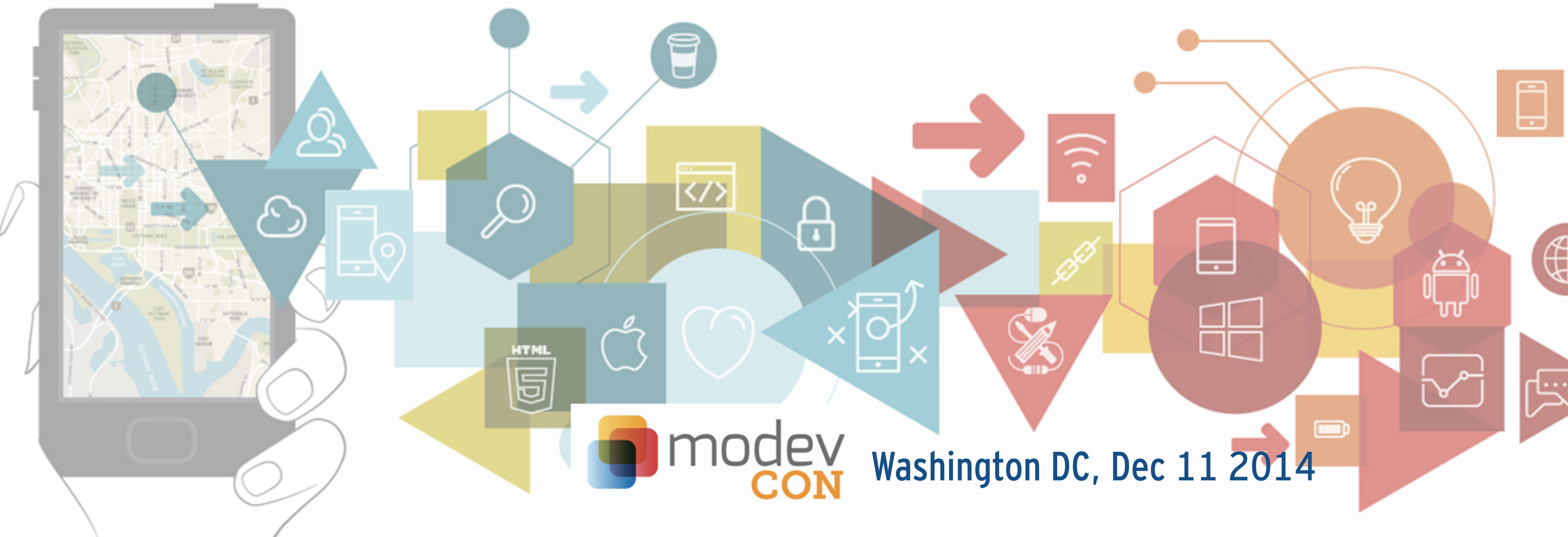




workshop

maximiliano @firtman



# trainer







PEARSON

DÉVELOPPER POUR LE

WEB MOBILE

Référence

O'REILLY

Mobil Web Programlama

MAXIMILIANO  
FIRTMAN

PUSULA



移动网络程序设计

Maximiliano Firtman 著

王健 译

清华大学出版社



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ЧИТАЙ

Веб-программирование

для мобильных устройств



实践 jQuery Mobile

Maximiliano Firtman 著

王健 译

清华大学出版社

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jQuery Mobile 建置與執行

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jQuery Mobile 即学即用

何健 译

Maximiliano Firtman 著

人民邮电出版社



jQuery Mobile: Up and Running

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jQuery Mobile. Aplicaciones HTML5 para móviles

WILEY



Programmare per il Web Mobile

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HOPS  
↑



Programming the Mobile Web

Firtman

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SECOND EDITION

Programming the  
Mobile Web

Firtman

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*Using HTML5 to Design Web Apps for Tablets and Smartphones*



