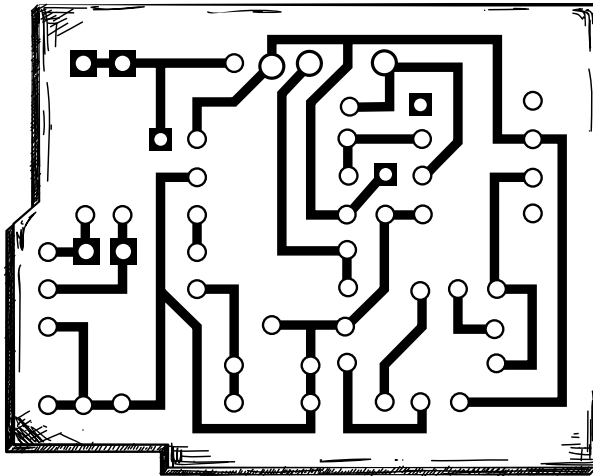


2

# Assembly of the Electronics



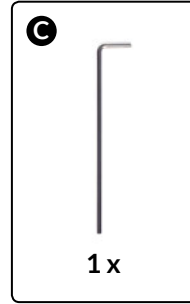
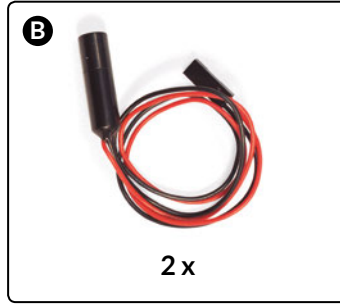
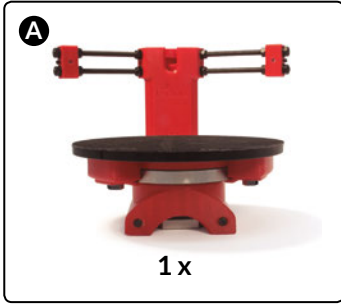
Discover and share everything you can do at  
[diwo.bq.com](http://diwo.bq.com)

# List of components for the electronics

- 2 x** Laser
- 1 x** Logitech® C270 camera
- 1 x** bq ZUM BT-328 controller board
- 1 x** bq ZUM SCAN power shield
- 1 x** Stepstick Drivers A4988 4 layers
- 2 x** Printed piece laser cable tray: 80 mm
- 1 x** Printed piece motor cable tray: 240 mm
- 1 x** Printed piece electronics cover
- 1 x** Micro-USB cable
- 1 x** Power supply 12 V 1.5 A
- 1 x** Methacrylate front pattern
- 1 x** Printed piece pattern support
- 1 x** Checkerboard pattern sticker
- 2 x** M3 x 10 mm black screw - DIN 912 Class 8.8
- 2 x** M3 black nut - DIN 934 Class 8

