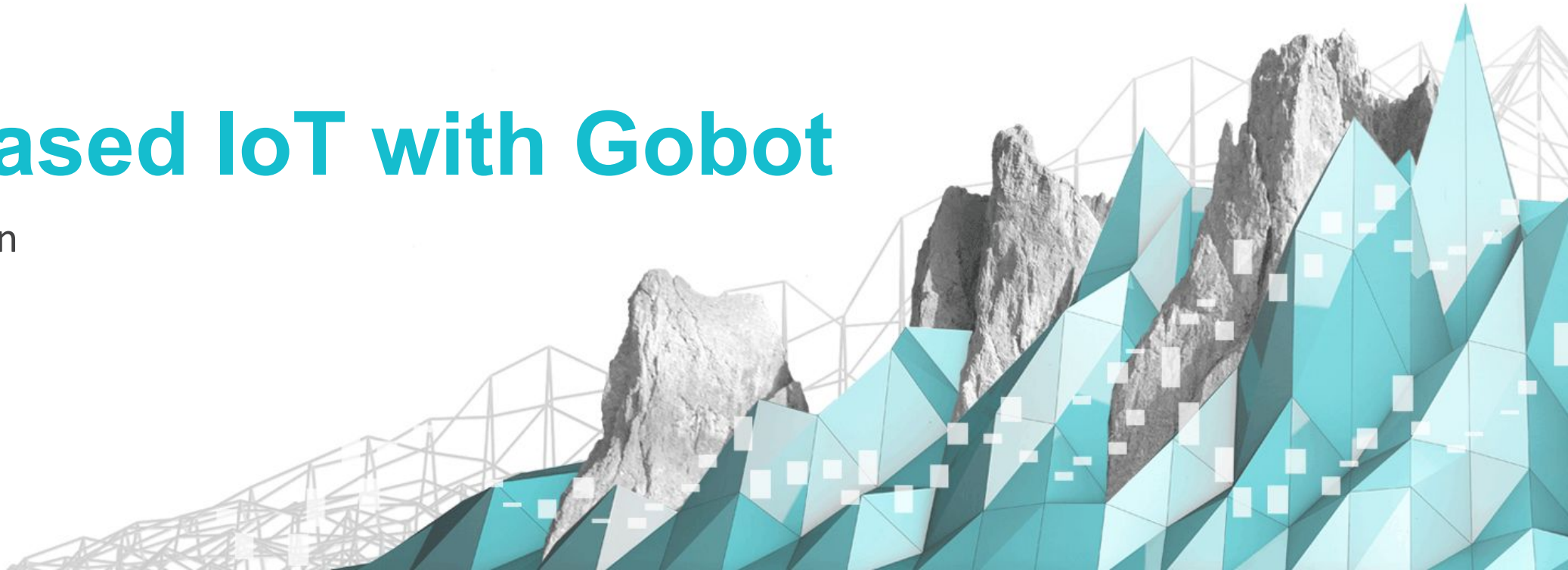


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Go-based IoT with Gobot

Trevor Rosen

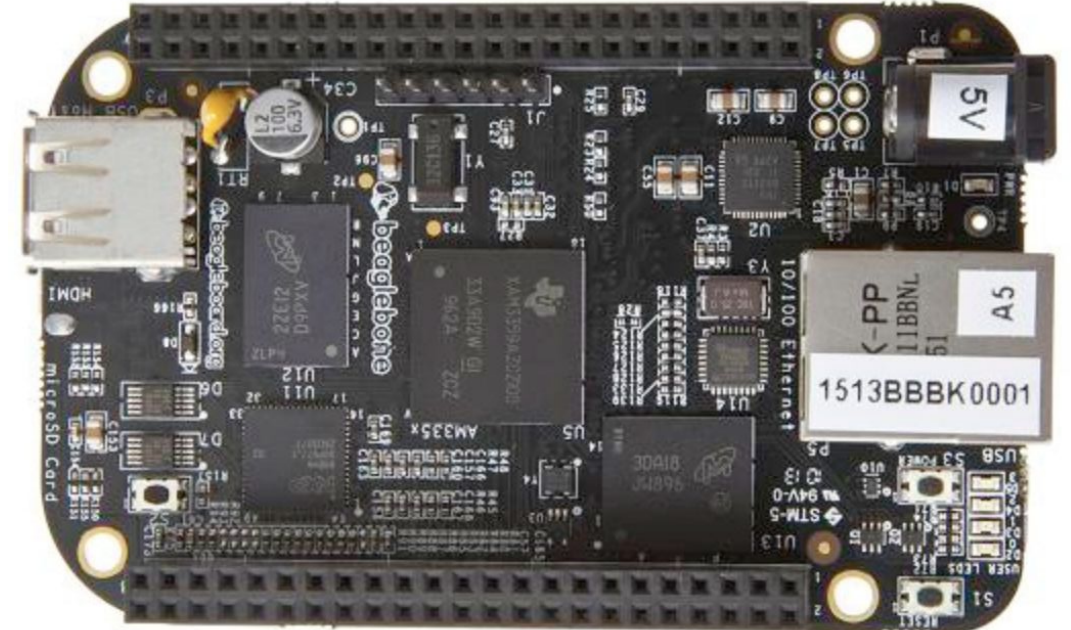
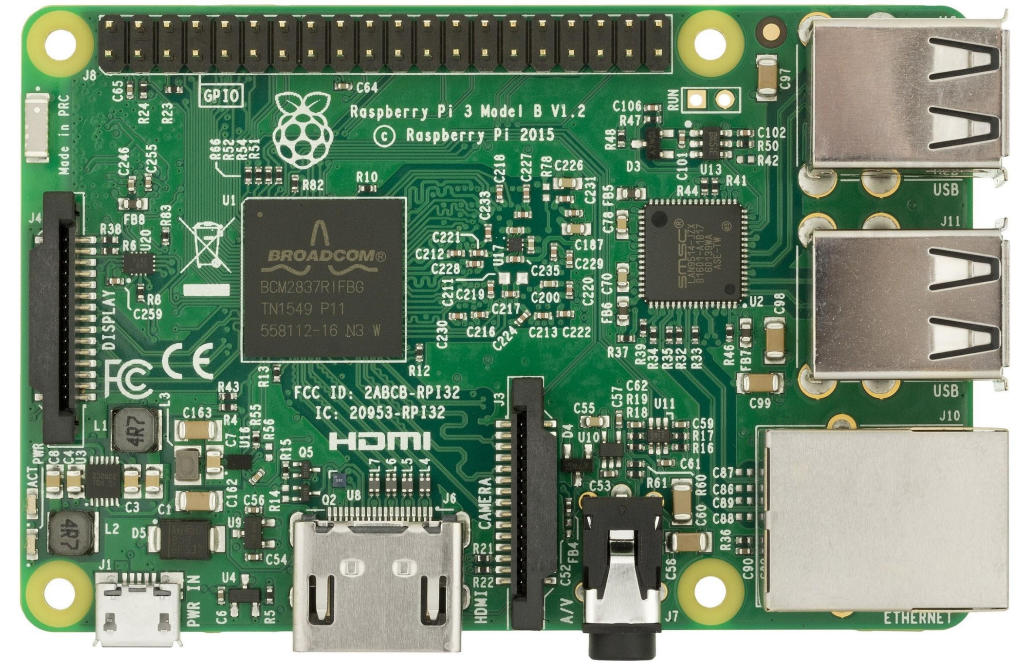


“The **Internet of things (IoT)** is the network of physical devices, vehicles, home appliances, and other items **embedded** with **electronics, software, sensors, actuators,** and **network connectivity** which enable these objects to connect and exchange **data.**”

- Wikipedia

Single-board computers

- Low-cost
- Relatively powerful
 - Run full versions of Linux
 - Wifi, Bluetooth, HDMI, SDcard
 - Multi-gig persistent storage
 - 512MB RAM or better
 - ARM chips at 1ghz or better
- Good for prototyping
 - GPIO, analog, I2C
- Useful in a wide variety of applications



Go, Robot, Go!

Golang Powered Robotics

Next generation robotics/IoT framework with support for 32 different platforms

Start Now



Star

3,693



Fork

427



Tweet



Follow @gobotio

Gobot is a framework for robots, drones, and the Internet of Things (IoT), written in the Go programming language