# jQuery Mobile

*Up and Running*

O'REILLY®

*Maximiliano Firtman*

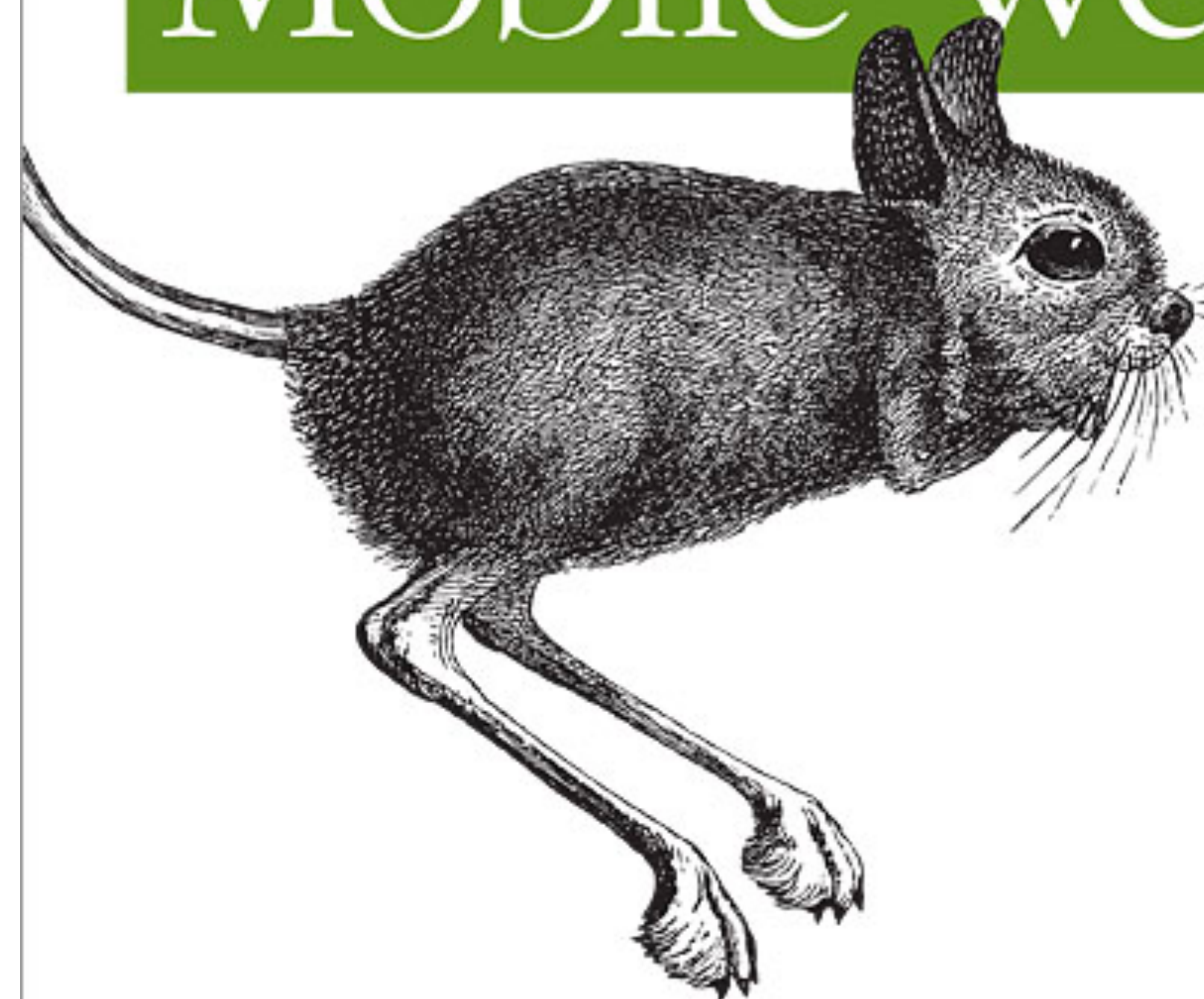
*Reaching Users on iPhone, Android,  
BlackBerry, Windows Phone, and more*

**2nd Edition**  
Includes HTML5



*Programming the*

# Mobile Web



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NEW!



# Mobile HTML5

*Maximiliano Firtman*

**VIDEO**

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SOON!

# High Performance Mobile Web

BEST PRACTICES FOR OPTIMIZING  
MOBILE WEB APPS



Maximiliano Firtman



# MOBILE HTML



beta, of course



Do not program conditionals per platform or version. Always use feature detection.

This list is in progress. New tests, new features, more specificity of each feature and more mobile browsers soon!

If you want to help on the test, [contact me](#).

by [firt](#) | [Updates on Twitter](#) | [Blog](#)

