Microsoft

Go to the Edge

Liam Hampton
Cloud Advocate @ Microsoft

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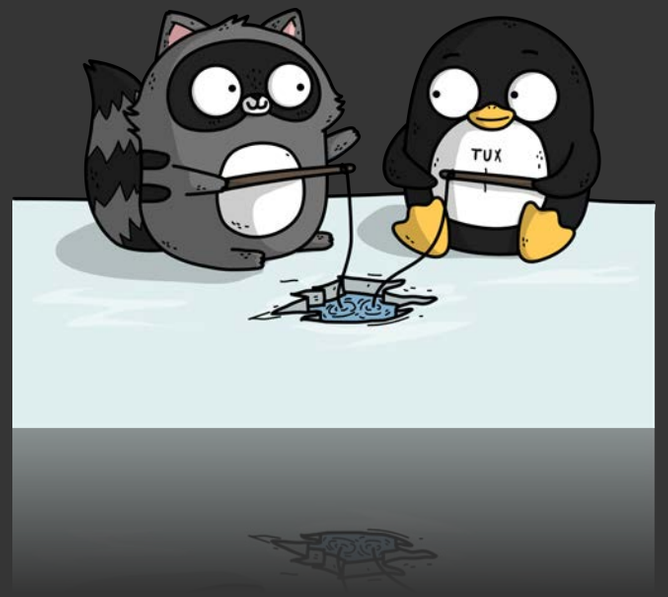
Agenda

- About me
- How did I find TinyGo?
- What is TinyGo?
- My projects
- Demo



Microsoft

- Microsoft Regional Cloud Advocate
- Open source contributor
- Golang & Node.js Software Engineer
- Technical blogger
- IoT Enthusiast
- Public speaker

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How did I find TinyGo?

