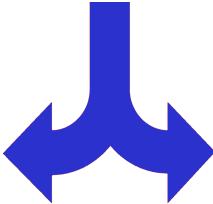


GERGANA YOUNG

THE PHYSICAL WEB

AND BEYOND



Gergana  Gery

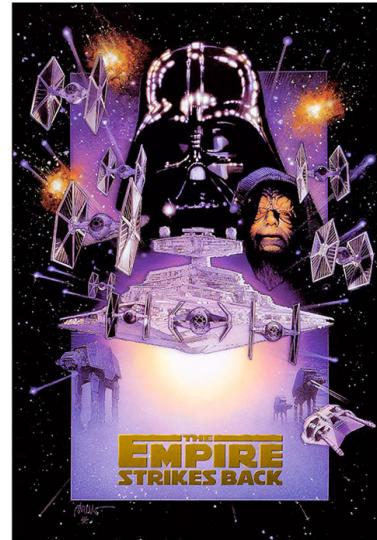
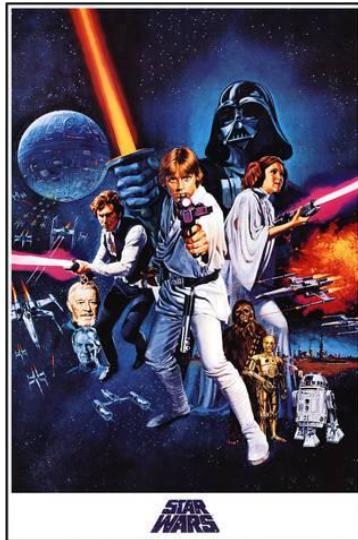


