FANOTEC
Nodal Ninja
MECHA

E1 Rotator +
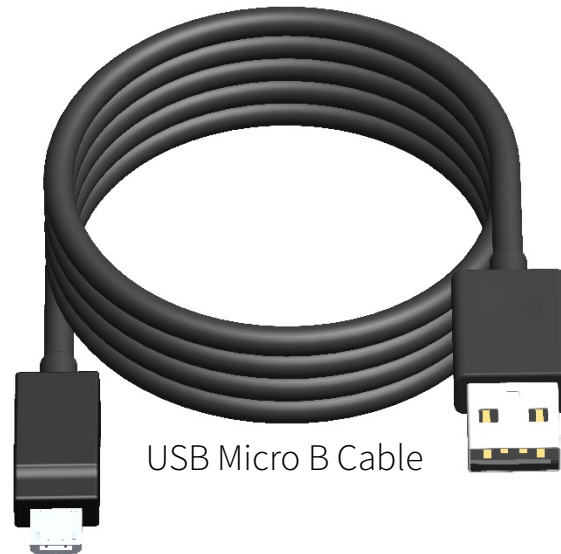Single Axis Controller C1

QUICK REFERENCE GUIDE

Version 0.2.3 (Oct 27th 2019)

P<small>ACKAGE</small> C<small>ONTENTS</small>

Mecha E1& C1

USB Micro B Cable

Shutter Cable

2.5 mm Hex Key

2.0 mm Hex Key

M3x5	M3x6	M3x5	M2.5x16	Springs x 2	3/8" to 1/4" adapter

BODY

1. Rotator Serial Number
2. C1-E1 Support Arm
3. Controller Serial Number
4. Single Axis Controller C1 (F9910)
5. Power / Status LED Indicator
6. Programmable Buttons
7. Power Button
8. Micro B USB Charging Port
9. Multi-Function AUX Port
10. Camera Trigger Port
11. Controller to Rotator Cable
12. M5 Sockets
13. Anti-Twist Sockets
14. 1/4"-20Socket
15. M4 Socket
16. Mecha E1 Rotator Module (F9900)
17. Friction Ring Tension Screw
18. Lower Rotator Friction Ring
19. Anti-Rotation Lock Button
20. 3/8"-16 Socket
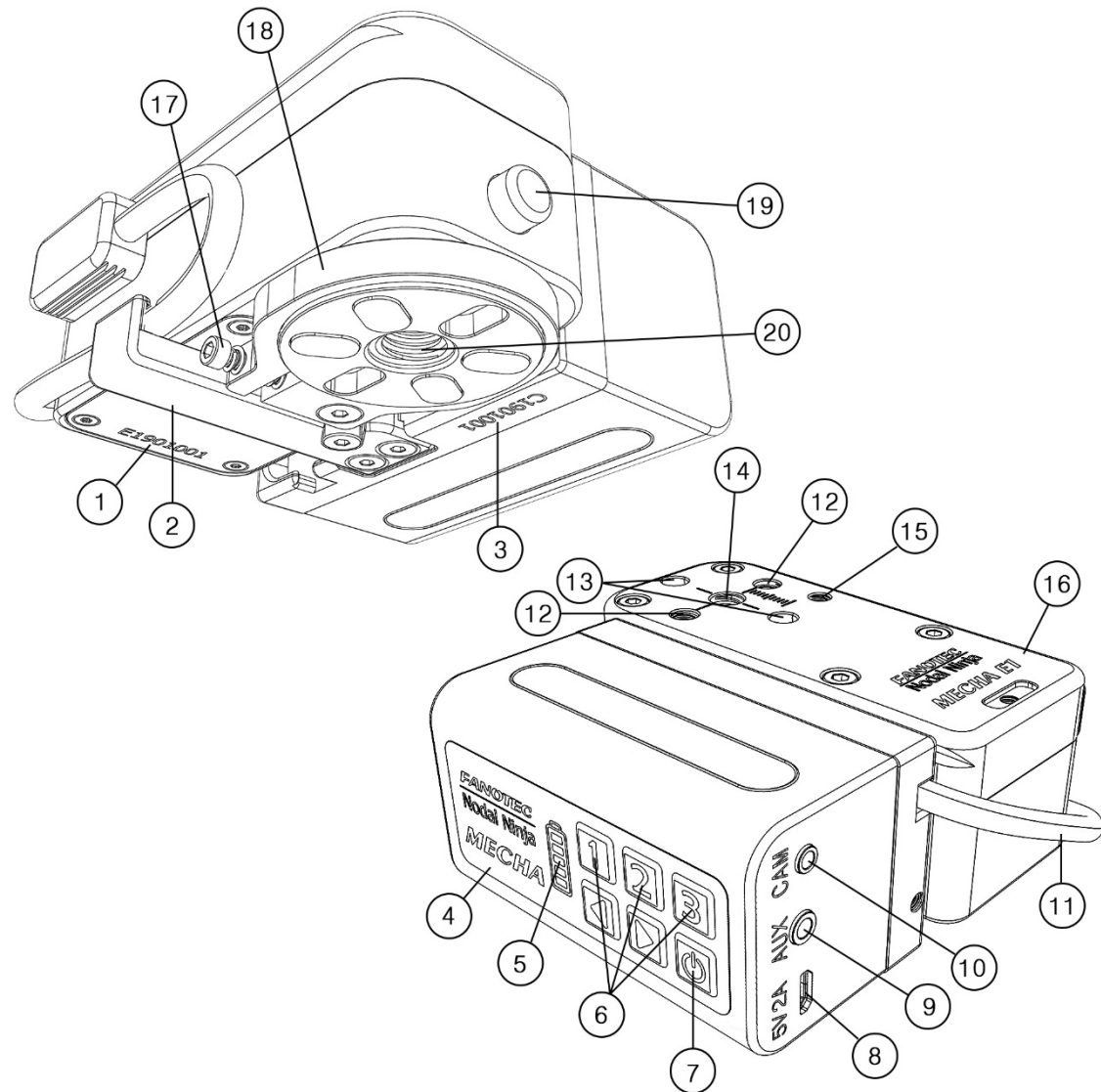
FEATURES

