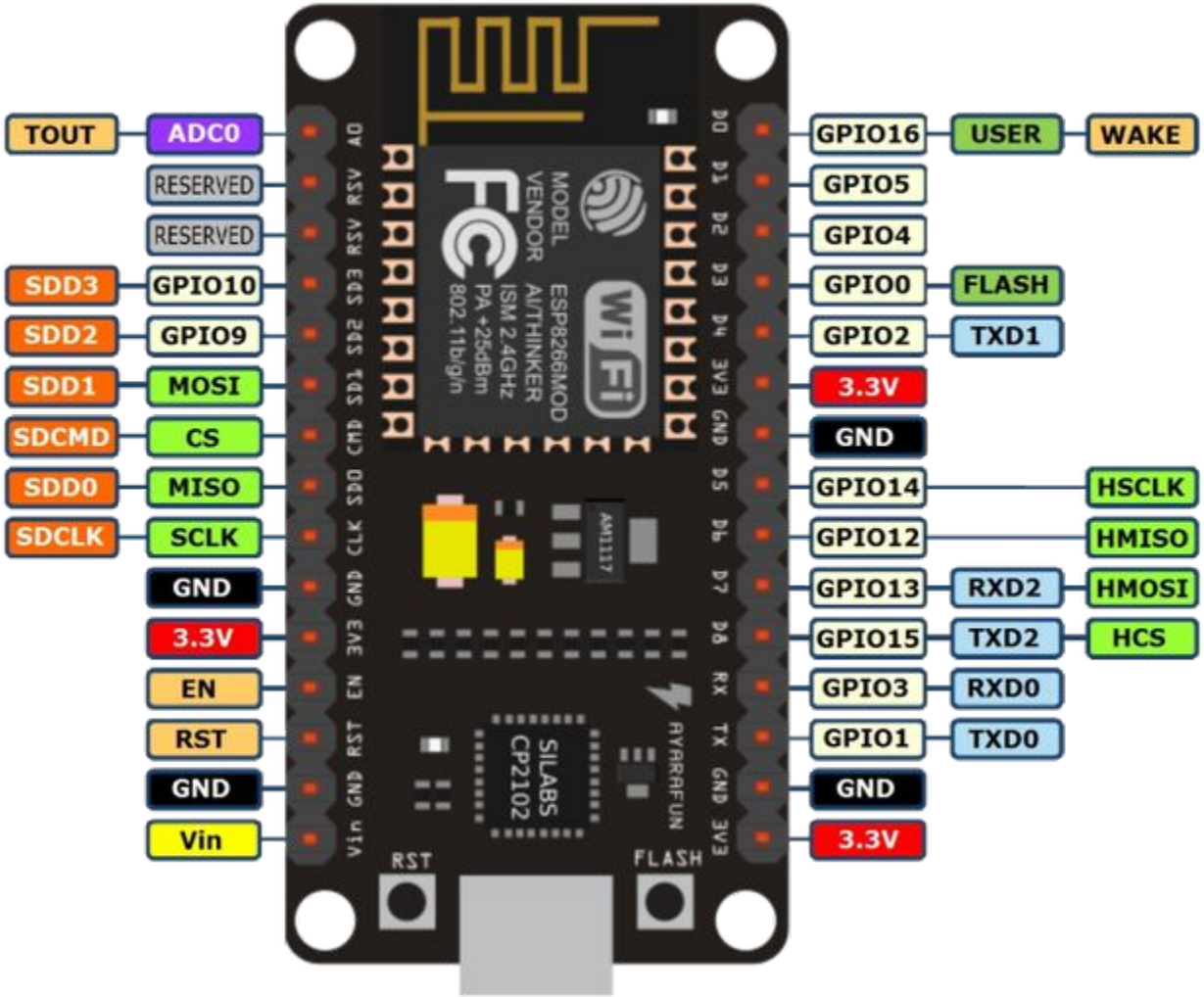
Pinup III

Revenge of the pins

By Patrick Groh

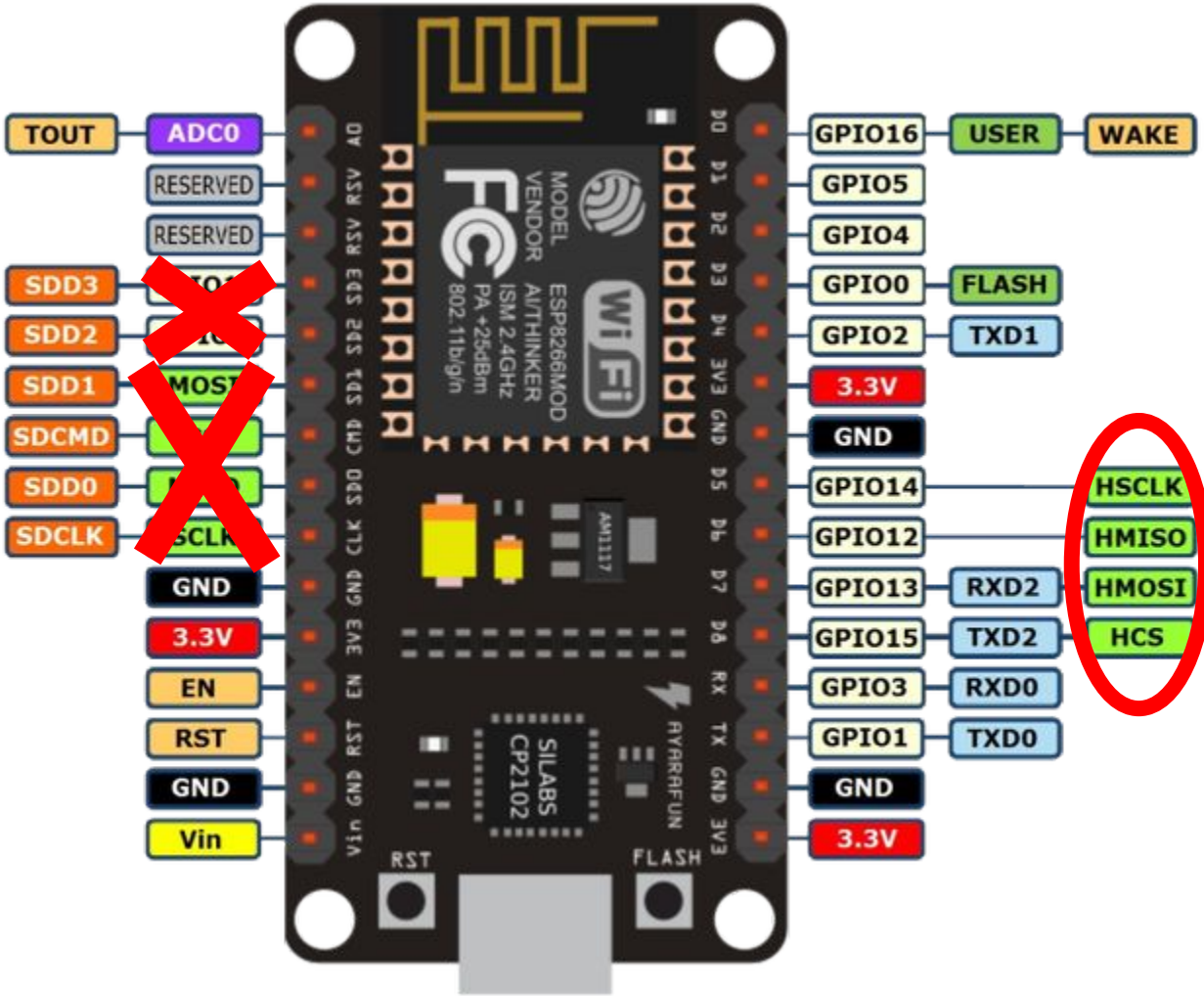
Board Overview

- Pretty board with 13 GPIO pins
- Hardware SPI pins that aren't even locked to GPIOs
- Project only needs 9 GPIO pins not counting the screen, so plenty of wiggle room.



Updated board overview

- Left side of board is a lie except for the analog pin