## Trying to understand HTML5 compatibility on mobile and tablet browsers

| Feature                                                                                                          | Safari on iOS | Android Browser  |                | BlackBerry Browser |        | Internet Explorer | Opera  |      | Firefox | webOS Browser | Symbian Browser |
|------------------------------------------------------------------------------------------------------------------|---------------|------------------|----------------|--------------------|--------|-------------------|--------|------|---------|---------------|-----------------|
| Version tested                                                                                                   | iPhone, iPad  | Phones (1.0-2.3) | Tablets (3.0+) | Phones             | Tablet | Windows Phone     | Mobile | Mini | Android |               | Nokia phones    |
| Minimum version tested                                                                                           | 3.2           | 1.5              | 3.0            | 5.0                | 1.0    | 9                 | 11     | 5    | 6       | 1.4           | ^3              |
| <b>Application Cache</b><br><u>W3C API</u><br>Offline package installation.                                      | ✓             | ✓<br>2.1+        | ✓              | ✓<br>6.0+          | ✓      |                   | ✓      |      | ✓       | ✓             |                 |
| <b>Web storage</b><br><u>W3C API</u><br>Persistent and session storage.                                          | ✓             | ✓<br>2.0+        | ✓              | ✓<br>6.0+          | ✓      | ✓                 | ✓      |      | ✓       | ✓             |                 |
| <b>Web SQL storage</b><br><u>W3C API (no active)</u><br>Persistent SQLite storage.                               | ✓             | ✓<br>2.0+        | ✓              | ✓<br>6.0+          | ✓      |                   | ✓      |      |         | ✓             |                 |
| <b>Geolocation</b><br><u>W3C API</u><br>Geolocation & tracking using GPS, cells or Wi-Fi.                        | ✓             | ✓<br>2.0+        | ✓              | ✓<br>6.0+          | ✓      | ✓                 | ✓      |      | ✓       | ✓             |                 |
| <b>Multimedia</b><br><u>W3C API</u><br>Video & Audio Players                                                     | ✓             | ✓<br>2.3+        | ✓              | ✓<br>7.0+          | ✓      | ✓                 | ✓      |      | ✓       | ✓             |                 |
| <b>Server-Sent Events</b><br><u>W3C API</u><br>EventSource pattern to maintain the connection to the server open | ✓<br>4.1+     |                  |                |                    |        |                   | ✓      |      | ✓       |               |                 |
| <b>Web Sockets</b><br><u>W3C API</u><br>Newbidirectional protocol over HTTP                                      | ✓<br>4.2+     |                  |                | ✓<br>6.1+          | ✓      |                   | ✓      |      | ✓       |               |                 |

[www.mobilehtml5.org](http://www.mobilehtml5.org)

Links and workshop files

**[firtman.github.io/modevcon](https://firtman.github.io/modevcon)**

Before anything...

[nodejs.org](https://nodejs.org)



# questions

yes, please

Anytime...



# We will cover...

- 1- Node.js intro & usage
- 2- Basic examples
- 3- Web server examples
- 4- Web sockets
- 5- Hardware and IoT







# 1- node.js intro



nodejs<sup>TM</sup>





# What do you need to know?





What can we do with node?

# Differences with JS we know



Links and workshop files

**[firtman.github.io/modevcon](https://firtman.github.io/modevcon)**

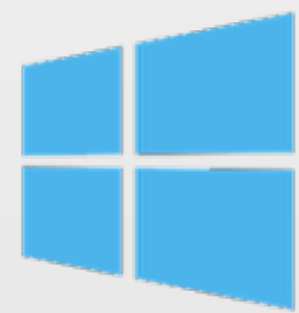
# Console 101



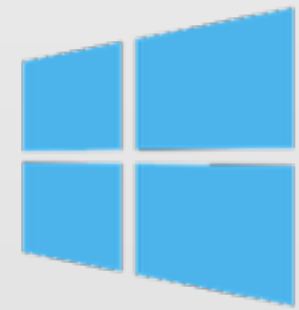
node.js command line



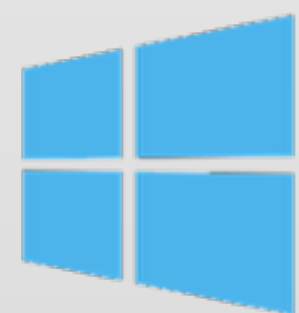
terminal



`cd <directory>`



`cd ..`



`dir`



`ls`



Code time!

прт



npm install <name>

> npm install cordova

npm install <name> -g

> npm install express -g



**sudo npm install <name> -g**

> sudo npm install express -g

package.json

npm init



```
npm install <name> --save
```

```
> npm install express --save
```

```
npm install
```