# 1

## Fitting the lasers



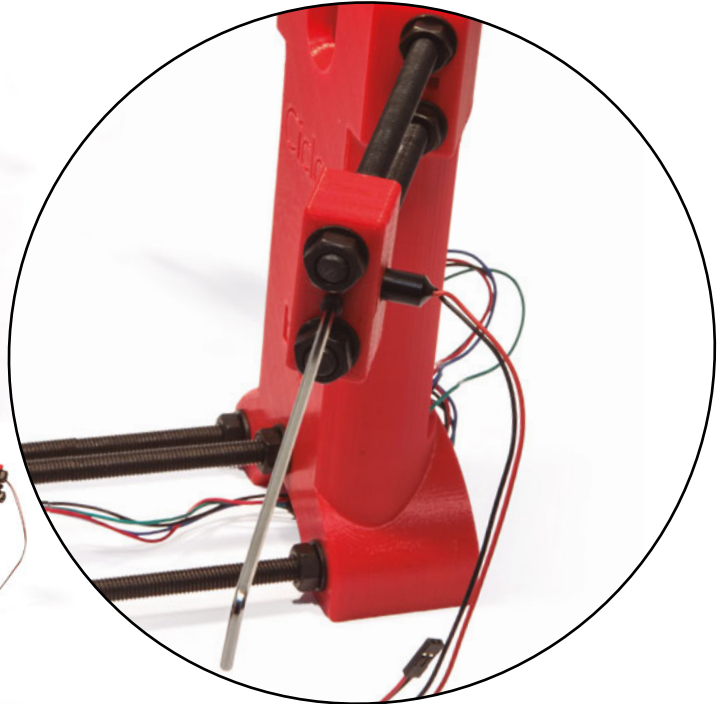
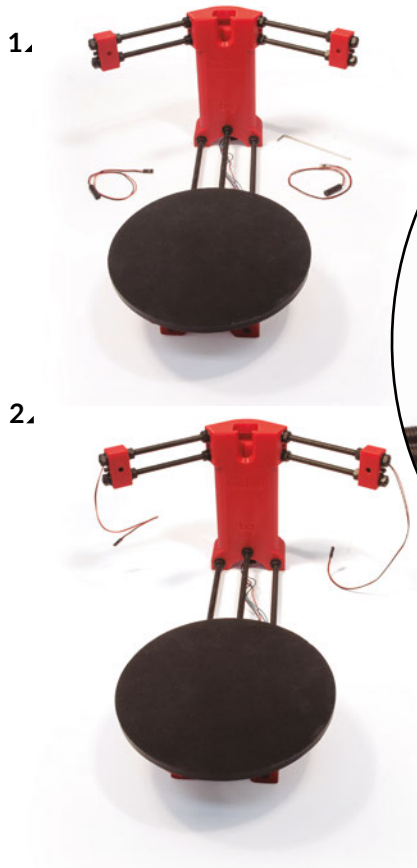
**A** Mounted structure

**B** Laser

**C** Allen key



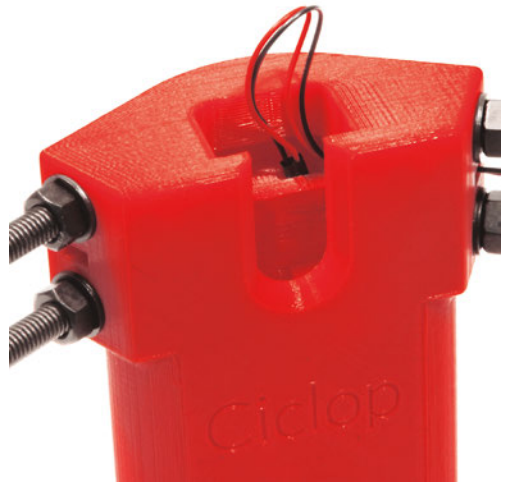
*Tighten the screws against the lasers, without applying too much pressure on them.*



3.



4.



5.

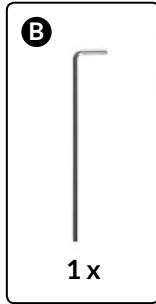
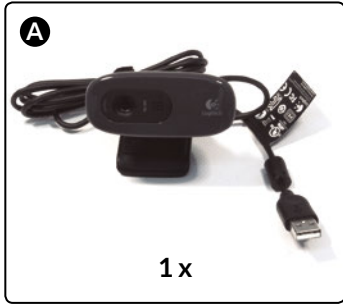


6.



# 2

## Preparing the camera



You will need a Phillips screwdriver (3).

1.



**A** Logitech® C270 camera

**B** Allen key

2.



3.



4.

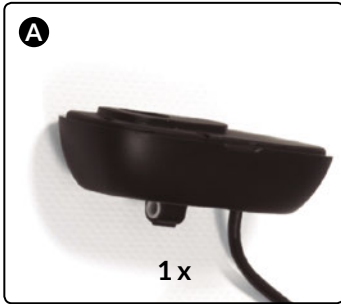


5.