THE PHYSICAL WEB

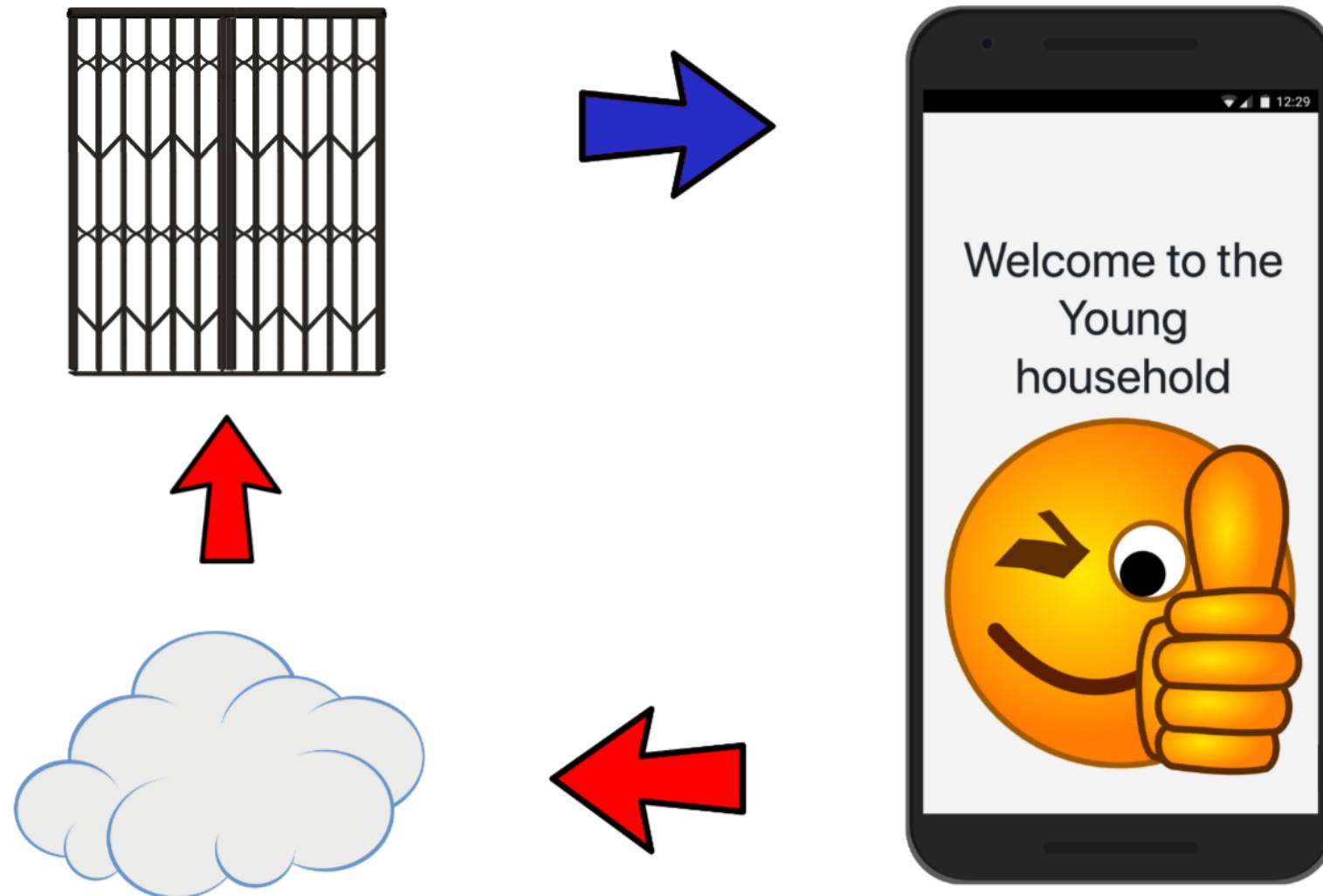


- Sharing Information
- Making Smarter Things
- Connecting to Things

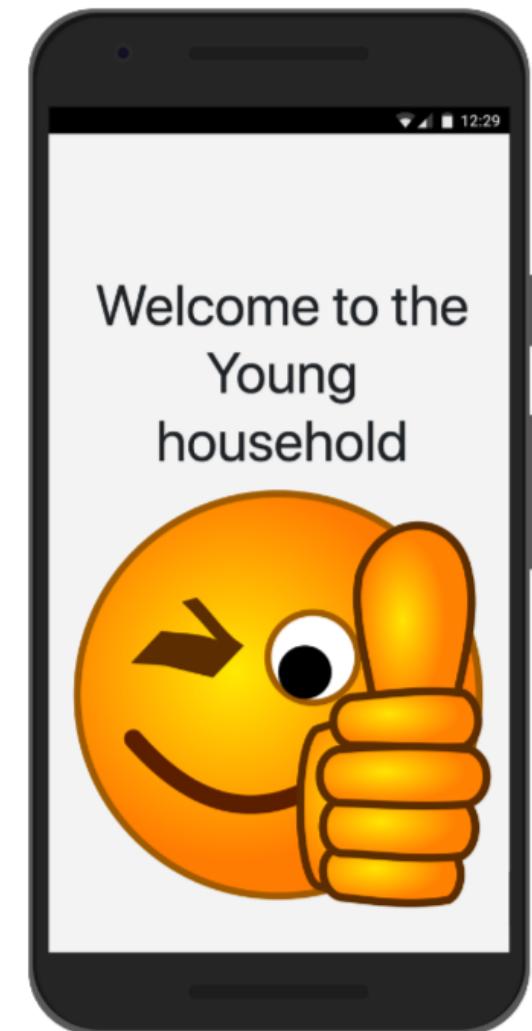
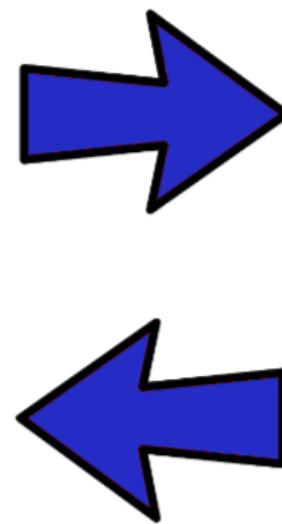
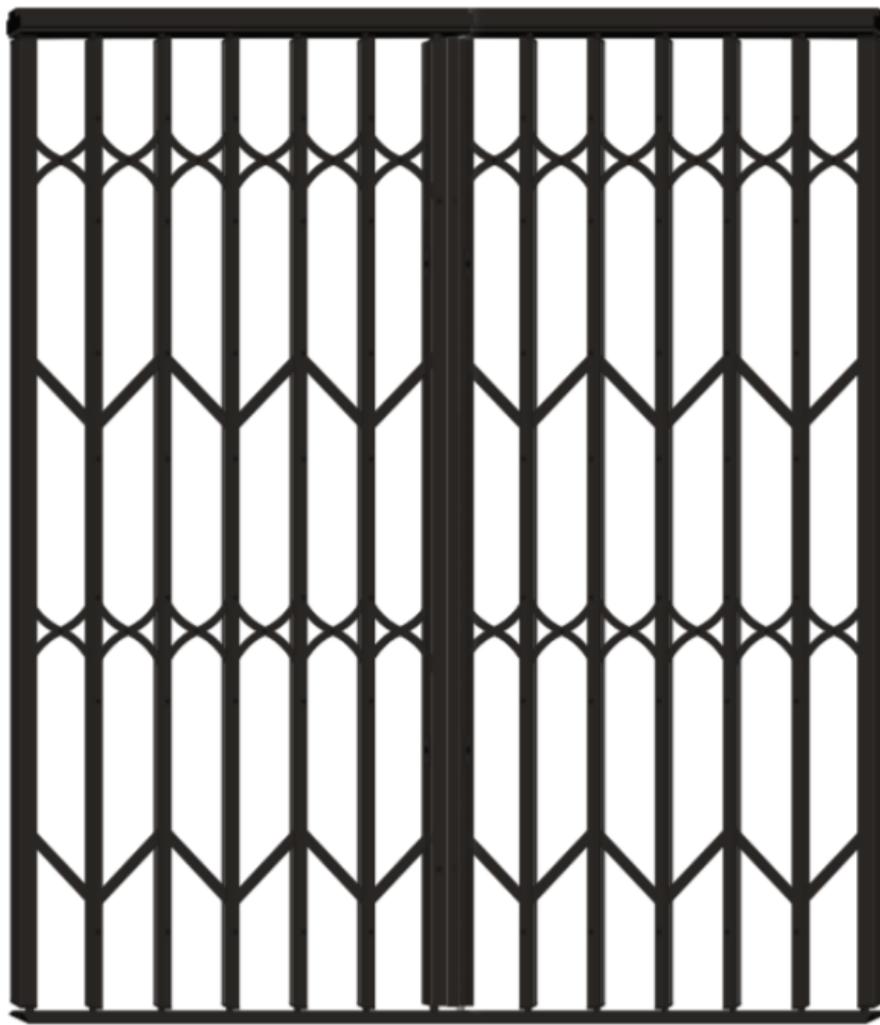
SHARING INFORMATION



