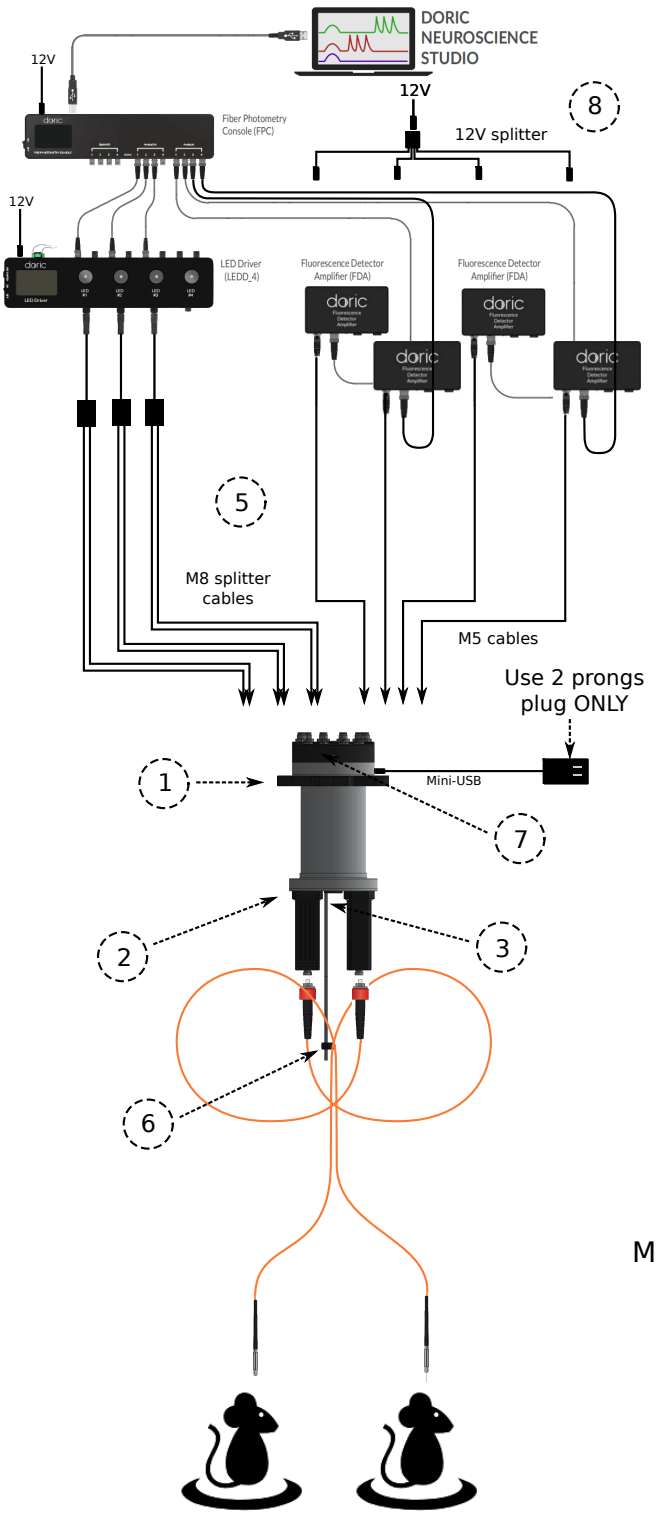
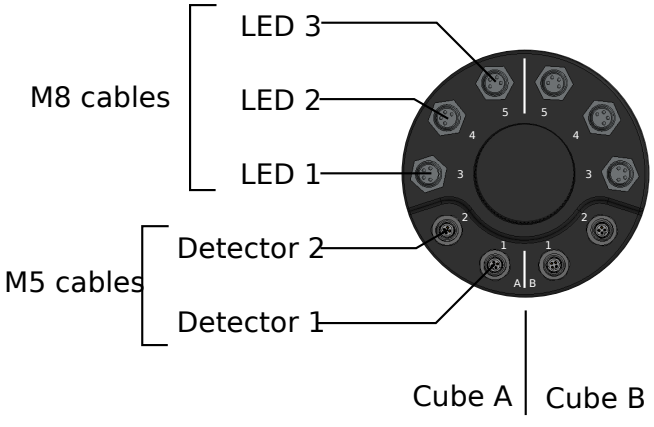
Getting Started