npm update



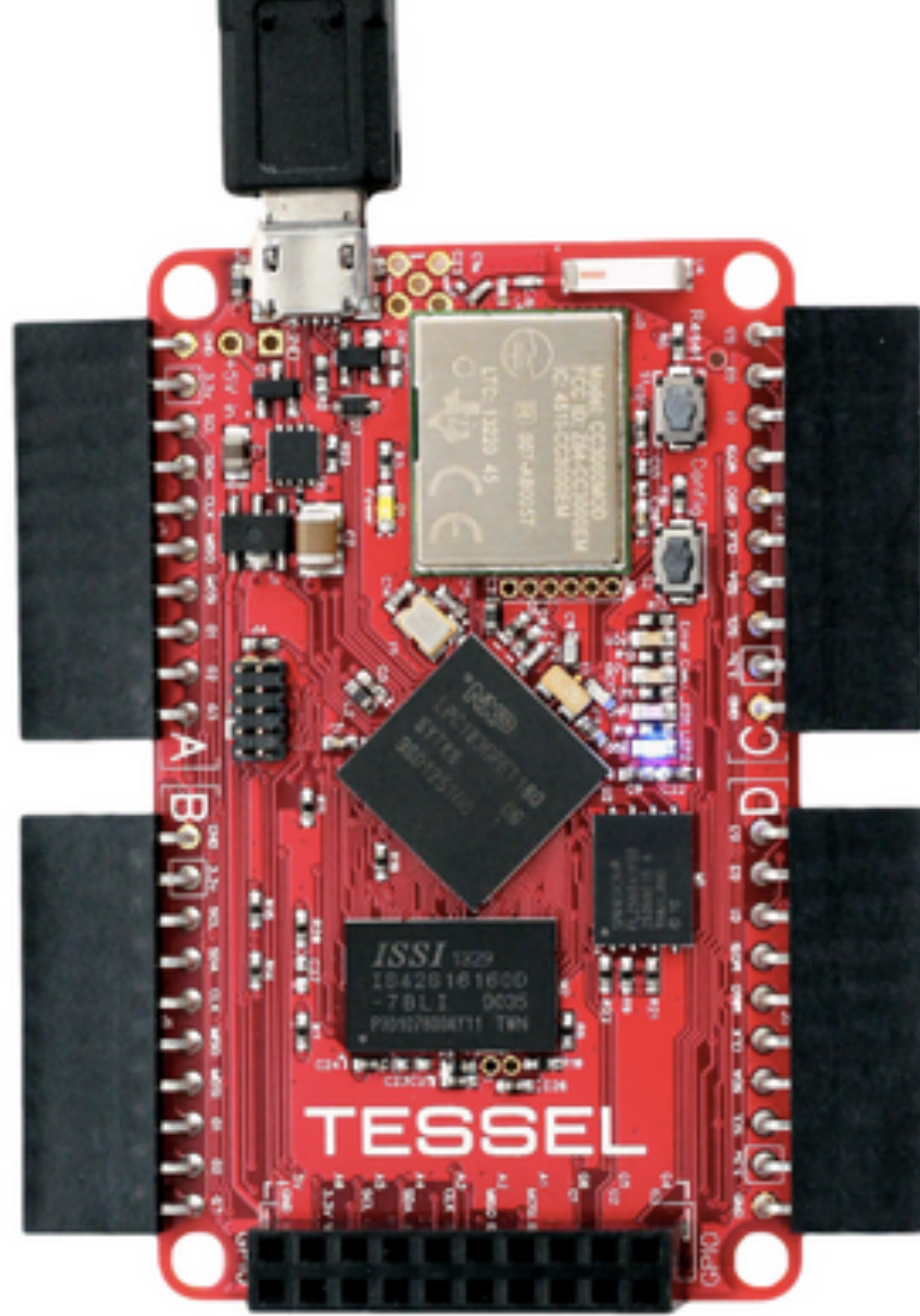
Code time!

# Hardware and IoT

hardware



# tessel.io



Hardware development for  
software developers.

**Buy now**

Get started with your Tessel!

[See Tessel projects →](#)