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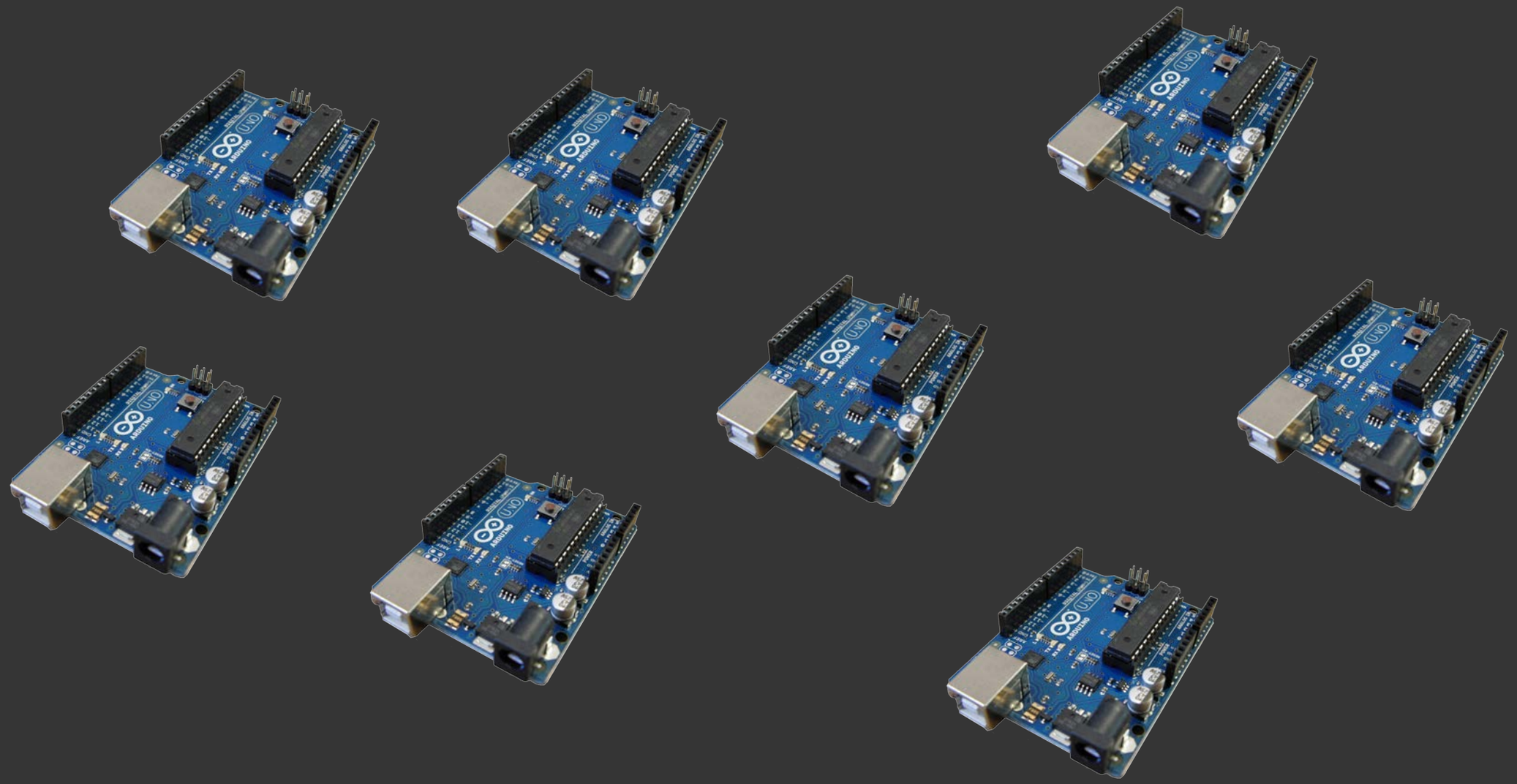
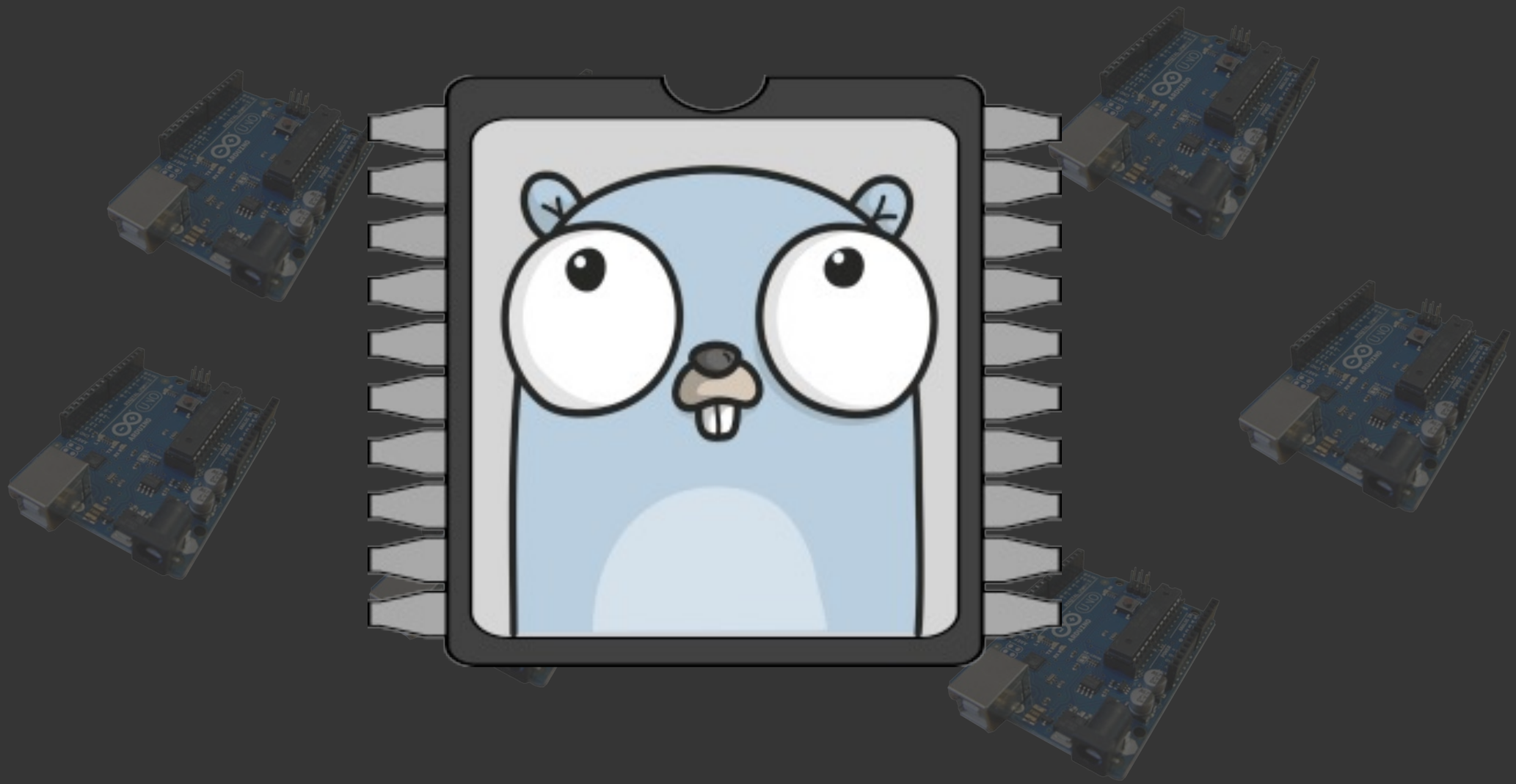


How did I find TinyGo?



What is TinyGo?

