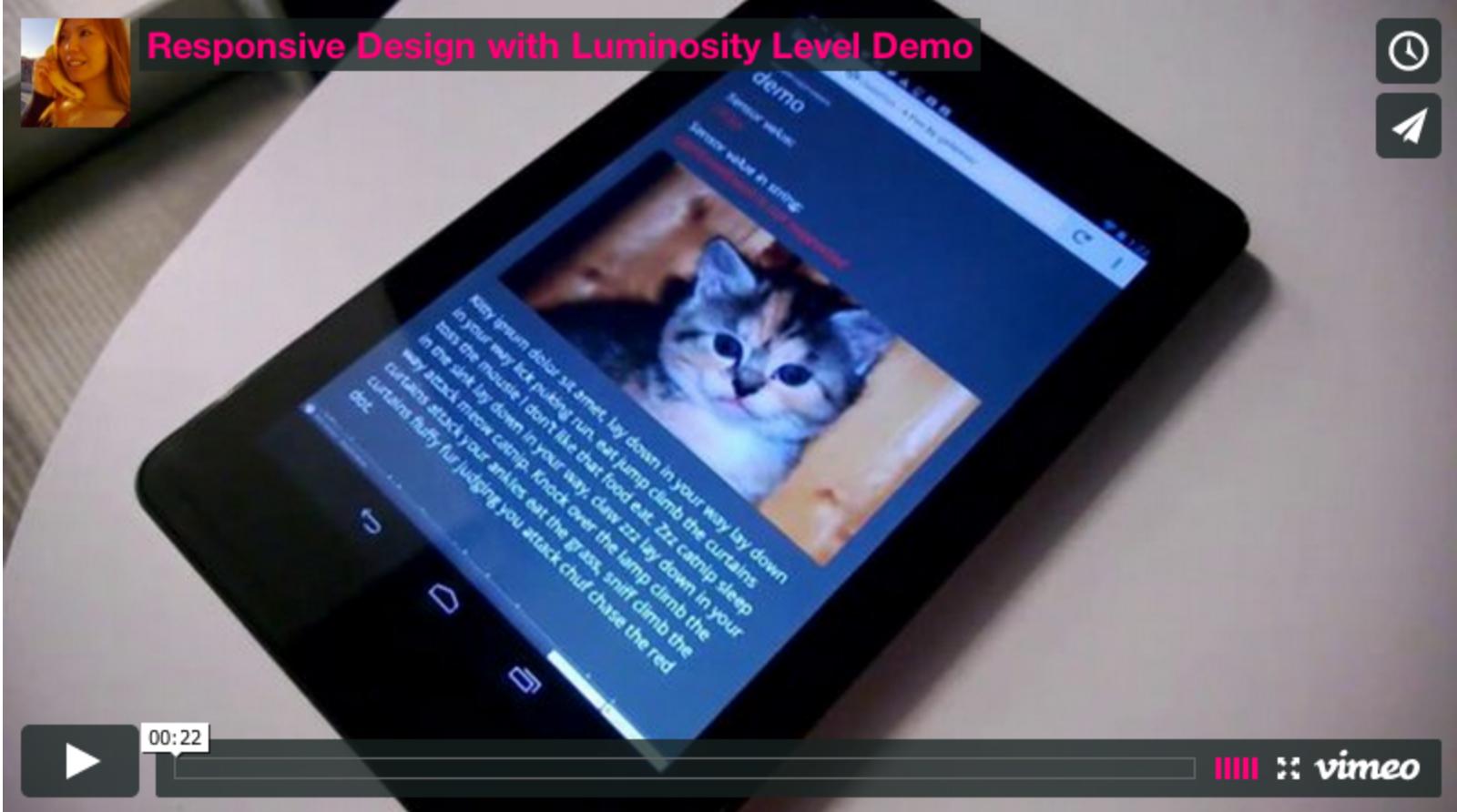
Demo: <http://goo.gl/SFzKaH>

Ambient Light Events

```
window.addEventListener('devicelight', function(e) {  
    alert(e.value);  
});
```

| Returned value (in lux) | My Observations |
|-------------------------|---|
| < 400 | Indoor |
| 400-1000 | Office lighting. Outdoor (in foggy San Francisco) |
| > 1000 | Outdoor daylight (anywhere else in California) |

