Teleopt®
Wireless Optogenetic Stimulator

www.eicom-usa.com
High brightness LED and optic fibers are coupled to achieve mW order light power at the tip. Colors can be changed just by swapping the LED optic fiber component.

Remote controller accepts trigger signals from a stimulator, and sends the signals to the receiver. Synchronized light pulses are generated from the tip of the LED optic fiber (in pulse mode).

Receiver can be charged and re-used repeatedly, by a dedicated charger. Receiver has two types, pulse and continuous, each for high frequency and continuous stimulation. The remote controller is compatible for both receivers, by switching the mode switch. Pulse receiver flashes at the same timing with trigger pulses, whereas continuous receiver alternates on and off upon a new pulse.

Some opsins are activated by blue light and inactivated by yellow light. Together with the two channel receiver and two color LED optic fibers, you can stimulate by two different colors at the same position. The remote controller accepts two independent triggers.

### Receivers

- **Teleopto Receiver 1 g/Pulse**
  - E01.010.00
  - size: 13 x 18 x 7 mm
  - weight (approx.): 1.3 g

- **Teleopto Receiver 1 g/Continuous**
  - E01.011.00
  - size: 13 x 18 x 7 mm
  - weight (approx.): 1.3 g

- **Teleopto Receiver 2 g/Pulse**
  - E01.020.00
  - size: 16 x 23 x 7 mm
  - weight (approx.): 2.2 g

- **Teleopto Receiver 2 g/Continuous**
  - E01.021.00
  - size: 16 x 23 x 7 mm
  - weight (approx.): 2.2 g

- **Teleopto Receiver 3 g/Pulse**
  - E01.030.00
  - size: 17 x 24 x 8 mm
  - weight (approx.): 3.3 g

- **Teleopto Receiver 3 g/Continuous**
  - E01.031.00
  - size: 17 x 24 x 8 mm
  - weight (approx.): 3.3 g

### LED Optic fibers

- **Single optic fiber**
  - Specify color, length, and diameter.

- **LED Probe**
  - LED without optic fiber for brain surface stimulation.
  - Please specify color.

- **Two colors Single LED optic fiber**
  - Two 250 µm fibers are bundled into a single optic fiber.
  - Please specify two colors and length.

- **Bilateral LED optic fiber**
  - Please specify color, length, fiber diameter, and internal distance between optic fibers

### Accessories

- **Teleopto Charger**
  - E00.130.00
  - Additional chargers would be useful if you use several receivers.

- **Infrared Emitter**
  - E00.110.00
  - E00.120.00 (Clip type)
  - E00.140.00
  - E.00.150.00

- **Stereotaxic Adapter**
  - E00.140.00
  - For use with a stereotaxic for insertion ø1.3 mm.

- **Dummy Receiver**
  - E.00.150.00
  - For habitation.
**Stimulator for Optogenetics**

**E00.160.00**

STO mk-II is a pulse generator developed for optogenetics. By connecting STO mk-II to TRG port on the Teleopto Remote Controller via a trigger cable, you can control the timing of light stimulation by TTL pulses. Pulses are defined by the parameters illustrated below.


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**Light Power Meter**

**E00.170.00**

In optogenetics, it is important to measure the light power at the tip of the optic fiber, and the LPM-100 covers three colors, blue, green and yellow which are commonly used in optogenetics. Easy to use, hand-held and battery-powered.


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**6 Channel Hub**

**E00.125.00**

By connecting the TeleHub6 to the EXT port on the Teleopto Remote Controller, you can use up to 6 infrared emitters at the same time so that you increase the throughput of your experiment. This device is also useful if you use a maze with many branches or high walls which block infrared signal and prevent a good transmission. By putting several infrared emitters at several positions, it ensures more stable light stimulation.

Note: All infrared emitters send a signal at the same time.