

A
\$0.70 A4988 Red/green 35V 2A
\$1.50 DRV8825 purple 45V 2.5A @24v
\$1.80 TMC2208 white 1A 36V UART
\$3.00 TMC2209 black: 2.8A 29V UART
all 15x20mm 500mil spacing

Title: *Step Drive P3*

Part #: GDL-ACSTEPDRIVEP3-A

Revision: A

Date: 4/8/2025

Sheet 1 of 5

©2025 GHI Electronics, LLC - Michigan, USA



1

2

3

4

A

A

B

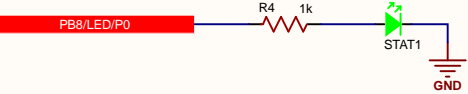
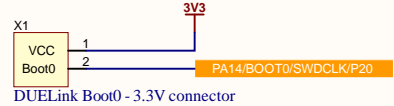
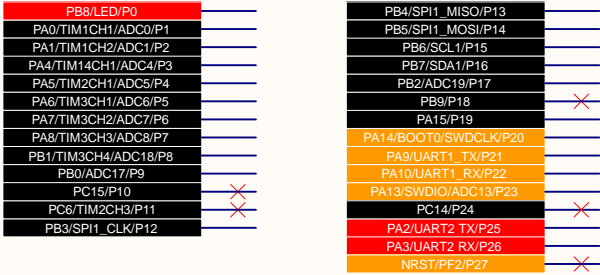
B

C

C

D

D



Fiducial 40 Mil



Fiducial 40 Mil



Fiducial 40 Mil



Fiducial 40 Mil



Fiducial 40 Mil



Fiducial 40 Mil

Title: <i>Misc</i>		
Part #: N/A		
Revision: A	Date: 4/8/2025	Sheet 2 of 5

©2025 GHI Electronics, LLC - Michigan, USA



1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---

Software Features:

ADC: P1, P2, P3, P4, P5, P6, P7, P8, P9, P17

Pulse feedback: Can be any pin but hardware need 100pF + 1Mohm

HW PWM: P1, P2, P3, P4, P5, P6, P7, P8, P11

- * P1, P2: TIM1
- * P3: TIM14
- * P4, P11: TIM2
- * P5, 6, 7, 8: TIM3

SW PWM: Any pin

SW UART: Pins 1 RX, 2 TX, 3 DBG

Wakeup Pins: P1, P3

Interrupts on: P1, P2, P3, P4, P5, P6, P7, P12,

Output compare: P2 (PA1)

Input capture: TBD

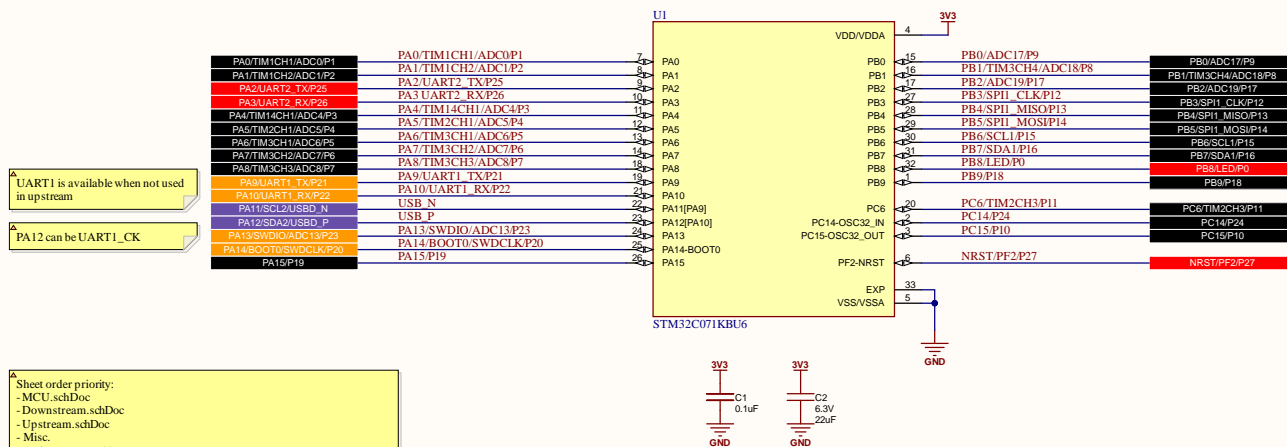
Neopixel: Any pin (blocking mode)

IR reciever: P1

```
//PB8      -P0->LED
//PA0      -P1->TIM1_CH1_ADC0
//PA1      -P2->TIM1_CH2_ADC1
//PA4      -P3->TIM14_CH1_ADC4
//PA5      -P4->TIM2_CH1_ADC5
//PA6      -P5->TIM3_CH1_ADC6
//PA7      -P6->TIM3_CH2_ADC7
//PA8      -P7->TIM3_CH3_ADC8
//PB1      -P8->TIM3_CH4_ADC18
//PB0      -P9->ADC17
//PC15     -P10
//PC6      -P11
//PB3      -P12->SPI1_CLK
//PB4      -P13->SPI1_MISO
//PB5      -P14->SPI1_MOSI
//PB6      -P15->I2C1_SCL
//PB7      -P16->I2C1_SDA

//PB2      -P17->ADC19
//PB9      -P18
//PA15     -P19
//PA14     -P20->SWCLK_BOOT0

//PA9      -P21->UART1_TX -Can be used when no Upstream
//PA10     -P22->UART1_TX -Can be used when no Upstream
//PA13     -P23->SWDIO_ADC13
//PF2      -P24->NRST -Reserved for emergency
```



- MCU.schDoc
- Downstream.schDoc
- Upstream.schDoc
- Misc.
- project_name.schDoc

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---