# 3

## Fitting the camera



**A** Logitech® C270 camera (attachments removed)

**B** Ensemble from Step 1

1.



2.



3.



4.

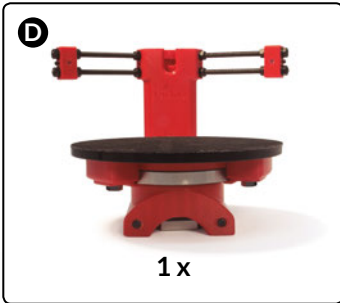
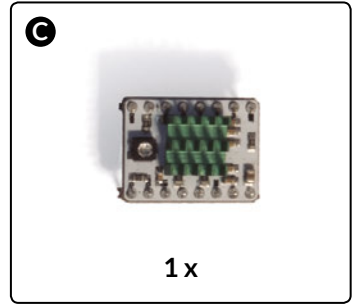
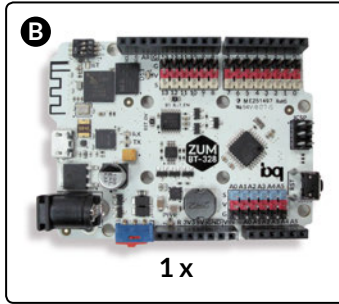
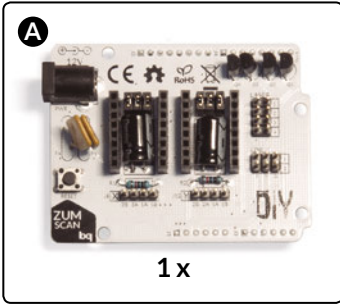


5.



# 4

## Fitting the electronics: bq ZUM BT-328 + ZUM SCAN

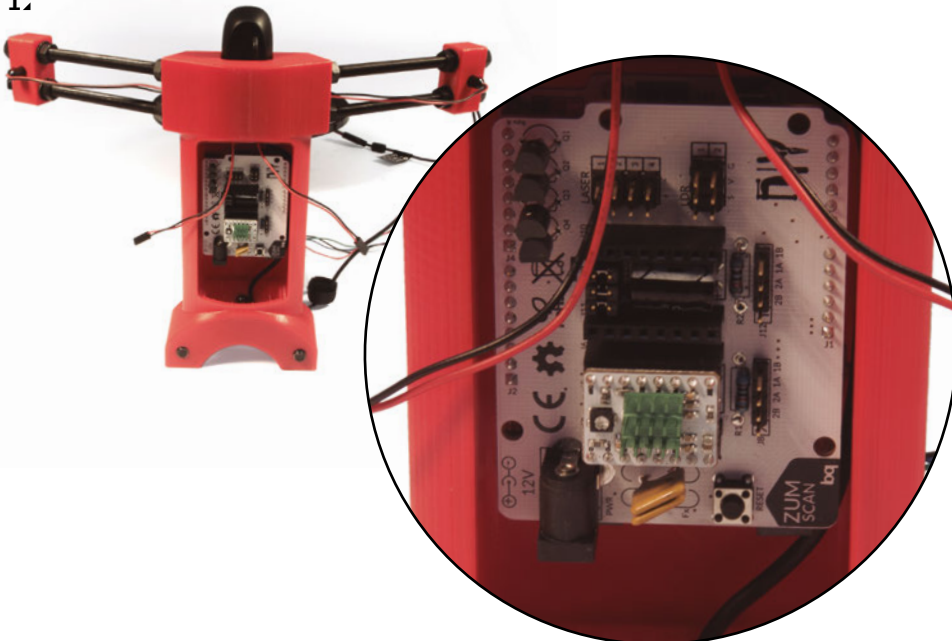


- A** bq ZUM SCAN power shield
- B** bq ZUM BT-328 controlled board
- C** Stepstick Drivers A4988 4 layers
- D** Ensemble from Step 3