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“A Go compiler for small places”

- https://tinygo.org

TinyGo - https://tinygo.org

archive/zip

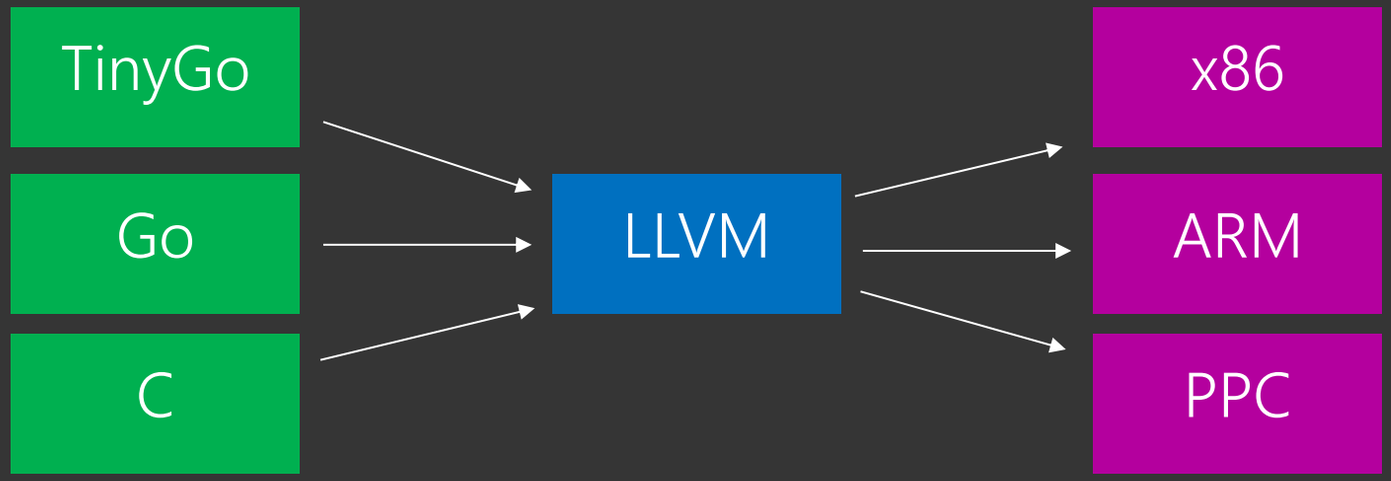
bytes

io

- [x] html/template
- [x] net

LLVM

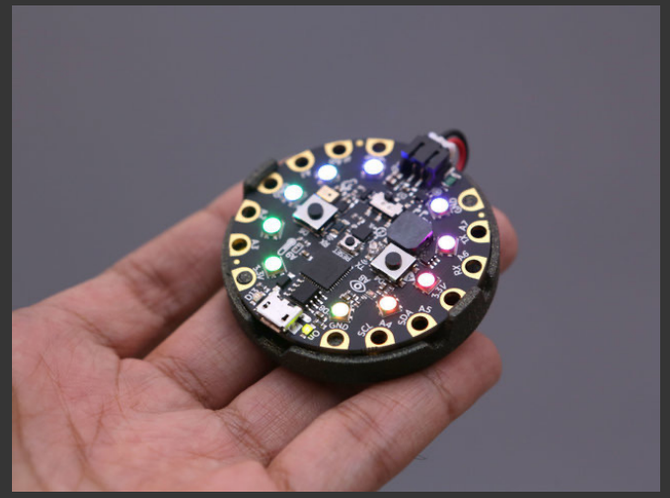
- Strategy to support static and dynamic compilation
- Collection of compiler and toolchain technologies
- Open source
- https://llvm.org/



What is it used for?

