

TU/e

 FELIX KIT



Feelix KIT

Please handle this kit with care.

The kit remains the property of TU/e.

For more information visit feelix.xyz.

Revision 2

May 2025



kit.feelix.xyz

MOTOR AND CONTROL

Brushless Gimbal Motor GB36-1	€ 40.90
FEELIX mini-driver board	€ 550.00
FEELINK power board	€ 335.00

POWER AND CABLES

Power Adapter 12V 3A	€ 13.00
USB-C - USB-A cable	€ 4.00

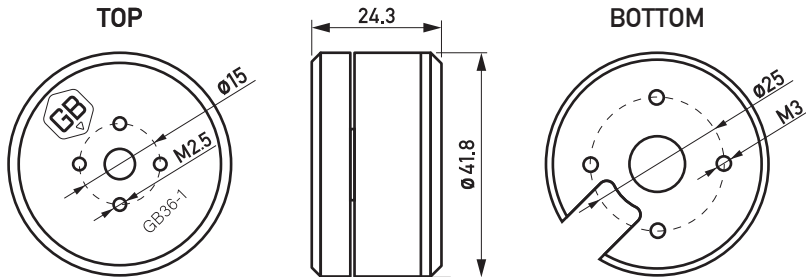
Vm connector JST to Jack	€ 1.65
Vm connector JST to JST	€ 1.30
I2C 4-pin connector JST to JST	€ 1.15
I2C 4-pin connector JST to headers	€ 1.15
SPI 6-pin connector	€ 3.05
SPI 8-pin connector	€ 4.00
Arduino +5/7 Vin connector	€ 2.29

OTHER

Assortment box	€ 9.99
Feelix KIT documentation (this)	

The contents of each kit may vary.
When returning the kit, ensure that all original components are included.
If any items are missing, please visit kit.feelix.xyz to order replacement parts before returning the kit.

Thank you!



WARNING:

- Max thread depth 4mm. Inserting bolts deeper will damage the coils of motor.
- Max torque: 0.72 Nm for M2.5 and 1.28 Nm for M3.
- Keep magnetic residue away from the motor.

Images are not drawn to scale. All dimensions are in millimeters (mm).

USB-C 2.0

+5V Max 1.5A IN

STATUS LED PB5

FAULT LED PB4

BOOT SWITCH RUN

BOOT SWITCH BOOT

RESET 7

Vm (NOT Fused)

GND

+12-20V Max 6A IN

RUN
BOOT

STM32F401RET

DRV8316C

V3.1

TOP VIEW

SPI

SPI2 C0PI

SPI2 PICO

SPI2 SCK

SPI2 CS

SPI2 +3.3V Max 100mA OUT

GND

+3.3V Max 100mA OUT

PB1 GPIO ADC A9 *

PB0 GPIO ADC A8 *

PC5 GPIO ADC A15 *

PC4 GPIO ADC A14 *

GND

GND

I2C

I2C1 SCL

I2C1 SDA

I2C1 +3.3V Max 100mA OUT

GND



3.3V

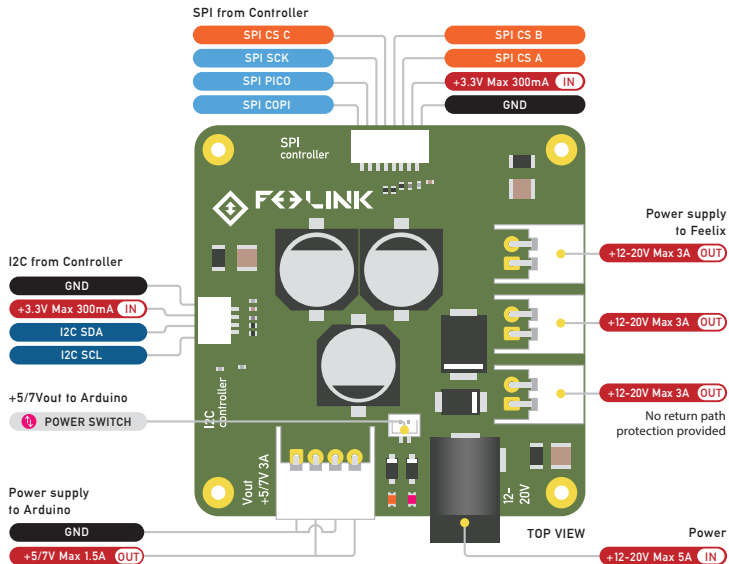
LOGIC ONLY

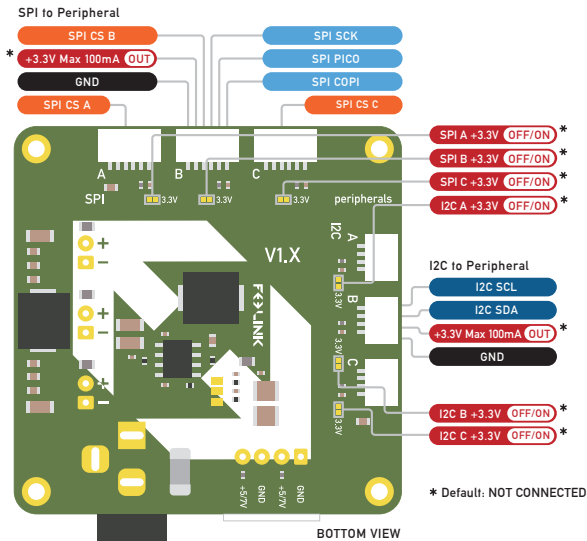
* 0-3V range / 12 BIT



3.3V

LOGIC ONLY





3.3V

LOGIC ONLY

IMPORTANT

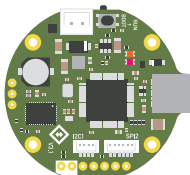
Do **not** connect I2C or SPI 3V3 output to Felix mini-driver boards.

