

Materials List for:

Tracking *Drosophila* Larval Behavior in Response to Optogenetic Stimulation of Olfactory Neurons

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URL: <https://www.jove.com/video/57353>

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Materials

Name	Company	Catalog Number	Comments
Video camera to capture larval movement			
CCD Camera	Edmund Optics	106215	
M52 to M55 Filter Thread Adapter	Edmund Optics	59-446	
2" Square Threaded Filter Holder for Imaging Lenses	Edmund Optics	59-445	
RG-715, 2" Sq. Longpass Filter	Edmund Optics	46-066	
Electronics for optogenetic setup			
Raspberry Pi 2B	RASPBERRY-PI.org	RPI2-MODB-V1.2	
3 Channel programmable power supply	newegg.com	9SIA3C62037092	
8 Channel optocoupler relay	amazon.com	6454319	
630nm Quad-row LED strip lights	environmentallights.com	red3528-450-reel	
850nm LED strips	environmentallights.com	wp-4000K-CC5050-60x2-kit	
Software			
Matlab	Mathworks Inc.		
Ubuntu MATE v16.04	Nubuntu	https://github.com/yslo/nubuntu	
Other items			
Plexiglass black acrylic	Home Depot	MC1184848bl	
Fly food and other reagents			
Nutrify fly food	Genesee Scientific	66-112	
Agarose powder	Genesee Scientific	20-102	
22cm X 22cm square petri-dish	VWR Inc.	25382-327	
DMSO	Sigma-Aldrich	D2650	
Sucrose	Sigma-Aldrich	84097	
All trans-retinal	Sigma-Aldrich	R2500	
Flies			
<i>UAS-IVS-CsChrimson</i>	Bloomington Drosophila Stock Center	55134	
<i>Orco-Gal4</i>	Bloomington Drosophila Stock Center	26818	
<i>Or42a-Gal4</i>	Bloomington Drosophila Stock Center	9970	

<i>Or7a-Gal4</i>	Bloomington Drosophila Stock Center	23907	
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