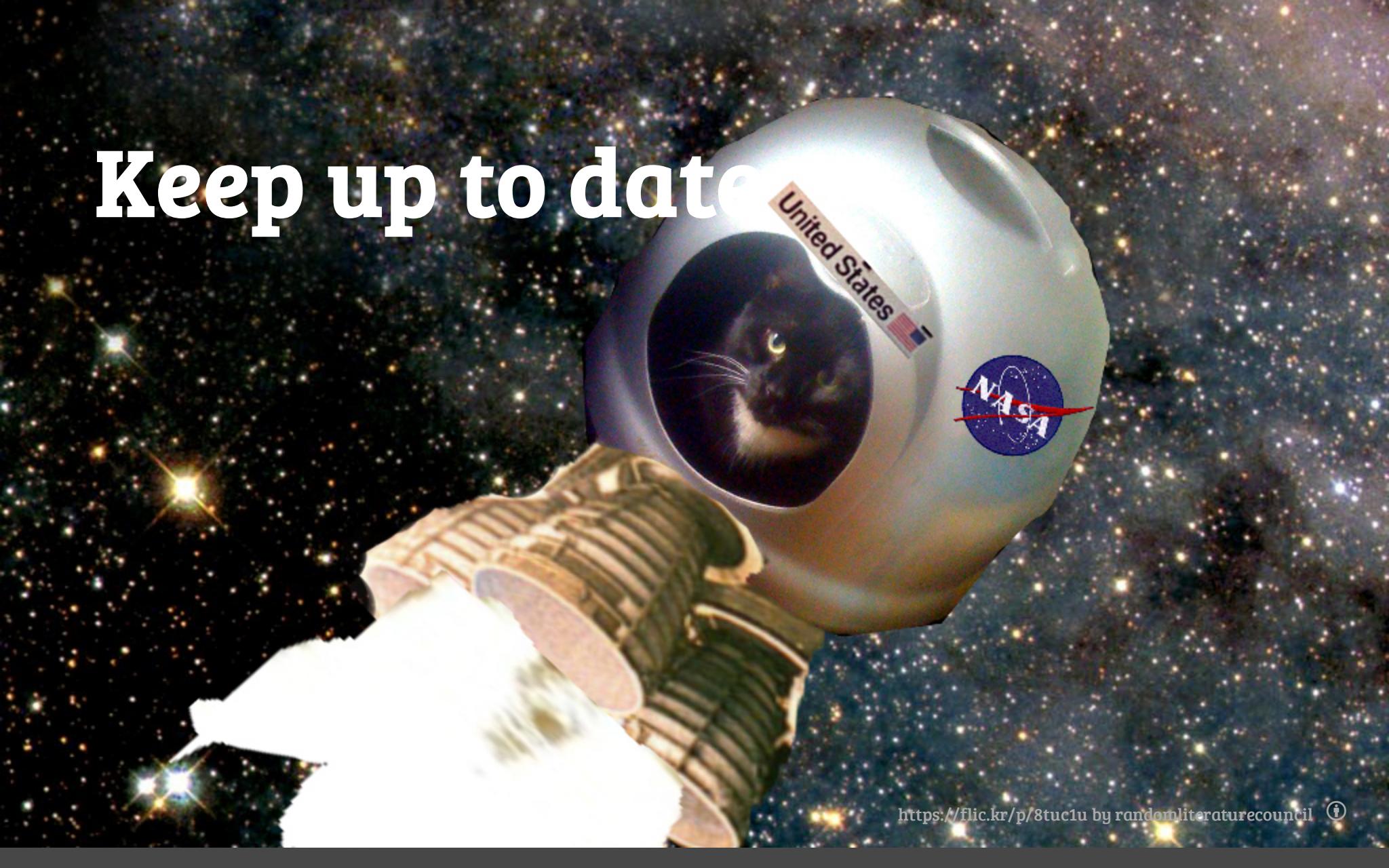




Watch the demo video at: <https://vimeo.com/79466285>

Demo: <http://codepen.io/girliemac/pen/pvmBs>

Keep up to date



Chromium Dashboard

www.chromestatus.com/features

what we're up to

Features CSS Metrics JS/HTML Metrics

Web Platform Features (168)

No active development

Proposed

In development

- 36 canary
- 35 dev
- 34 beta
- 33 stable
- 32
- 31
- 30
- 29
- 28
- 27
- 26

<picture> Element Misc

Enable a responsive images solution by declaring multiple resources for an image using CSS media queries.

Blending of elements - obsolete entry CSS

Offers more ways to combine HTML elements.

CSS Intrinsic Sizing CSS

Extends the CSS sizing properties with keywords that represent content-based "intrinsic" sizes and context-...

CSS font-stretch CSS

Add support the the CSS font-stretch property.

CSSOM View smooth scroll API CSS

Adds an optional argument to existing scroll APIs that specifies whether scrolling should be smooth. Also ad...

Canvas rendering from workers

IN DEVELOPMENT

?

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Köszönöm!

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