**Tessel** is a microcontroller that runs JavaScript.  
It's Node-compatible and ships with Wifi built in.



# thethingbox.io

Image Binary File for Pi

version 1.4.2

Release Date 2014-08-22

## Featuring

✓ Node-RED 0.8.1

---

✓ Node.js 0.10.31

---

✓ Mosquitto 1.3.4

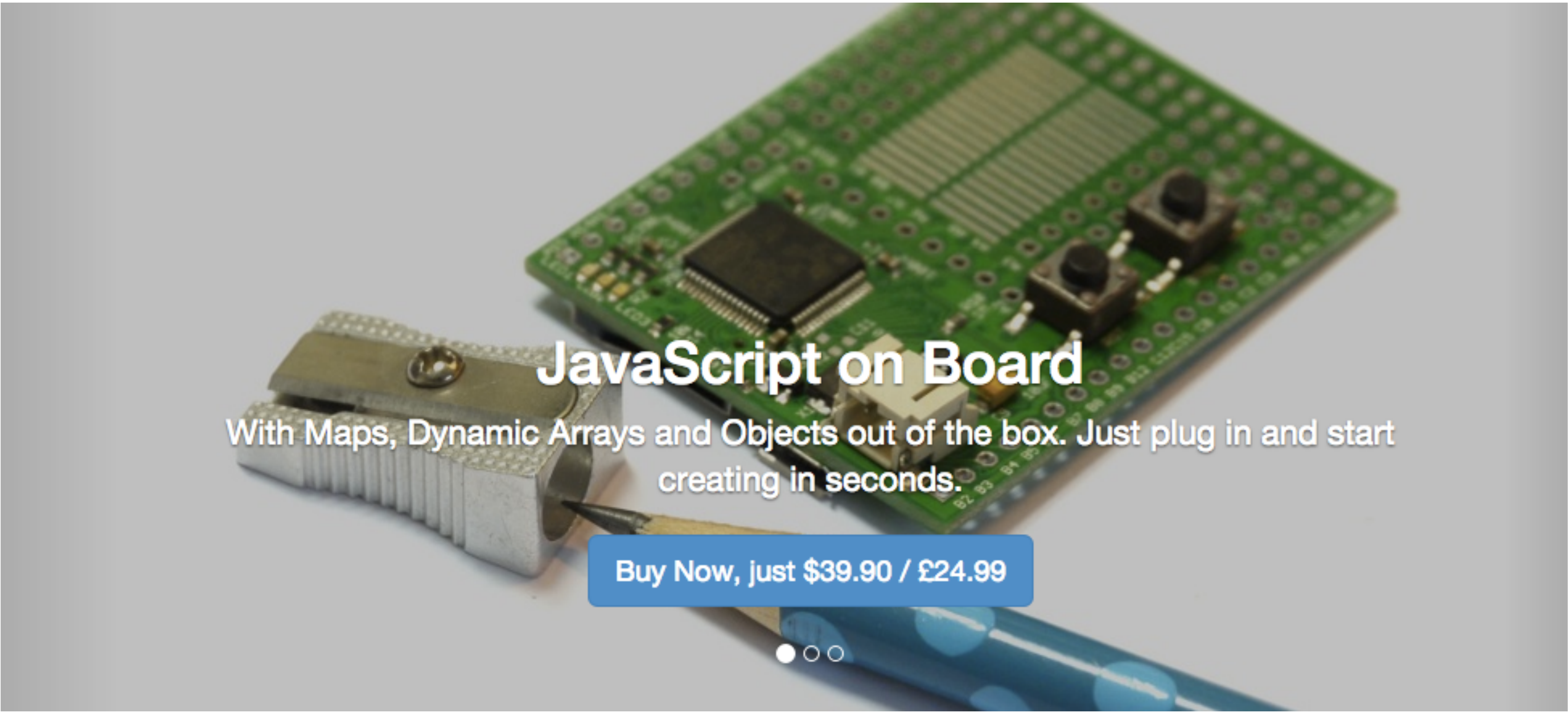
---

✓ Raspbian wheezy

DOWNLOAD



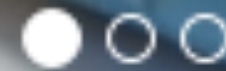
# espruino.com

An Espruino microcontroller board is shown at an angle. It has a green PCB with a large black chip in the center, two push buttons on the right, and a USB Type-C port at the bottom. A silver metal pencil sharpener and a yellow pencil are placed next to it for scale. The background is a plain, light-colored surface.

## JavaScript on Board

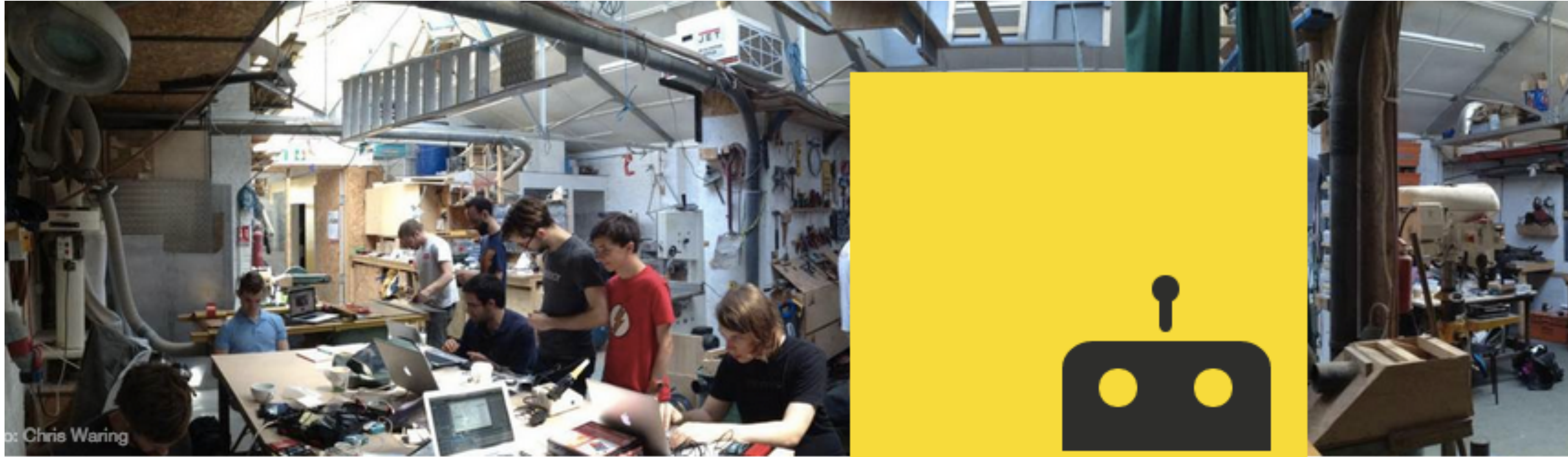
With Maps, Dynamic Arrays and Objects out of the box. Just plug in and start creating in seconds.