MAKING SMARTER THINGS



CONNECTING TO THINGS



BLUETOOTH DEVICES

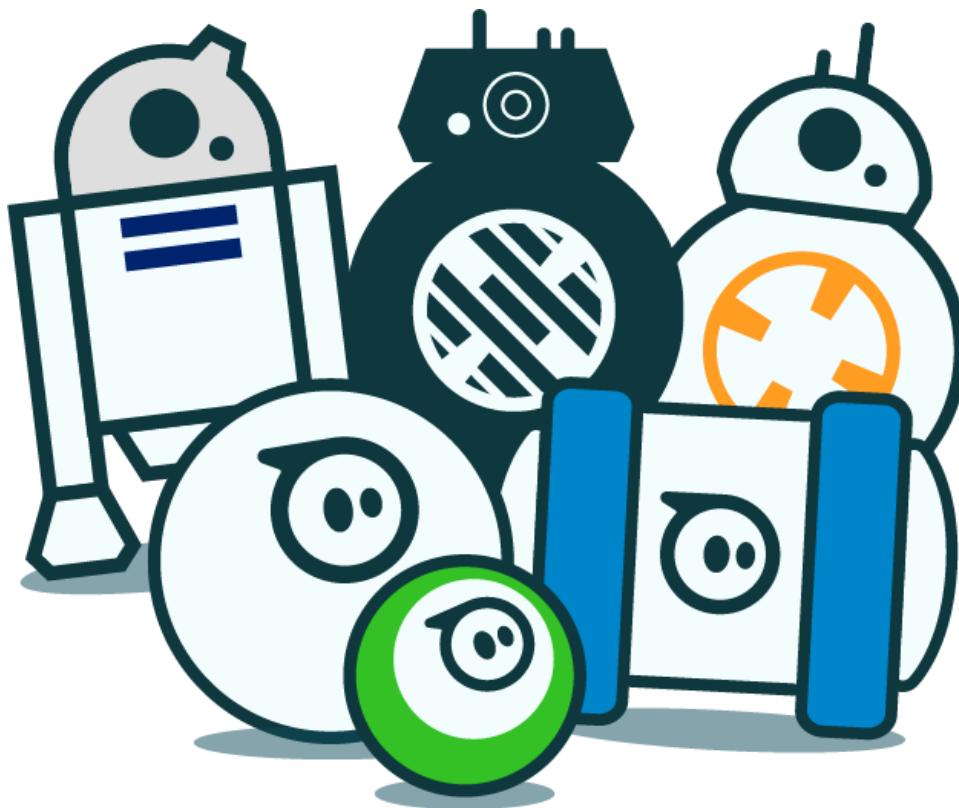


GATT - GENERIC ATTRIBUTES

PROFILE:

- Services
- Characteristics

SPHERO BB-8



THE API

Orbotix Communication API

revision 1.50



BITWISE MATHEMATICS IN JS

$$\begin{array}{rcl} 255 \text{ (base 10)} & = & 11111111 \text{ (base 2)} \\ ^\wedge \quad 9 \text{ (base 10)} & = & 00001001 \text{ (base 2)} \\ & & \hline \hline & & 11110110 \text{ (base 2)} \\ \hline & & \\ & & \\ = & 246 \text{ (base 10)} & \end{array}$$

BITWISE OPERATORS

- & - AND
- | - OR
- >> - Right Shift (Sign Propagating)
- >>> - Right Shift (Zero Fill)

DEMO



DEMO DONE!