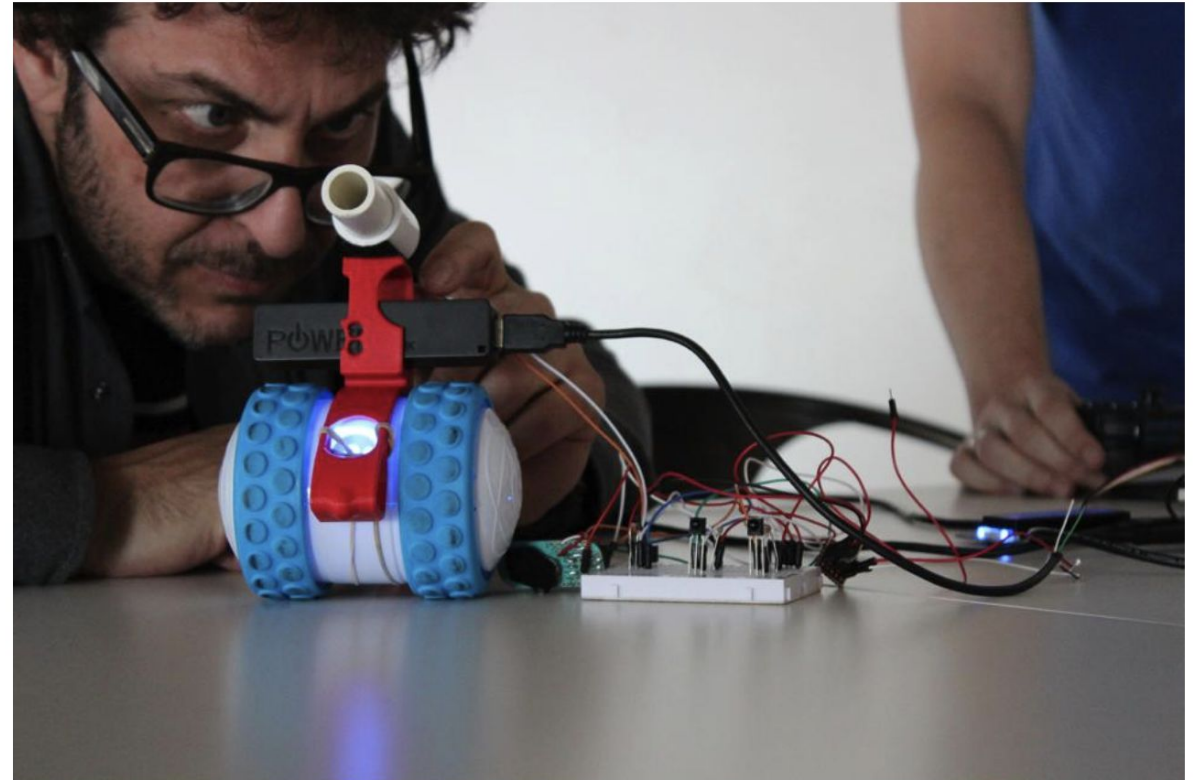


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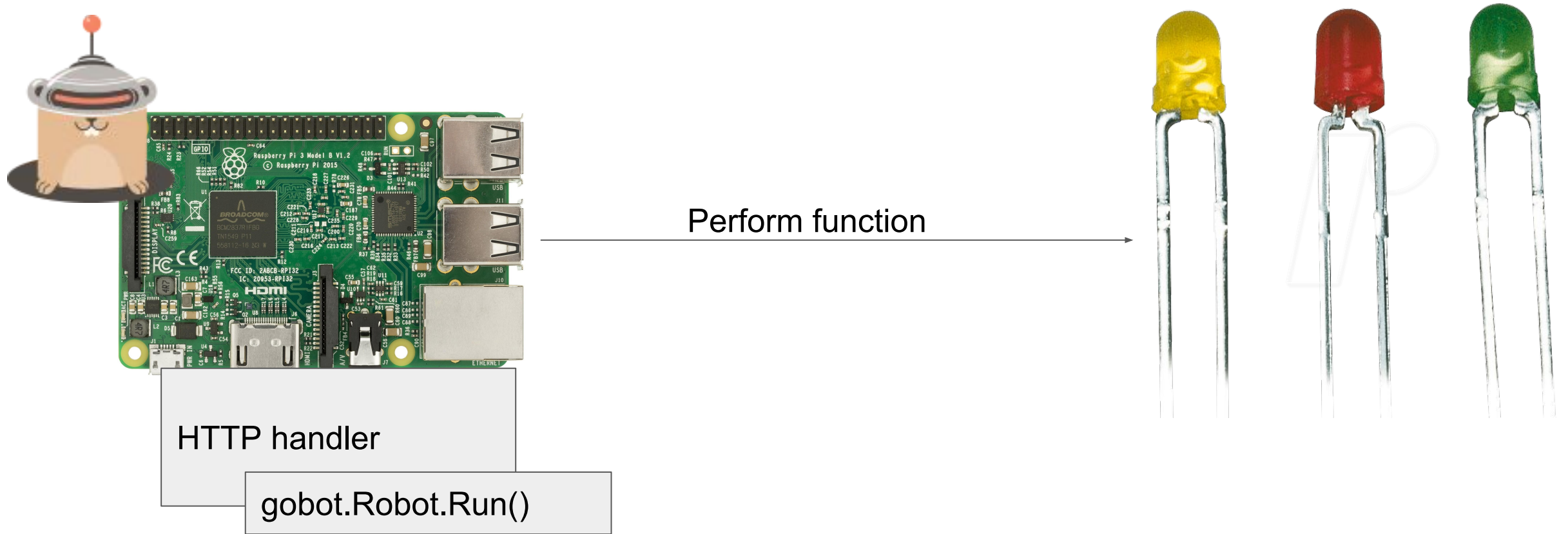
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Abstractions for toys, busses, boards

- 32 supported platforms
 - Common single-boards
 - Toys such as Sphero, ARDrone, Bebop
 - Human-computer interface stuff
Neurosky and LeapMotion
 - Bluetooth LE
- Drivers for GPIO, analog, I2C
- “Robot” abstraction is a software construct that can be given work to do. Leverages Go interfaces to give any project a common rudimentary command set.
- HTTP API for controlling Robots



Gobot HTTP API



Demo Code

```
package main

import (
    "time"

    "github.com/hybridgroup/gobot/platforms/gpio"
    "github.com/hybridgroup/gobot/platforms/intel-iot/edison"
)

func main() {
    e := edison.NewEdisonAdaptor("edison")
    ticker := time.NewTicker(time.Millisecond * 500)
    greenLed := gpio.NewLedDriver(e, "led", "2")

    for t := range ticker.C {
        greenLed.Toggle()
    }
}
```

*Initialize an
Edison adaptor*

*Use LED driver
and abstraction*

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