Mecha = Precision built with the highest quality components.

Use for consistent single row 360's (dual axis controllers coming soon).

Other uses include turntable, HDR bracketing, time-lapse video and later use with Fanotec Carbon Fiber Slide Rails and cables.

The rotators are modular and can be used with different controllers supporting 1 to 4 axis.

Mecha's features justify doing price comparisons against higher end units costing thousands of dollars.

Out the box Mecha is pre configured with 3 presets and ready to shoot.
Load 1 = executes 4 shots around.
Load 2 = executes 6 shots around.
Load 3 = executes 8 shots around.

The unit is able to operate with or without web browser controller.

Attach camera to Mecha by use of the sync cable.
Turn on, press #1 >(right arrow) , shooting sequence begins to the right begins with 4 shots around.
Turn on, press #2 < (left arrow) shooting sequence begins to the left begins with 6 shots around, etc.

Using the controller with Wi-Fi interface to a mobile/PC device browser offers access to over 50 tools for status displays, customizing shoots, and setting up presets as needed.

Some features include:

Assign a total number of shots around 2-360.
Rotate left or right.
Tool for testing No Parallax Point (NPP) in live view.
HDR bracketing of shots in a set (1-7, + custom)
Control Auto Focus time in milliseconds.

Set a delay for **W**ake up
Set a delay for **B**efore exposure
Set a delay for **E**xposure
Set a delay for **A**fter exposure

Rewind to initial position (useful to avoid cable wrap with some configurations)

On/off repeat number of sequences + length of delay between sequences.

Create up to 3 custom profiles which can be assigned to the 3 physical Buttons on controller, no need for an interface to use them.

Cancel operation smoothly.

Emergency stop.

Ability to take extra shots step by step for patching in a panorama.

Support for partial panoramas and repeated as desired.

Can operate both in AP or STA mode, allows the use in the studio or in the field as multiple stations some of which can be dedicated for use as a turntable, others for panoramas, and others for rail and video with upcoming accessories.