*Components A, B and C are factory-assembled.*

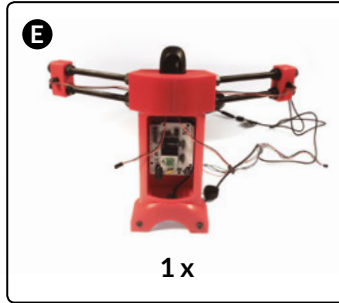
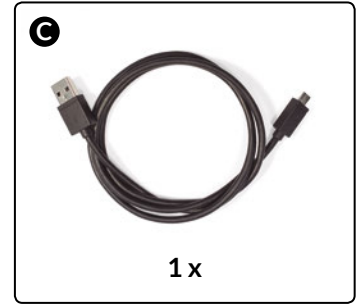
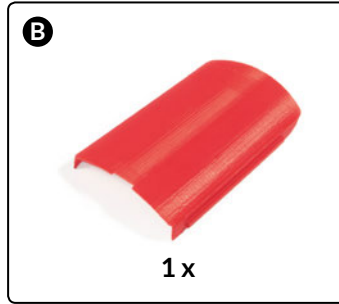
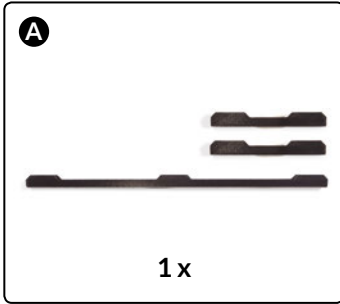
1.





# 5

## Connecting and routing of cables

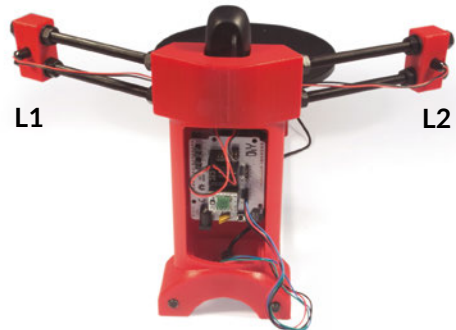
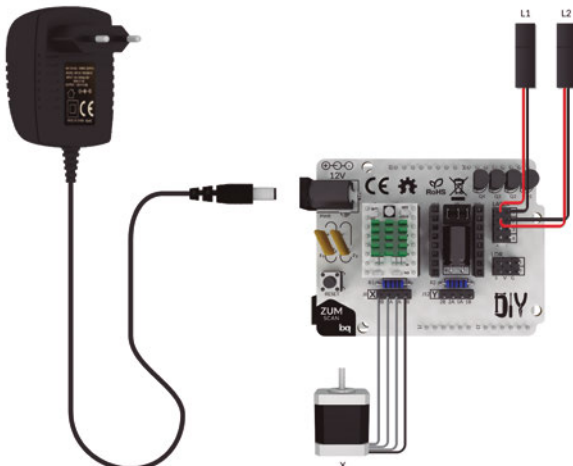


- A** Printed piece laser cable tray and motor cable tray
- B** Printed piece electronics cover
- C** Micro-USB cable
- D** Power supply 12 V 1.5 A
- E** Ensemble from Step 4



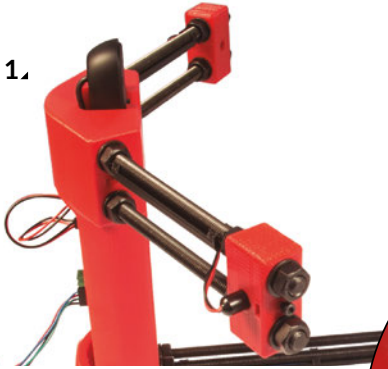
When connecting the motor connectors to the plate, pay attention to the direction of the black cable. The colour of the rest of the cables may vary.