Buy Now, just \$39.90 / £24.99





# nodebots.io



# NodeBots

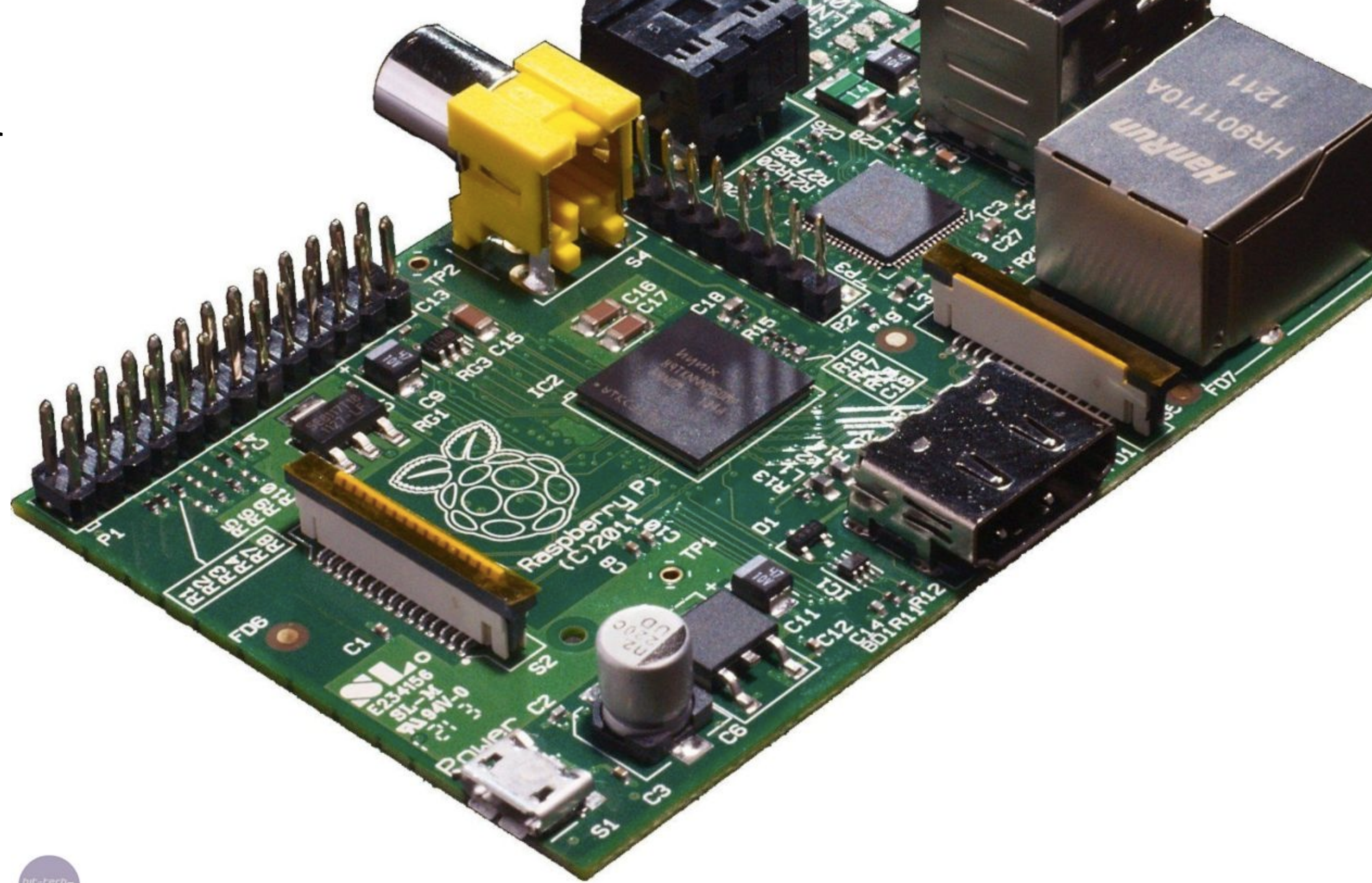
Robots powered by JavaScript



libraries for  
hardware



