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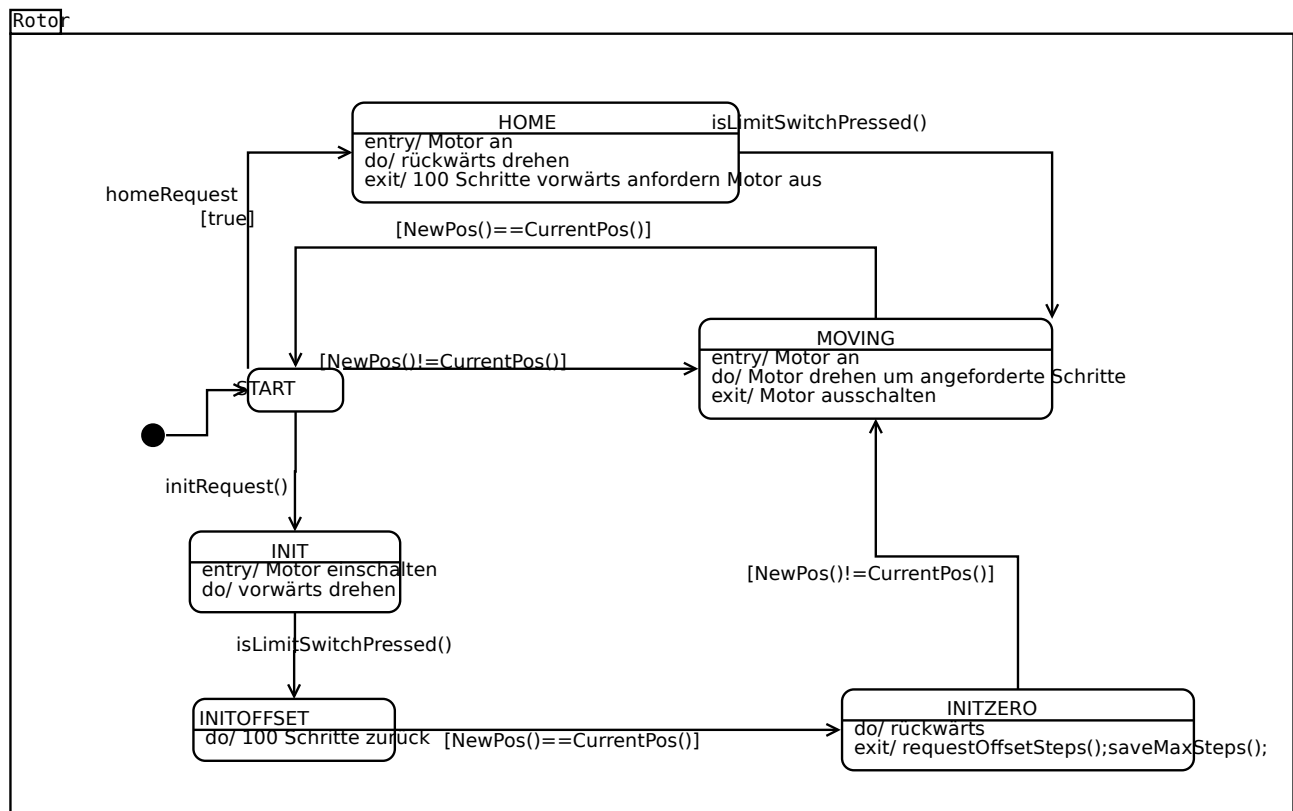
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# DK9MBS Ham Rotor 3D