Turntable set with the desired speed (RPM) and smooth acceleration.

Visual feedback of the current shoot/position in set with time estimation until completion.

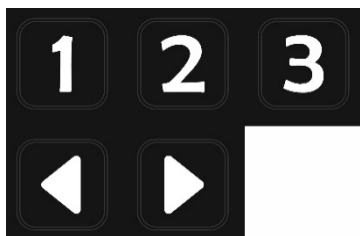Firmware update is via WiFi through the Internet.

May be used with a power bank for extended use.

Gesture support for fine-tuning of the initial position or for extra shots.

BASIC OPERATION

 Power Button: Hold down for approximately 5 seconds to turn on/off. While turned on press briefly for battery status.

 Presets buttons. Comes preprogrammed with:
#1=4 stops, #2=6 stops, #3=8 stops.
Arrows designate direction of rotation.
symbol ">" = right arrow, symbol "<" = left arrow
To execute a preset push buttons:
1< or 1> left or right.
2< or 2> left or right.
3< or 3> left or right.
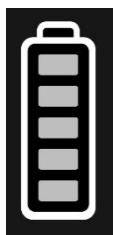
 Power / Status LED Indicator
The combinations of buttons will show the following:
121< Show Mecha ID.
123< Show MAC address.
323< Show Full IP address.
321< Show Last part of the IP address.
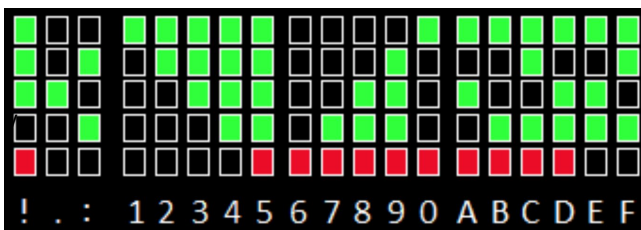
23< Disable/Enable motor. When the motor is disabled, the power LED will blink rarely, it blinks also in U.I.

32123< Update the firmware, if possible. Mecha needs to be connected to a WiFi with internet access before entering the code.It will show "..." if it cannot find any update, or "!!!" if Internet is not available for Mecha.

5V 2A = Micro B USB Charging Port. Plug in Micro BUSB cable to charge the Mecha. Use an appropriate power source. 5Volts 2Amp input.

AUX = Multi-function Auxiliary Port. Currently available function is shutter release confirmation by using signal from camera hot-shoe. Other functions will be available in the future.

CAM =Camera Port. Plug in a specific shutter cable for the camera in use. This allows for triggering the shutter automatically.

Make sure power is turned off before mounting on a tripod.

Anti-Rotation Lock Button. When mounting to a tripod depress the button allowing to tighten the Mecha. Once tightened make sure the button is not depressed.
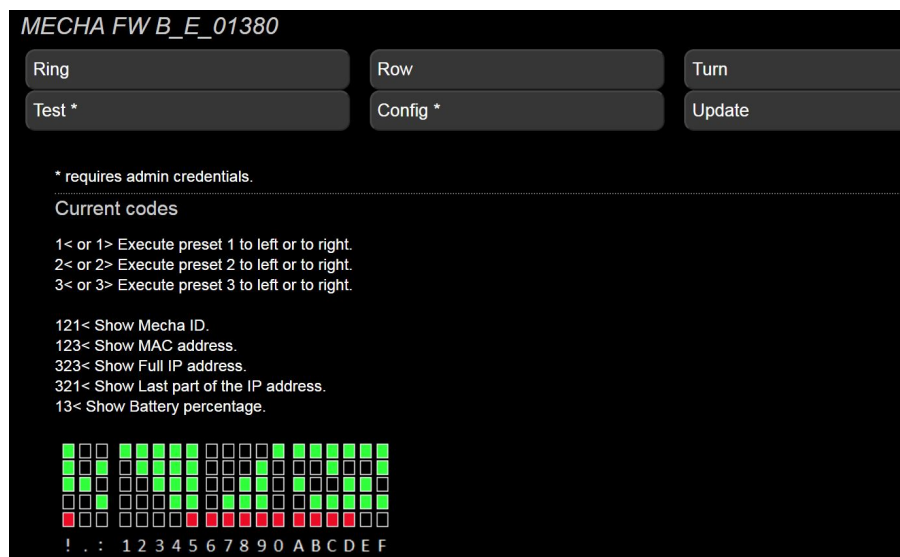
Web APP connection via WiFi:

To connect to the web app:

Make sure the unit is turned on.