The solder jumpers can be used for devices that do require 3V3.



3.3V

LOGIC ONLY



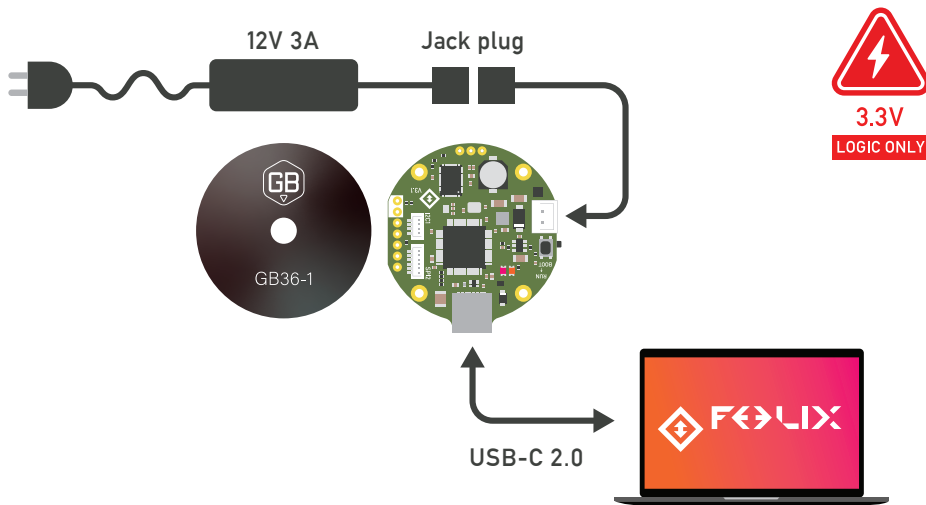
USB-C 2.0

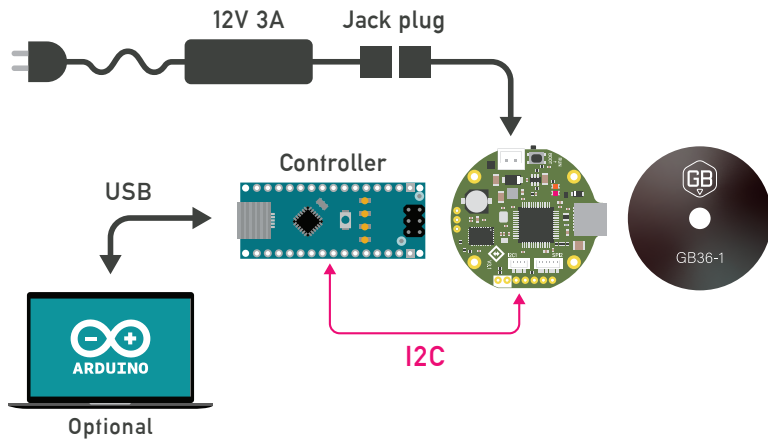
5V Max 1.5A

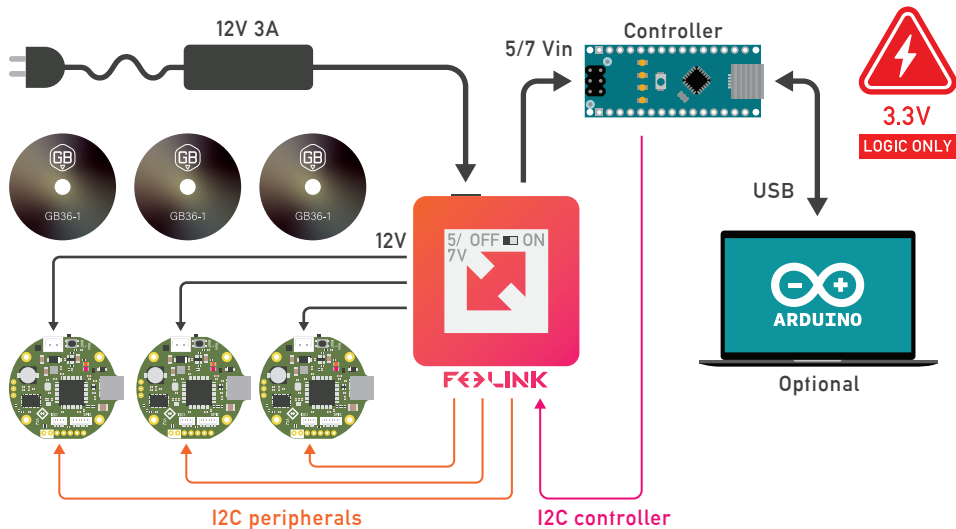


NOT RECOMMENDED

WARNING: USB power is insufficient to operate the motor.
Use this configuration for STM32 programming only.







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