- Only 7 or less pins available after right side SPI, then 5 if you save serial
- 7 pins is not quite enough to fit in my devices



Pinout of Replacement (hopefully)

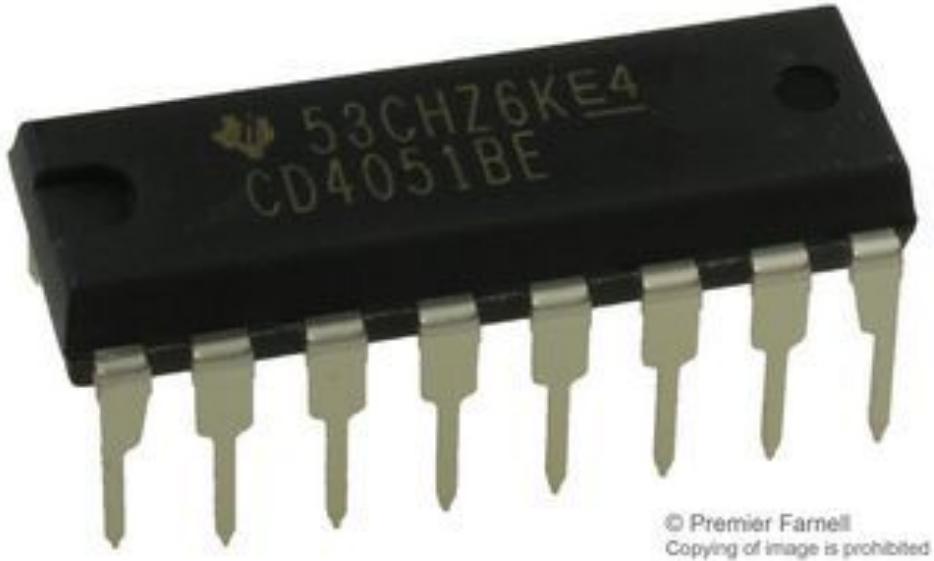
- 15 GPIO pins that are not used for anything critical
- Has same wireless possibilities as ESP8266
- Still small enough to fit in a remote