On a mobile device/PC select MECHA-XXXXXX in the WiFi network list.

Enter the password 12345678.

On the browser URL enter 192.168.8.1

Sample page. (Ring page)

```
MECHA FW B_E_01380

Ring            Row            Turn
Test *          Config *       Update

* requires admin credentials.
Current codes

1< or 1> Execute preset 1 to left or to right.
2< or 2> Execute preset 2 to left or to right.
3< or 3> Execute preset 3 to left or to right.

121< Show Mecha ID.
123< Show MAC address.
323< Show Full IP address.
321< Show Last part of the IP address.
13< Show Battery percentage.

! . :  1 2 3 4 5 6 7 8 9 0 A B C D E F
```

Ring, Row and Turn buttons are the options for the type of images required.

Test and Config buttons requires admin credentials.

Update button is for firmware update. Follow the prompts to connect to a WiFi connection. When completed reboot the unit.
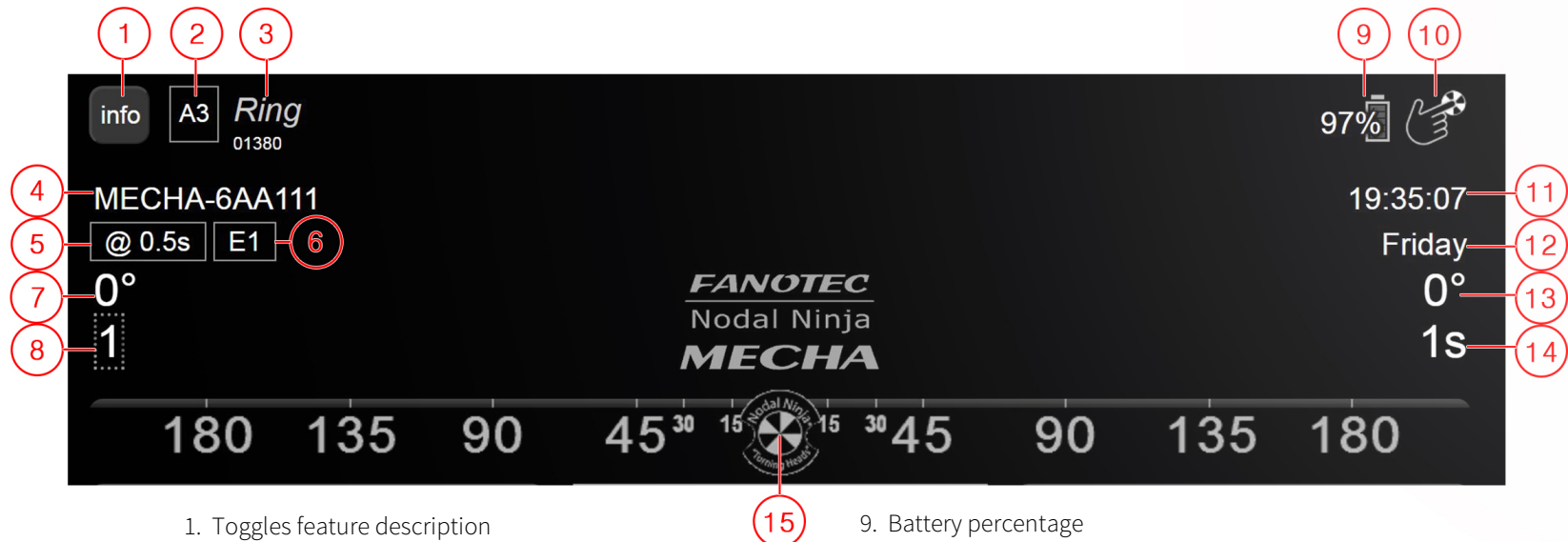
192.168.8.1 says

No update found.