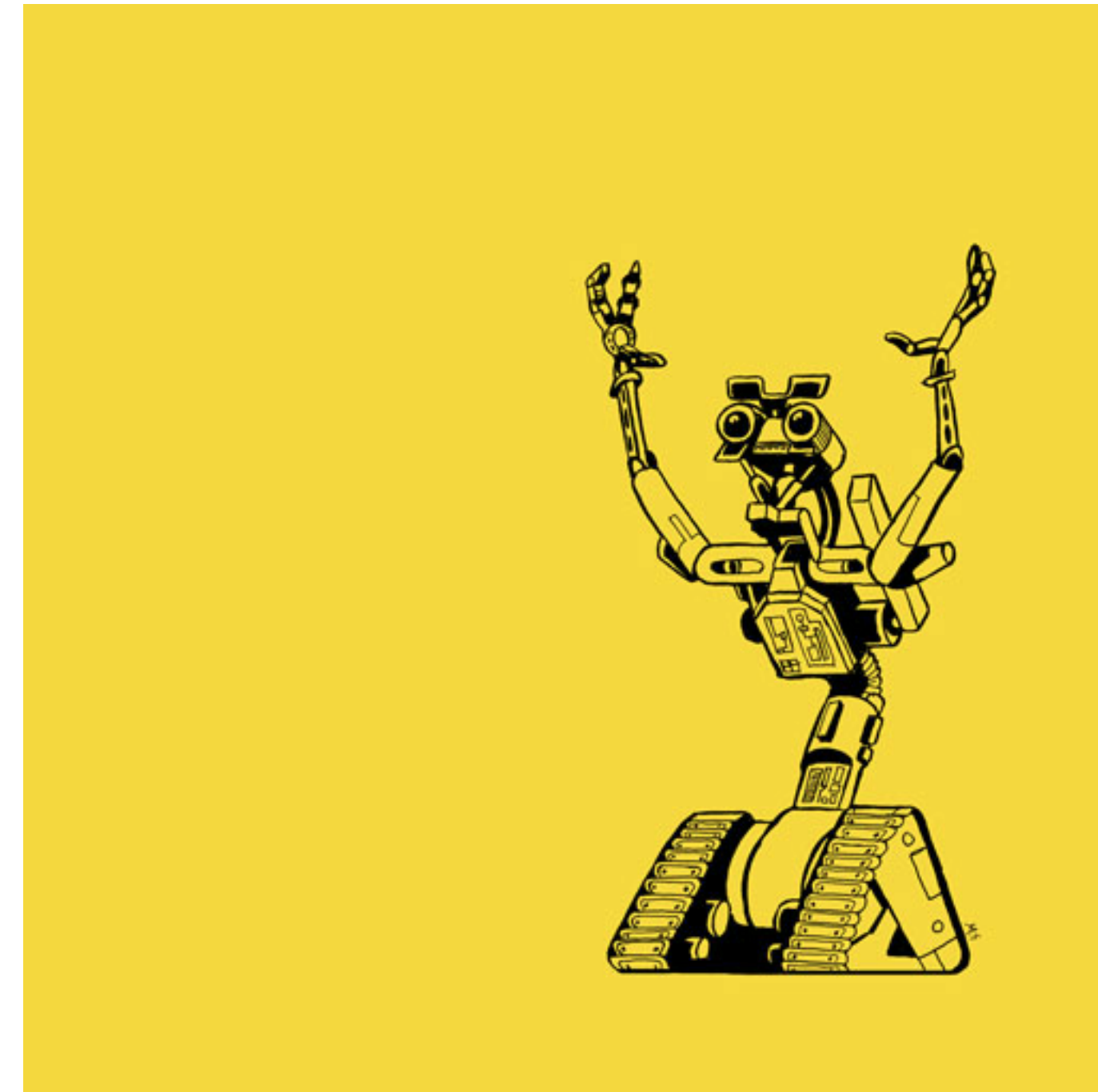
# Raspberry pi



[thejackalofjavascript.com/getting-started-raspberry-pi-node-js/](http://thejackalofjavascript.com/getting-started-raspberry-pi-node-js/)