Rotary Fluorescence Mini Cube system - Two cubes configuration



1. Install the 2 part holder on the Rotary Joint (RJ).
2. Install both Rotary Fluorescence Mini Cubes (RFMC) with the 2 screws already on the RJ.
3. Screw the torque detection bracket on the torque sensor.
4. Install the RJ at the top of you cage.
5. Plug the M8, M5, BNC, USB & power cables:
   - The RJ top connection diagram is shown bellow
   - The number of M8 cables, M5 cables and amplifiers will vary depending on your RFMC configuration
   - Connect the M8 splitter cable to the same channel on each cubes. E.G. LED1 cube A & LED1 Cube B
6. Plug the patch cords in the RFMC and loop it in the torque detection bracket, as shown.
7. Power on the RJ by pressing the front button then adjust the fibers angle so that the RJ does not move when left untouched.
8. Download and install the Doric Neuroscience Studio software on the Doric website.
9. Configure your settings by following the base configuration section on *page 2.*



The detectors and LEDs numbering is indicated on each RFMC test sheet.

Basic configuration

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LED driver

- Low-power mode
- Current: 200mA
- External analog

Fluorescence Detector Amplifier

- DC mode
- 10X gain

For more details about the LED driver and Fluorescence Detector Amplifier, please check the user manual of each product on the download section of their respective page on the Doric website.

Fiber Photometry Console (FPC)

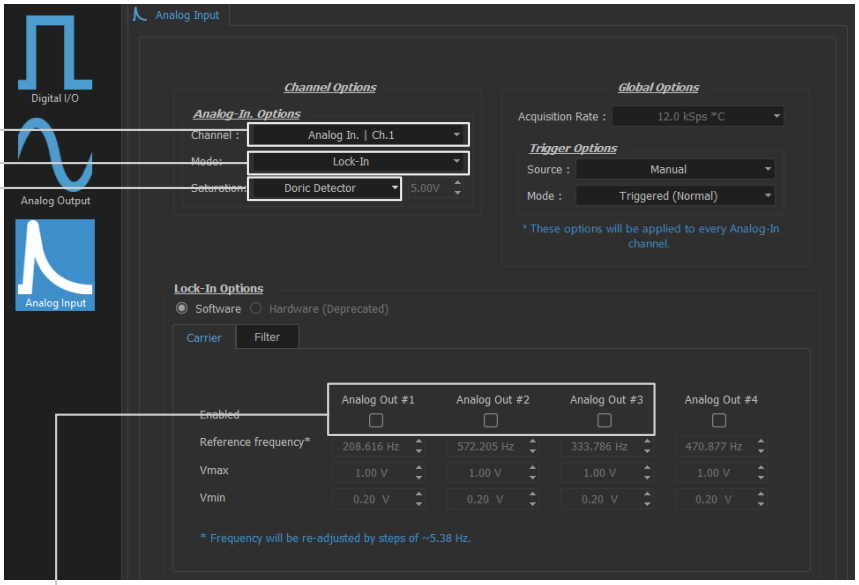
For a complete Lock-In set up guide, please check the Fiber Photometry Getting Started guide on the FPC page of the Doric website.

This section assume the following connections:

- LED 1 (cube A&B) -> LED driver ch 1 -> FPC Analog Out 1
- LED 2 (cube A&B) -> LED driver ch 2 -> FPC Analog Out 2
- LED 3 (cube A&B) -> LED driver ch 3 -> FPC Analog Out 3
- Detector 1 (cube A) -> FPC Analog In 1
- Detector 2 (cube A) -> FPC Analog In 2
- Detector 1 (cube B) -> FPC Analog In 3
- Detector 2 (cube B) -> FPC Analog In 4

In Doric Neuroscience Studio, add a new channel with the following parameters:

- Mode: Lock-in
- Saturation: Doric Detector
- Enable the carriers according to your configurations in the table bellow.



If you have a custom RMFC or you think your configuration should differ from the above, please contact us for the correct lock-in configuration

	RFMC type											
	1 LED & 1 detector			2 LED & 1 detector			3 LED & 2 detector			1 LED & 2 detector		
Carrier check boxes: Analog Out	1	2	3	1	2	3	1	2	3	1	2	3
Console channel: Analog In 1 (cube A)	X			X	X		X	X		X		
Console channel: Analog In 2 (cube A)	No detector 2			No detector 2					X	X		
Console channel: Analog In 3 (cube B)	X			X	X		X	X		X		
Console channel: Analog In 4 (cube B)	No detector 2			No detector 2					X	X		