OK

```
info   A3   Ring                                    38%
                01380

MECHA-6AA111                                    00:17:24
@ 0.5s   E1                                     2019.06.21
0°                      FANOTEC                          0°
                        Nodal Ninja
1                         MECHA                          0s

   180   135   90    45  30  15  15  30  45    90   135   180

LEFT                    8 Shots                  RIGHT

NPP Shots                        Live NPP

1    AF 100 ms   W:0 sec.  B:0 sec.  E:0 sec.  A:0 sec.  45 deg.   x 1   rewind

no repeat

1 x LEFT                SHOOT                    1 x RIGHT

Cancel                           STOP

Load          Load 1             Load 2          Load 3

Save          Save 1             Save 2          Save 3

Start as Ring                    Reboot

BEEP 5                           Always ON

Go To Row                        Shut down

Connect to Wi-Fi                 Wi-Fi OFF

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                     All rights reserved.
```

Page Navigation

info A3 *Ring* 01380

MECHA-6AA111

@ 0.5s E1

0°

1

97%

19:35:07
Friday
0°
1s

180 135 90 45³⁰ ¹⁵ ¹⁵ ³⁰45 90 135 180

1. Toggles feature description
2. Allows user to choose menu size from simple to advance
3. Switch between menus (Ring, Row, Turn, Home)
4. Mecha ID
5. Refresh rate of the motor/controller status
6. Rotator in use (E1, E2, P1)
7. Current angle position
8. Current status (shots remaining, position, repeat set)

9. Battery percentage
10. Toggles gesture mode. Click on screen and drag.
11. Current time
12. Current date, time remaining
13. Current rotation degree interval
14. Seconds remaining in current delay
15. Slider to manually rotate in degrees relative to its current position

Clicking on the **INFO** button will toggle description for all the controls.

MECHA E1 C1 v0.2.3
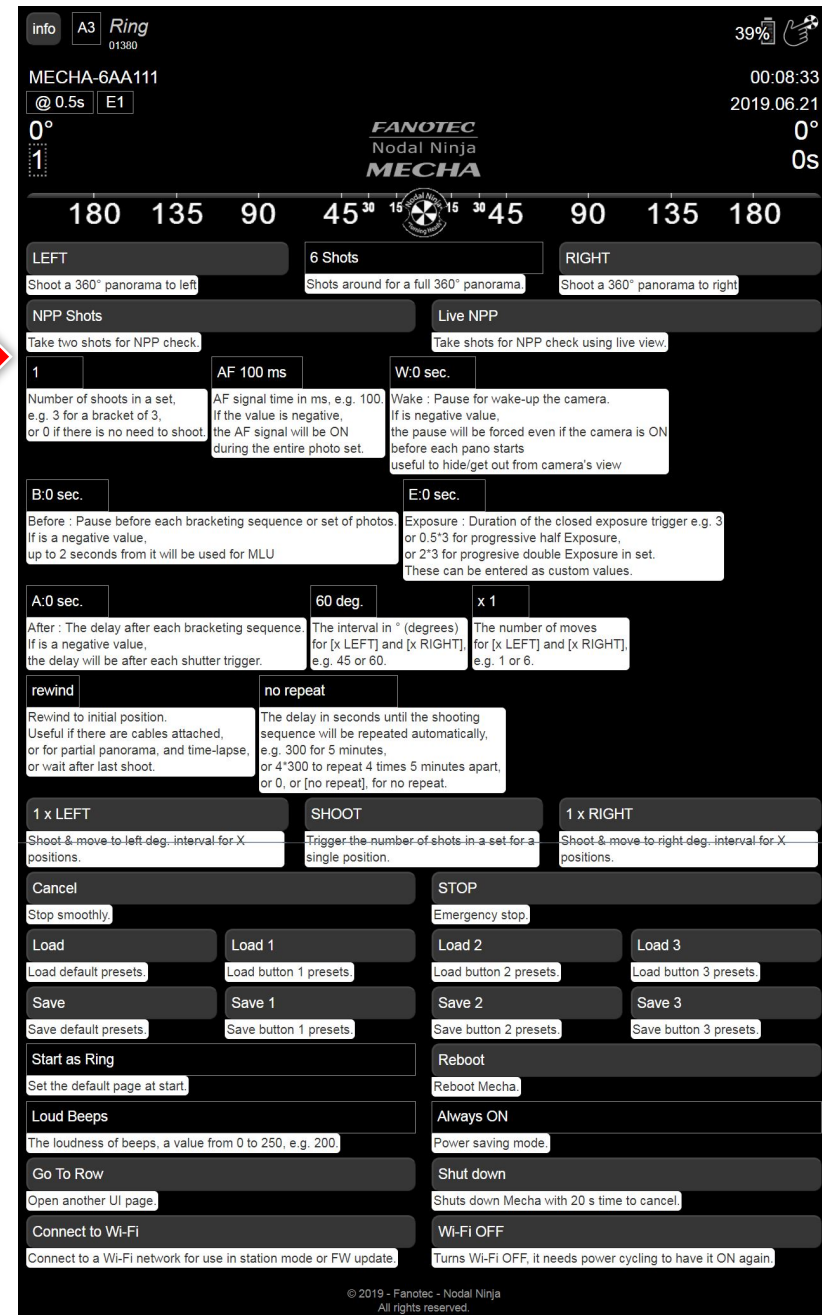
MORE INFO, LINKS & SPECS