Microcontrollers

Microcontrollers



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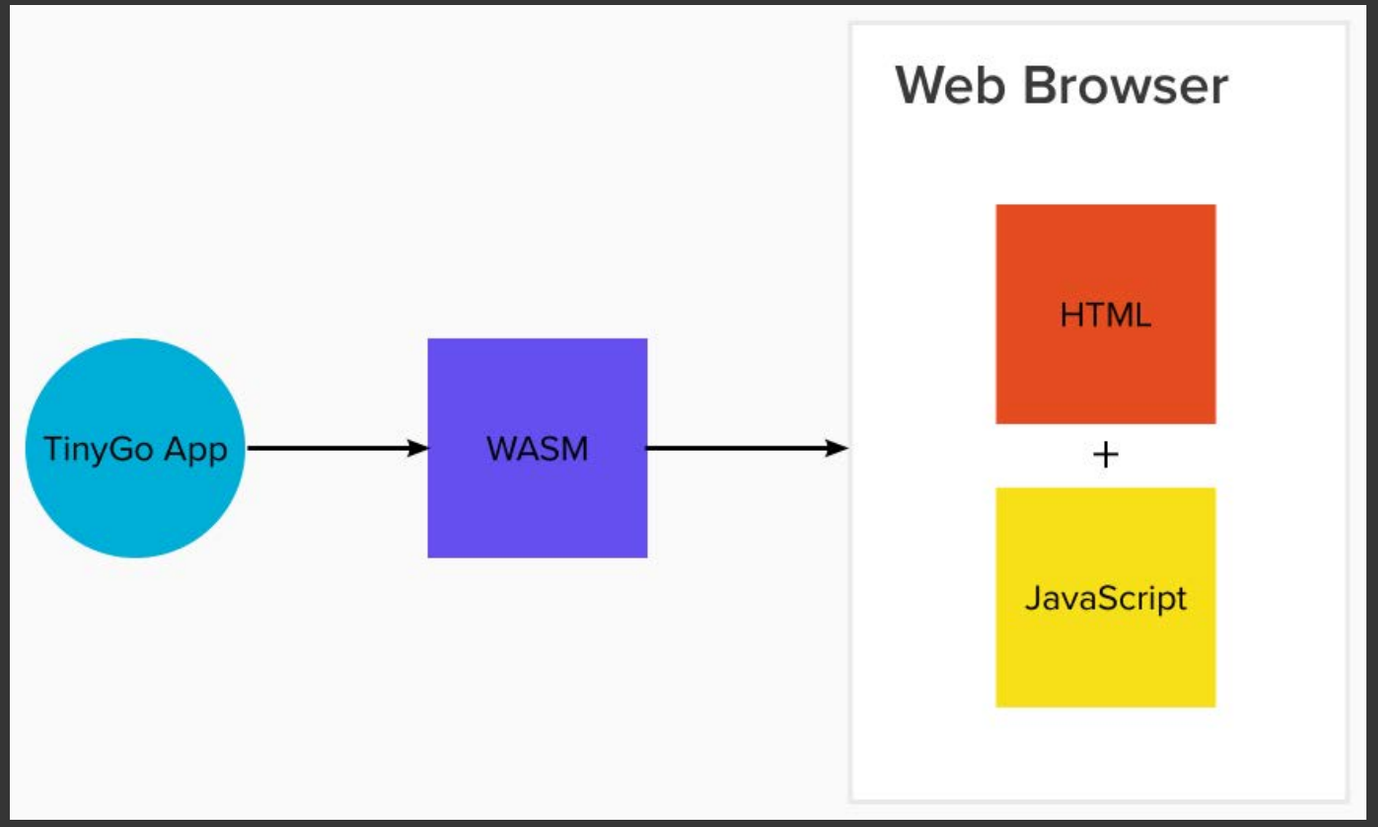
Microcontrollers

70+ Boards!!

Microcontrollers

Web Assembly

Web Assembly



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Microcontrollers

Web Assembly

CLI

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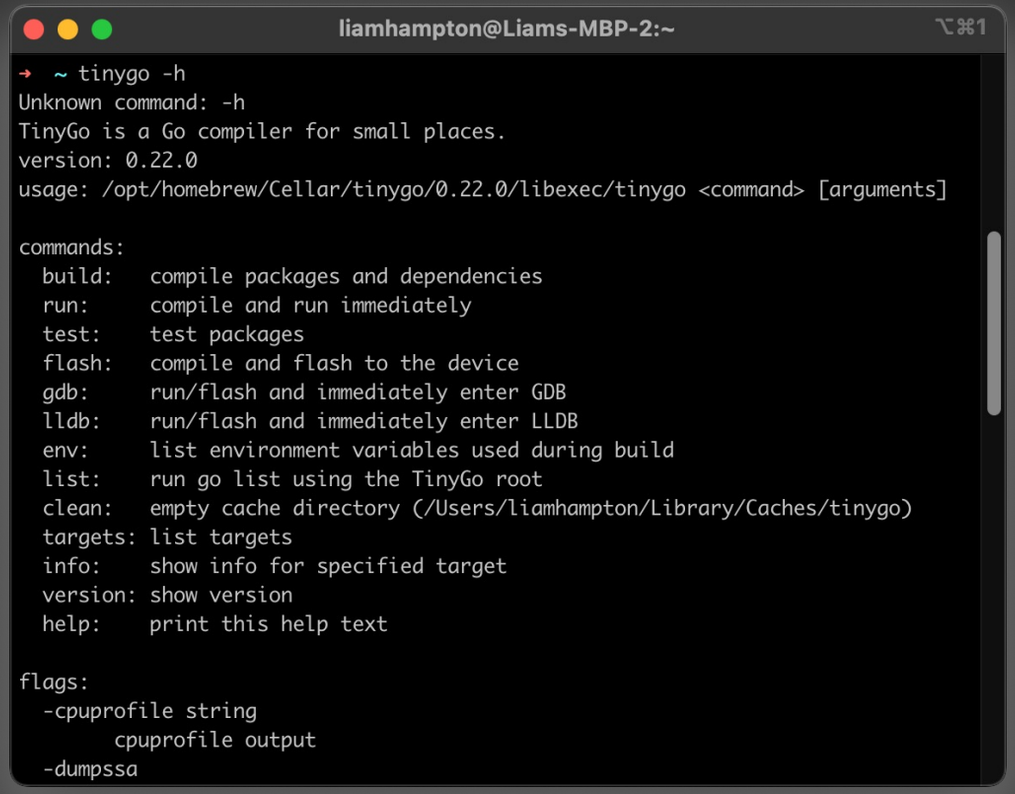
Command Line Interface (CLI)



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Where do I use TinyGo?