ESP32 Dev Board PINMAP

	3.3V	GND		
RESET	EN	GPIO23	VSPI MOSI	
	GPIO36	GPIO22		
	GPIO39	GPIO1	TX0	
	GPIO34	GPIO3	RX0	
	GPIO35	GPIO21		
	GPIO32	GND		
	GPIO33	GPIO19	VSPI MISO	
	GPIO25	GPIO18	VSPI SCK	
	GPIO26	GPIO5	VSPI SS	
	GPIO27	GPIO17		
HSPI SCK	GPIO14	GPIO16		
HSPI MISO	GPIO12	GPIO4		
	GND	GPIO0	BOOT	
HSPI MOSI	GPIO13	GPIO2		
FLASH D2	GPIO9	GPIO15	HSPI SS	
FLASH D3	GPIO10	GPIO8	FLASH D1	
FLASH CMD	GPIO11	GPIO7	FLASH D0	
	5V	GPIO6	FLASH SCK	

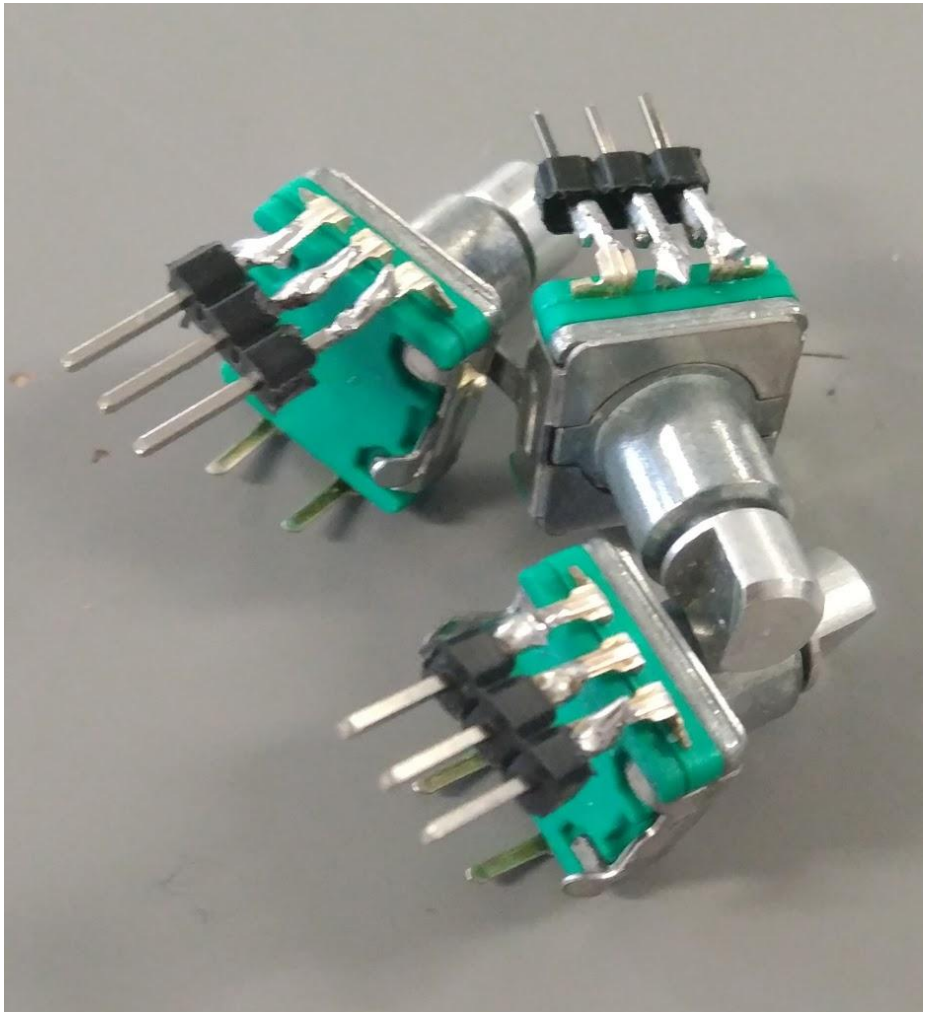
Other possibilities:

- Maybe multiplexing the encoders is possible. Maybe.
- Complete, un-user-friendly rework of the UI to save 2 pins
- Daughter board for the screen that drives it over serial cues



Other things that have happened:

- Attempted to Hello World the smaller encoders (Failed)
- Attempted to Hello World web communication to and from the device (Great Success)
- Attempted to Hello World buttons (Success)
- Worked on the program to get things started for the interface
- Made pretty logo concept, to be refined.



Pretty monochrome logo

- Looks kinda like a lightbulb
- Looks kinda like a house
- Artsy