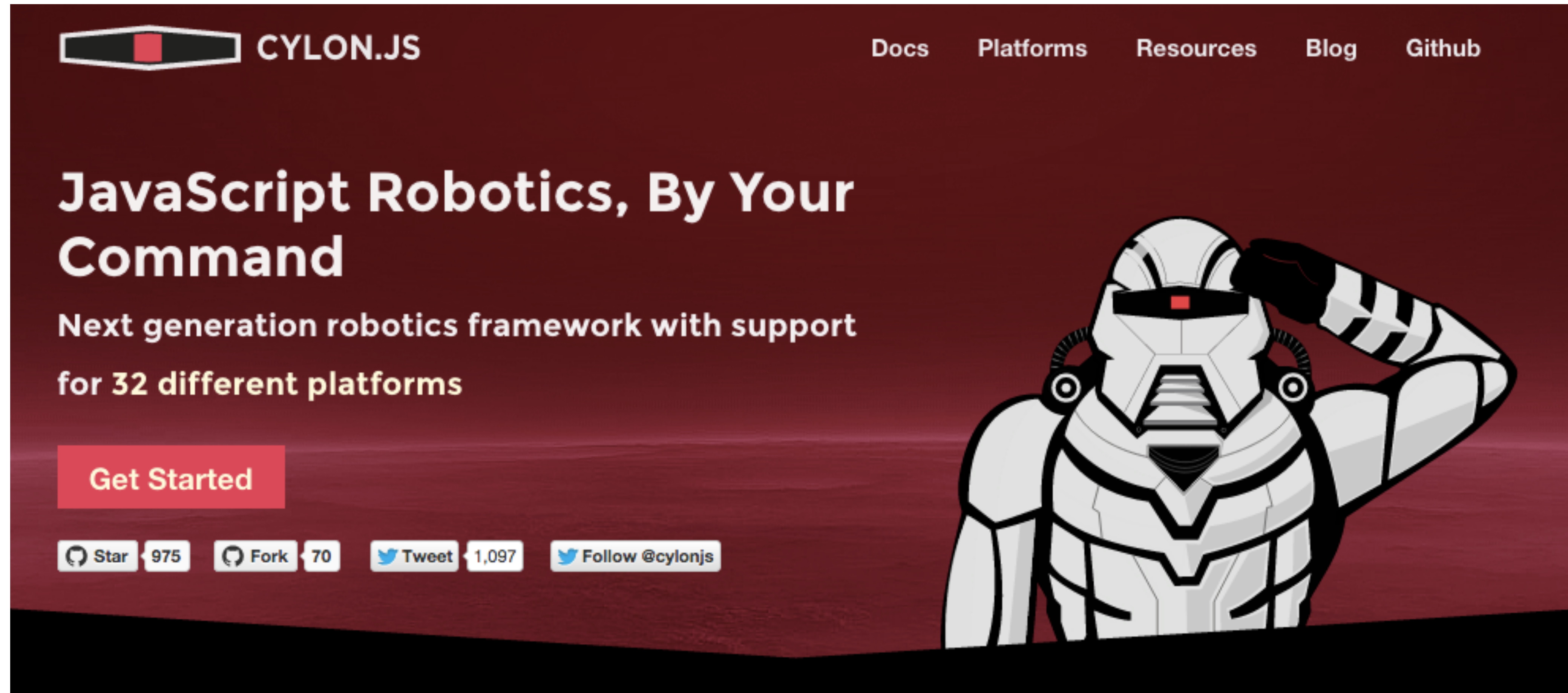
# Johnny Five (Arduino)



[github.com/rwaldron/johnny-five](https://github.com/rwaldron/johnny-five)



# Cylon JS



cylonjs.com

# Cylon JS

ARDrone



Arduino



Arduino YUN



Audio



Beaglebone Black



BLE



Crazyflie



Digispark



Intel Galileo



Intel Edison



Joystick



Keyboard



Leap Motion



M2X



MQTT



Nest



Neurosky



Ollie



OpenCV



Pebble



# Cylon JS

Philips Hue



Pinoccio



PowerUp



Rapiro



Raspberry Pi



Salesforce



Skynet



Spark



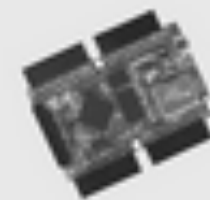
Speech



Sphero



Tessel



WICED Sense





**node-bleacon**



iBeacon

[github.com/sandeepmistry/node-bleacon](https://github.com/sandeepmistry/node-bleacon)

Code time!

firtman@gmail.com  
@firt

5pm ModevLounge  
Book signing

[firt.mobi/mh5](http://firt.mobi/mh5)

[firt.mobi/pmw](http://firt.mobi/pmw)