## Firmware

## Konzeption

## Statemachine



# Technische Dokumentation

## Verfügbare GPIO Pin's

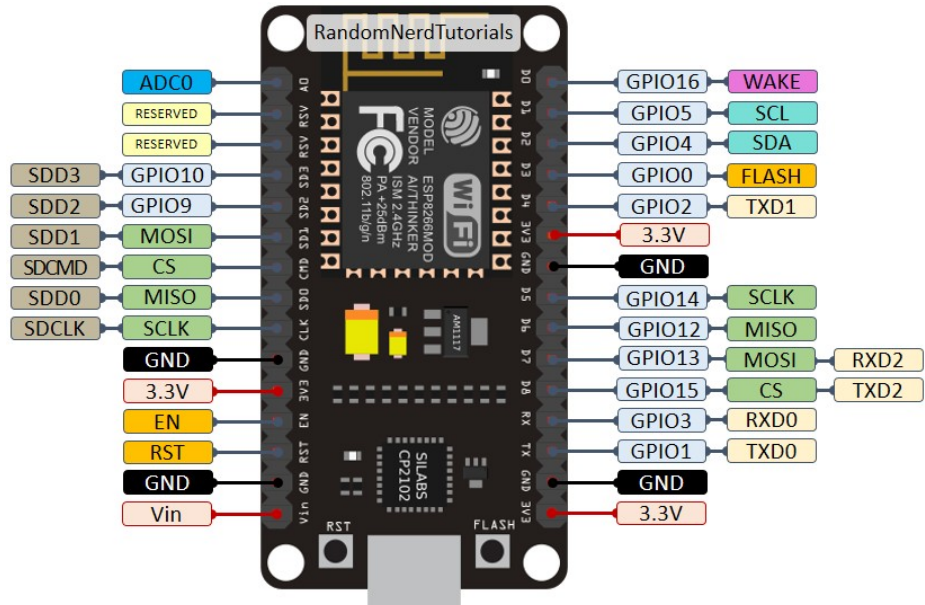
GPIO	Function	State	Einschränkungen
0	Boot mode select	3.3V	No Hi-Z
1	TX0	-	Not usable during Serial transmission
2	Boot mode select TX1	3.3V (boot only)	Don't connect to ground at boot time Sends debug data at boot time
3	RX0	-	Not usable during Serial transmission
4	SDA (I <sup>2</sup> C)	-	-
5	SCL (I <sup>2</sup> C)	-	-
6-11	Flash connection	x	Not usable, and not broken out
12	MISO (SPI)	-	-
13	MOSI (SPI)	-	-
14	SCK (SPI)	-	-
15	SS (SPI)	0V	Pull-up resistor not usable
16	Wake up from sleep	-	No pull-up resistor, but pull-down instead Should be connected to RST to wake up

<https://tttapa.github.io/ESP8266/Chap04%20-%20Microcontroller.html>

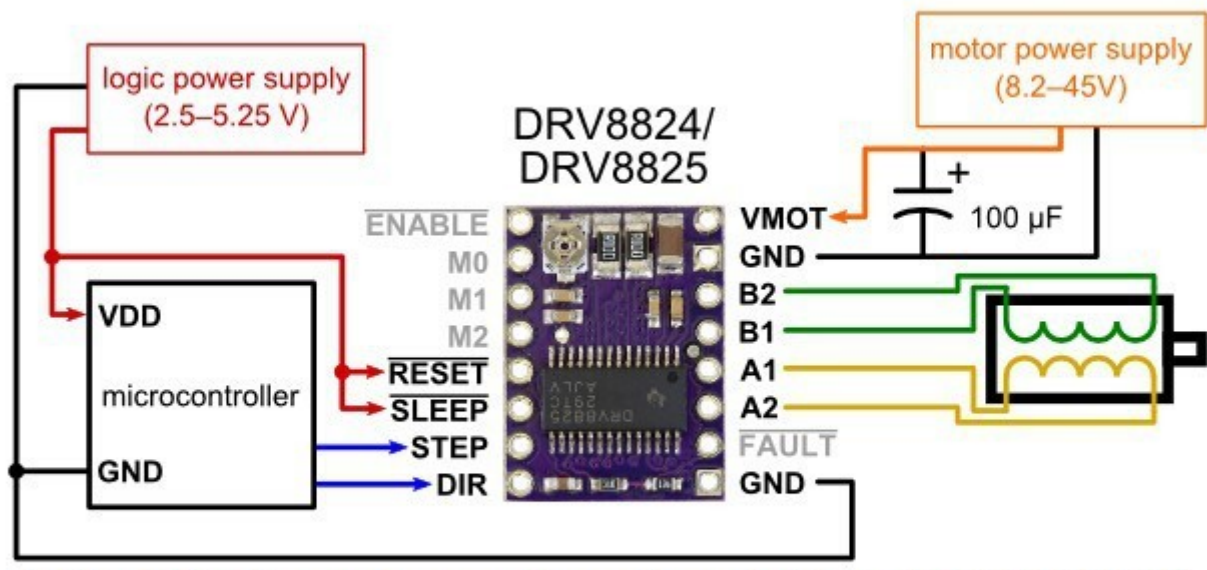
## Verwendung der ESP8266 Pin's

Pin	Verwendung	Bemerkung
12	8825 Step	
13	8825 Dir	
14	8825 enabled	
4	SW1	10K Pulldown
5	SW2	
2	Endschalter	10K Pulldown 10K Pulldown
0	LCD (SDA)	
16	LCD (SCL)	

## Pinbelegung NodeMCU mit ESP8266



## Pinbelegung DRV8825 Motor Treiber



M0	M1	M2	Schritt Auflösung	Anzahl Schritte für eine Umdrehung
0	0	0	1	200
1	0	0	1/2	400
0	1	0	1/4	800
1	1	0	1/8	1600
0	0	1	1/16	3200
1	0	1	1/32	6400

LCD Display