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To prevent this

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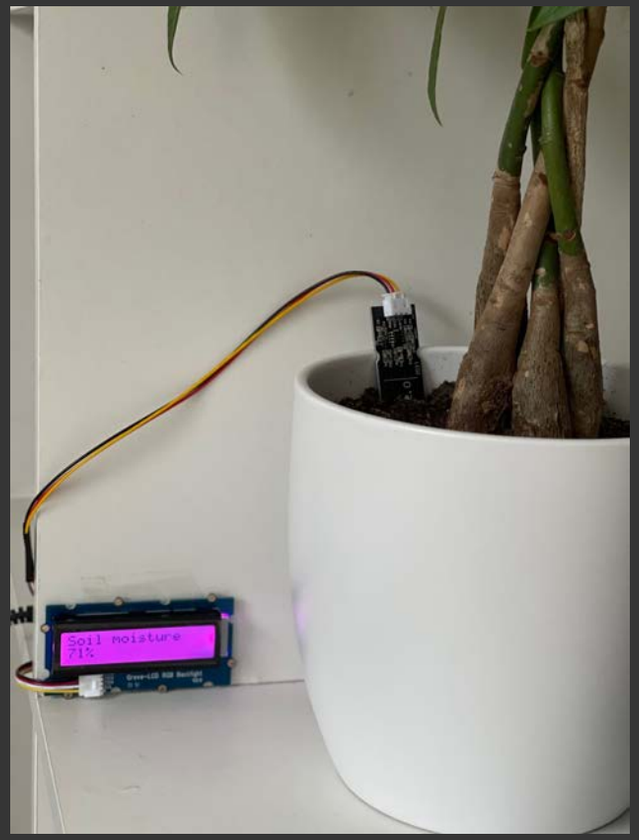
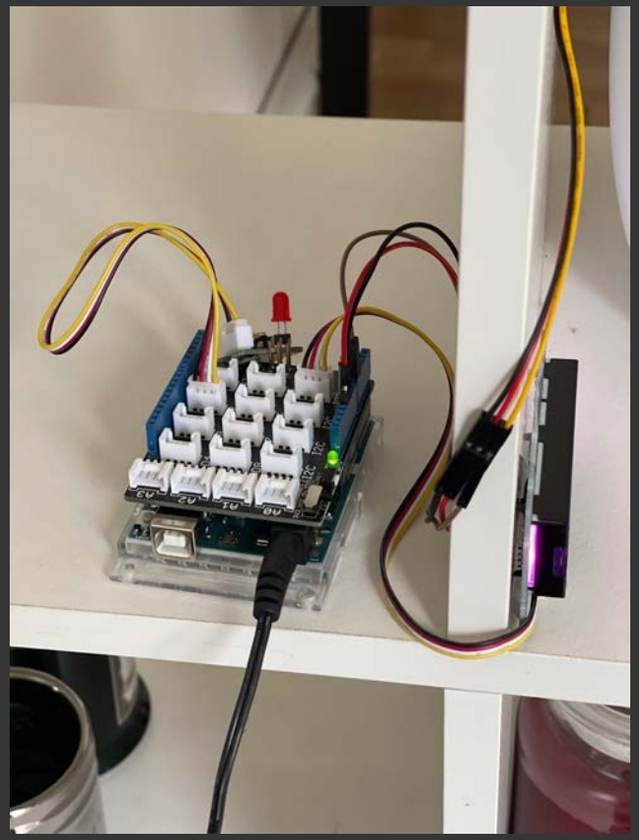
I made this..

