

Materials List for:

# A Method for High Fidelity Optogenetic Control of Individual Pyramidal Neurons *In vivo*

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URL: <https://www.jove.com/video/50291>

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## Materials

Name	Company	Catalog Number	Comments
Syringe	Hamilton	7653-01	10 µl
Removable Needle	Hamilton	7803-03	31 gauge, beveled tip
Microinjector Pump	World Precision Instruments	UMP3	
Pump Controller	World Precision Instruments	SYS-MICRO4	
Silicone Oil	Alfa Aesar	A12728	
Laser Protective Eyewear	Kentek	KMT-4501	
Multimode Optical Fiber	Thorlabs	BFL37-200	200 µm diameter core, 0.37 NA
Fiber Stripping Tool	Thorlabs	T12S21	for 200 µm diameter core multimode fiber
Optical Power Meter	Lumiphy LLC	<a href="http://www.lumiphy.com">www.lumiphy.com</a>	
Photodetector	Newport	818-SL/DB	
Blue Laser (445-473 nm, 100-200 mW)	Lumiphy LLC	<a href="http://www.lumiphy.com">www.lumiphy.com</a>	coupled to a 200 µm multimode fiber with FC/PC adapter
Green Laser (532 nm, 100-200 mW)	Lumiphy LLC	<a href="http://www.lumiphy.com">www.lumiphy.com</a>	coupled to a 200 µm multimode fiber with FC/PC adapter
Tungsten/Fiber Optrode	Lumiphy LLC	<a href="http://www.lumiphy.com">www.lumiphy.com</a>	Lumitrode
Glass Capillary Tube	Fisher Scientific	22-362-566	
Hydraulic Micromanipulator	Narishige	MO-22	
Amplifier	Kation Scientific	ExAmp-20K	
Data Acquisition Device	National Instruments	NI USB-6009	
Rodent Head Restraint for Recording	Lumiphy LLC	<a href="http://www.lumiphy.com">www.lumiphy.com</a>	
Small Animal Stereotaxic Unit	David Kopf Instruments	Model 963	