WEB BLUETOOTH LIMITATIONS

- Only Low Energy
- Only Central Connections
- Security Concerns
- Support Concerns

OS SUPPORT

Linux Kernel 3.19+ and BlueZ 5.41+

Mac OS OS X Yosemite or later

Windows Windows 8.1 or later

Android Android 6.0 or later

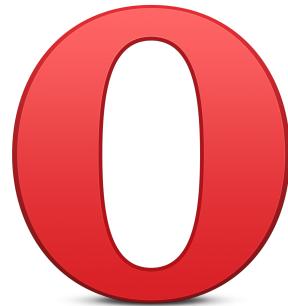
iOS No official support yet*

BROWSER SUPPORT

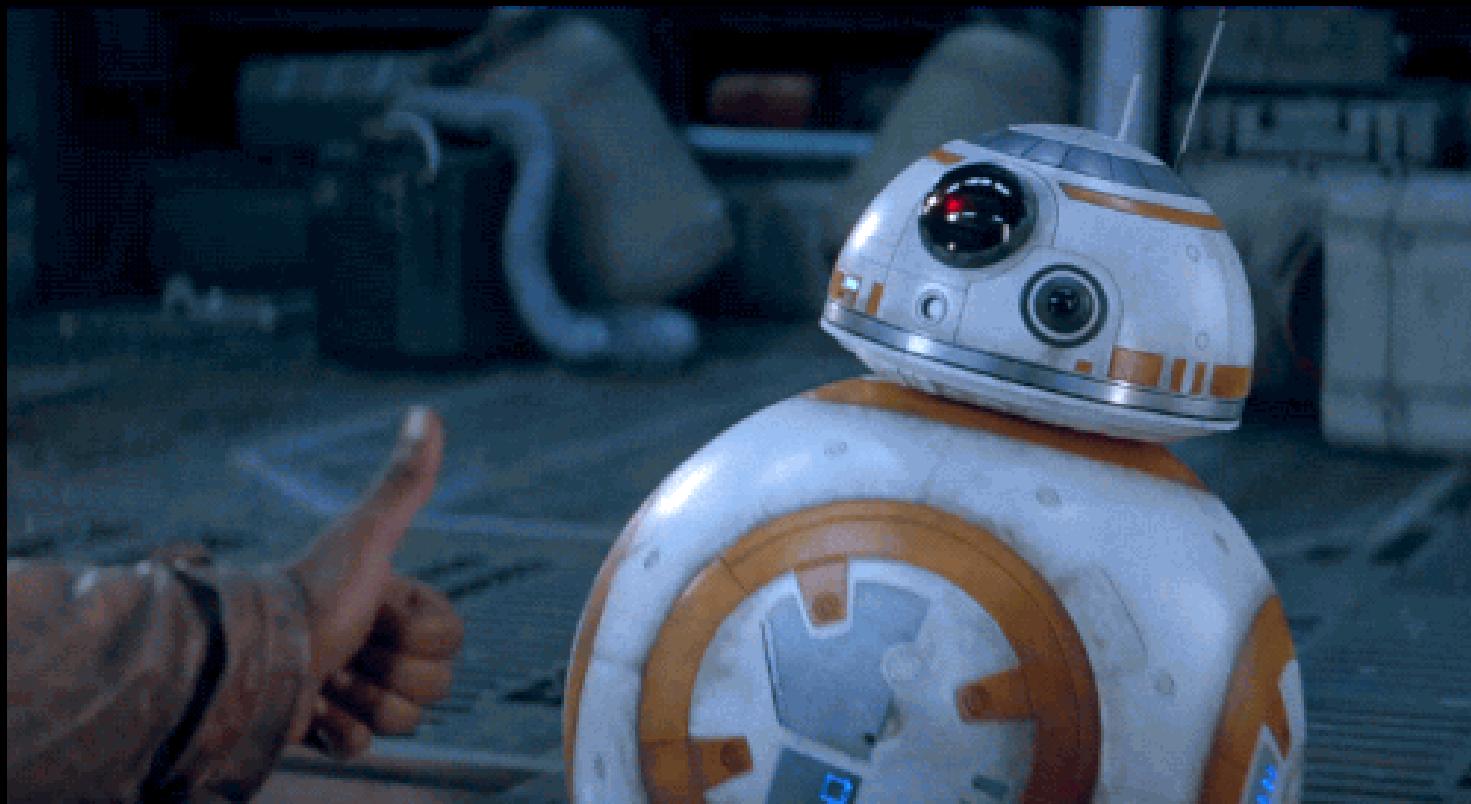
YES

Under Consideration

Unknown



<https://droid-hack.firebaseio.com>





**THANK YOU
QUESTIONS?**



@gerybbg



geryb-bg