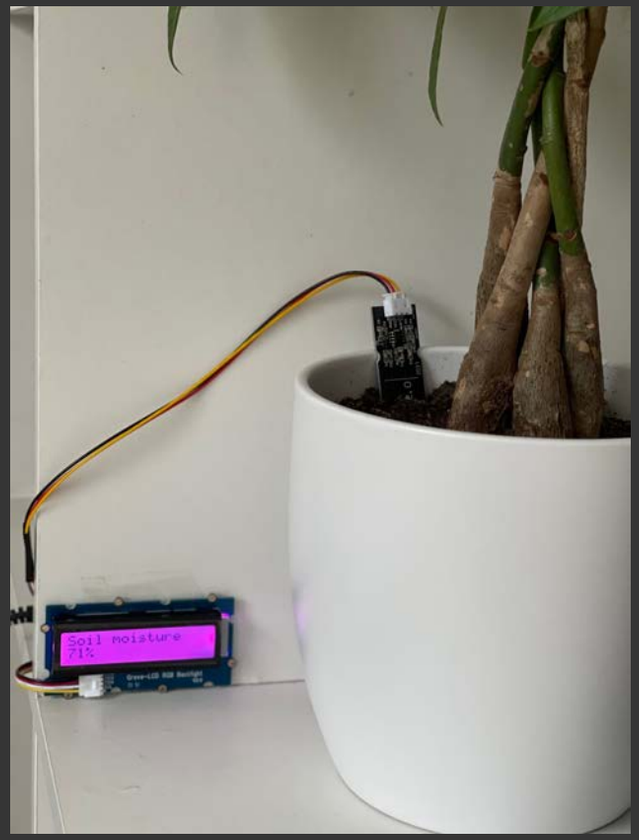
Input



Calculations



Output



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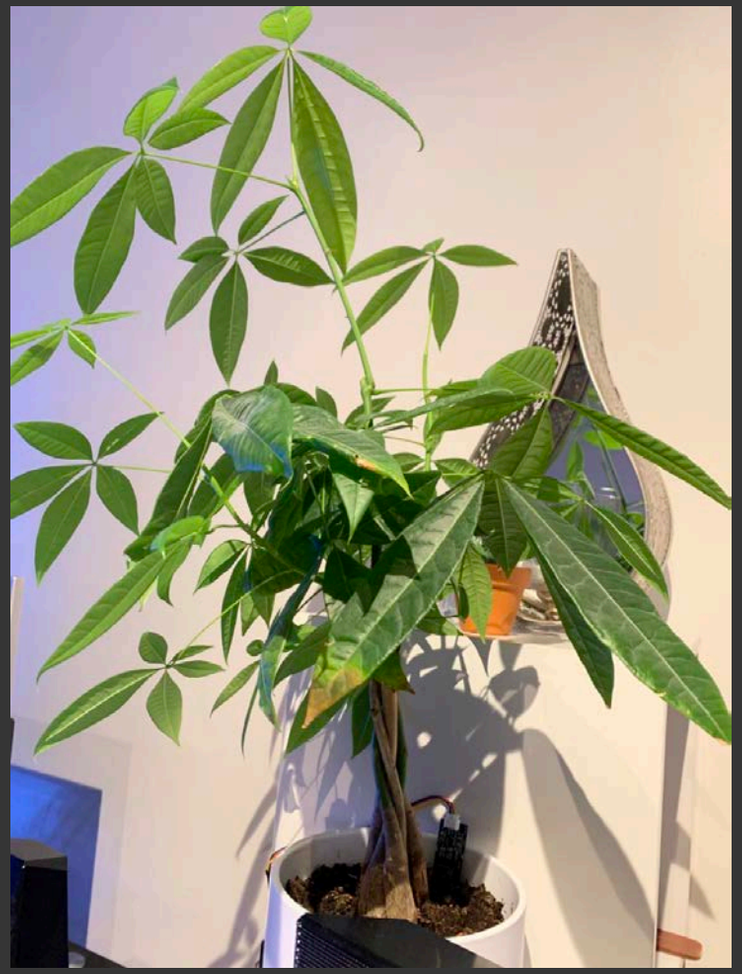
Keeps it looking fresh!



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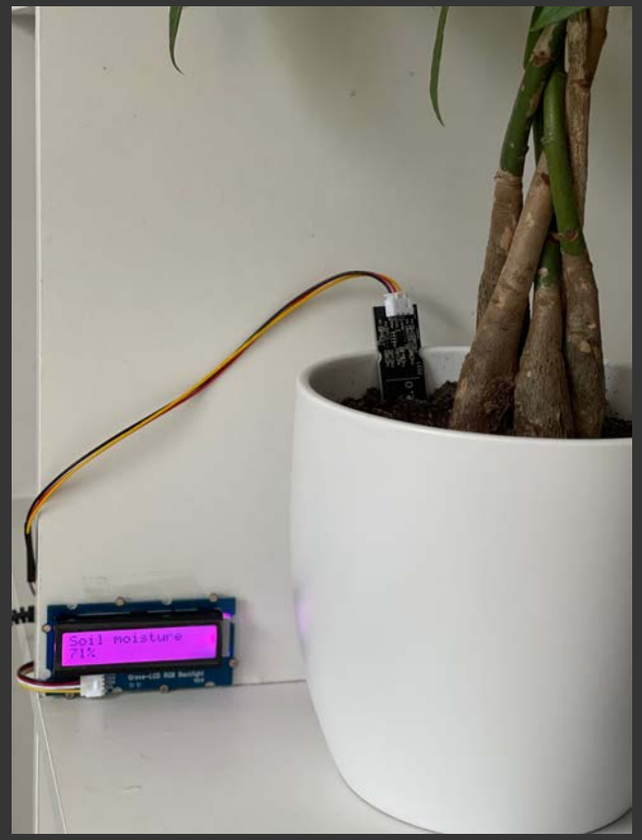
Next step..