## Connection diagram

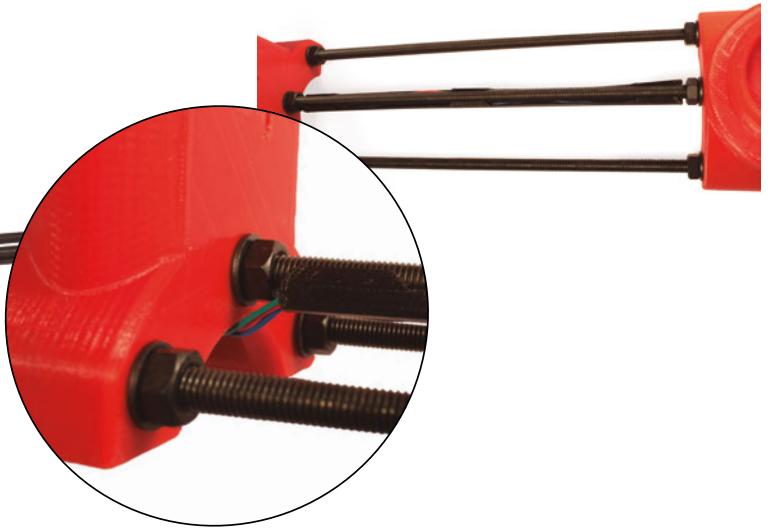


Connect the end of the micro-USB cable to the bq ZUM BT-328 controller board and the USB end to the computer.

1.



2.



3.



4.

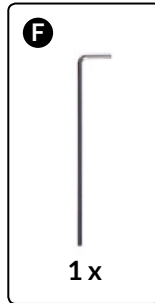
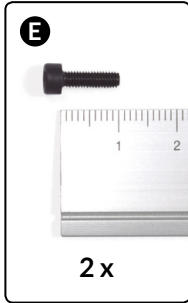
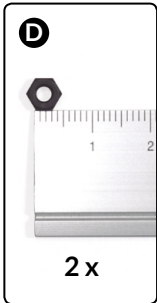
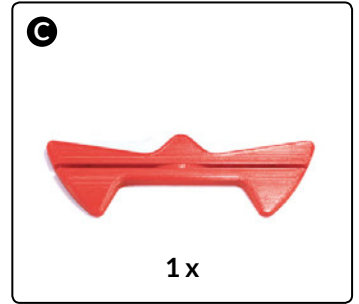
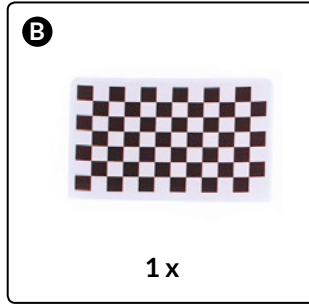
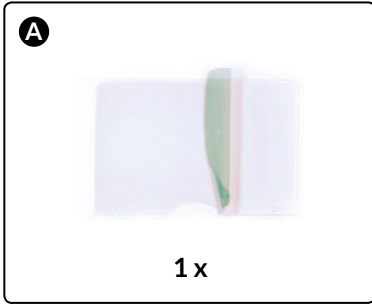


5.



# 6

## Assembly of the calibration pattern



- A** Methacrylate front pattern
- B** Checkerboard sticker
- C** Printed Piece pattern support
- D** M3 nut
- E** M3 x 10 mm screw
- F** Allen key

1.



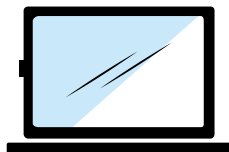
2.



**CAUTION:** the direction of the black squares is important (2).

Place only one of the checkered stickers onto the pattern. The other one is a spare.

3.



You have now finished assembling your Ciclop. Before you start to scan, you will need to install the software. Follow the installation guidelines and conditions recommended at:

[www.bq.com/ciclop](http://www.bq.com/ciclop)