Specifications:

NCR18650GA high capacity lithium-ion batteries, 7.2v, 3350mAh, 12Wh. (Always observe proper safety precautions when using products with lithium-ion batteries).

Total weight of Mecha Rotator E1 + Single Axis Controller C1 approx. 17.35 oz (492g).

Supports up to 3.3lbs (1.5 kg) vertical loading, including pano-head, and 1.0Nm turning torque (center of gravity is 8cm from pivot).

- Safety Precautions Mecha Lithium-ion batteries - **http://bit.ly/mecha-safety**

Mecha support safe links:

- Making HDR Pano and Time-lapse Using MECHA - **http://bit.ly/mecha-hdr-tl**
- Making HDR Pano and Time-lapse Using MECHA Mind Map - **http://bit.ly/mecha-hdr-tl-mind-map**
- Finding the No-Parallax-Point Using Live NPP - **http://bit.ly/mecha-live-npp**
- Remote Shutter Release Cable Compatibility List (compatible cameras) - **http://bit.ly/mecha-cables**
- Accessing the Web Control Interface of Mecha - **http://bit.ly/mecha-access**
- How to update Mecha Controller firmware - **http://bit.ly/mecha-firmware**
- Support Questions and assistance - **http://bit.ly/mecha-forum**

How we will assign versions for the Mecha E1 Rotator with Controller C1 QRG.

- v0.1 First draft released to get the user up and running with basic functionality.
- v0.1.1 / v0.1.2 / v0.1.3 etc. - Minor tweaks to text and images may occur which do not affect performance.
- v0.2 / v0.3 / v0.4 etc. - Changes or additional features added which may affect or enhance the actual operation. **(important update)**
- v1,0 The QRG has reached a level that we feel covers most of the basic functionality.
- v1.1.1 / v1.1.2 / v1.1.3 etc. - Minor tweaks to text and images may occur which do not affect performance.
- v1.1 / v1.2 / v1.3 etc. - Changes or additional features added which may affect or enhance the actual operation. **(important update)**
- v2 - Major update **(important)**

To view the latest revision of this Quick Reference Guide scan the QR Code or visit: **http://bit.ly/nn-manuals**

Developed and manufactured by Fanotec. Manufacturer of Nodal Ninja Branded Products.

https://nodalninja.com

Address: Flat 2, 4/F, Kar Wah Indl. Bldg. 8 Leung Yip Street Yuen Long, Hong Kong

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