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Post notification

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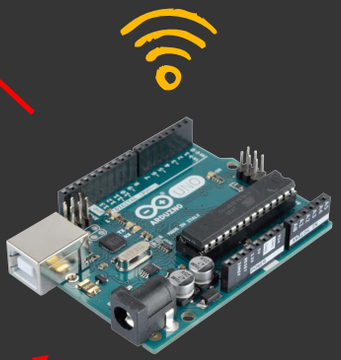

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Post notification

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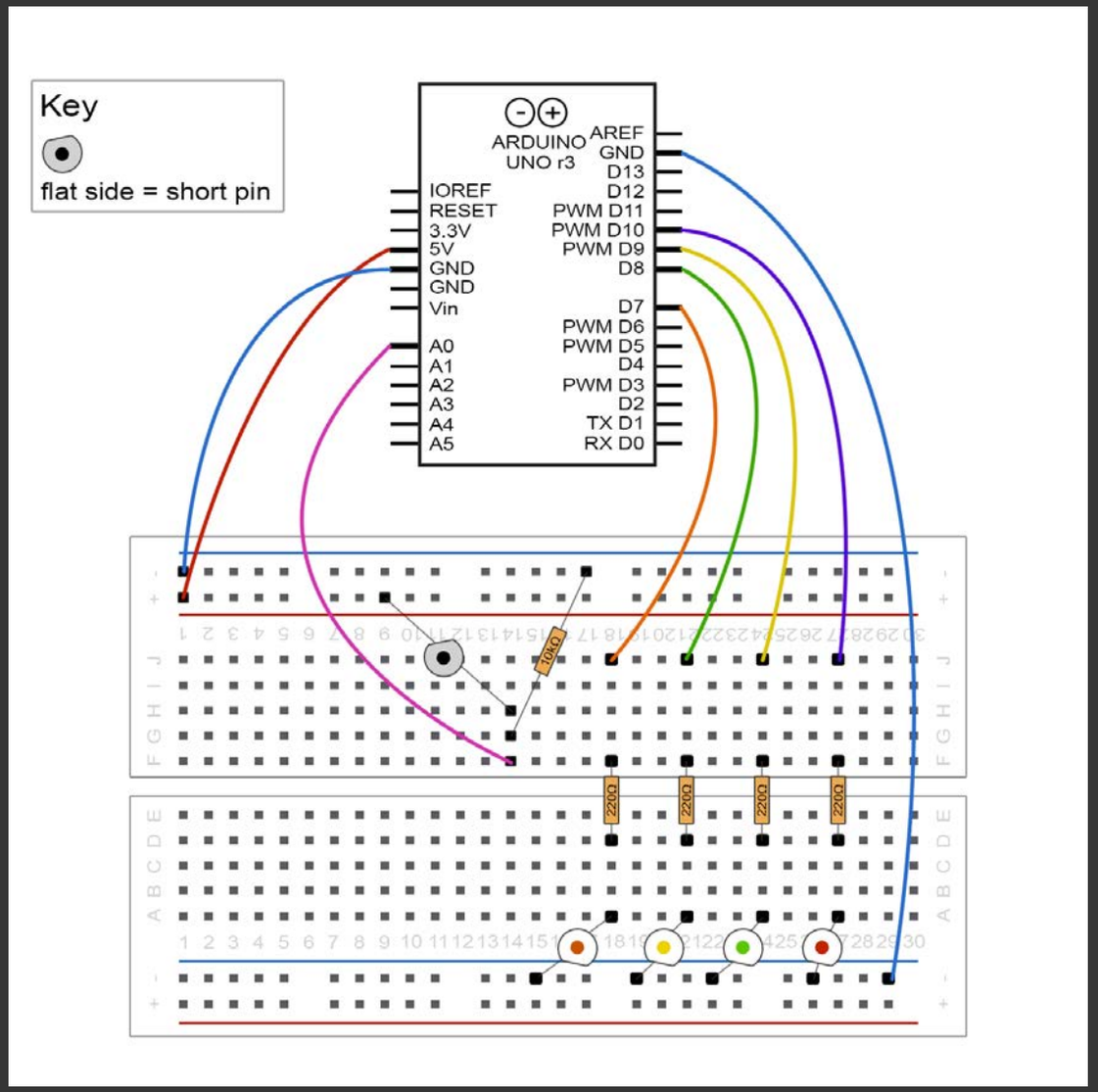
Post notification (Phase 1)



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Let me show you..

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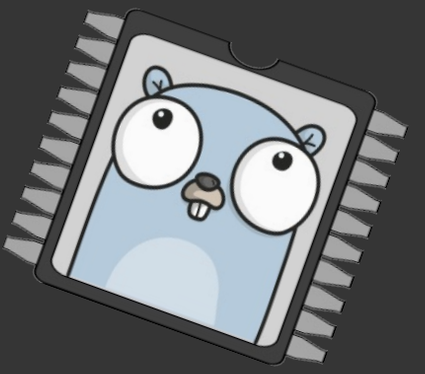
Demo

- Syntax is no different to Go!
- Arduino Uno R3
- Visual Studio Code
- TinyGo VSCode plugin

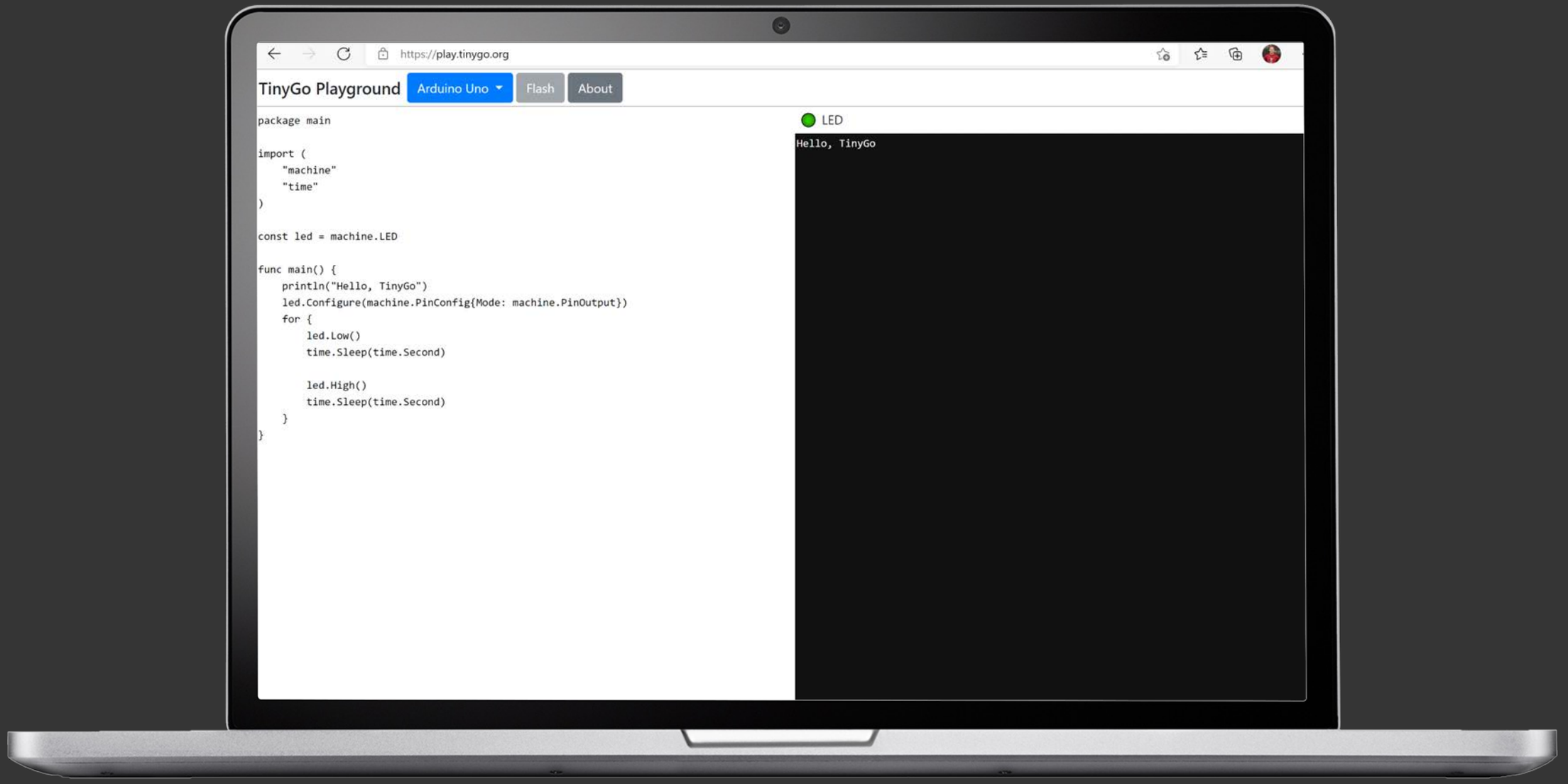


```
➜  ~ go version
go version go1.17.6 darwin/amd64
➜  ~ tinygo version
tinygo version 0.22.0 darwin/amd64 (using go version go1.17.6 and LLVM version 13.0.0)
➜  ~
```

What are my upcoming projects?

- Macropad for streaming (RP2040)
- A Lego wheel for GitHub notifications
- Dashboard with home sensors

TinyGo Playground - https://play.tinygo.org



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Thank you!

/in/liam-conroy-hampton

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