

Materials List for:

# Olfactory Behaviors Assayed by Computer Tracking Of *Drosophila* in a Four-quadrant Olfactometer

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## Materials

Name	Company	Catalog Number	Comments
<b>Air delivery system</b>			<b>(Quantity needed)</b>
<b>Tubing and connectors</b>			
Thermoplastic NPT(F) Manifolds	Cole-Parmer, IL, USA	R-31522-31	1
Hex reducing nipple (1/4MNPT->1/8MNPT)	McMaster-Carr, IL, USA	5232T314	1
Tubing (ID:1/8)	McMaster-Carr, IL, USA	5108K43	50 Ft
Tubing (ID:1/16)	McMaster-Carr, IL, USA	52355K41	100 Ft
Barbed tube fittings	McMaster-Carr, IL, USA	5117K71	1 pack
Push-to-connect tube fittings	McMaster-Carr, IL, USA	5779K102	4
Barbed Tube Fittings (1/4MNPT->1/8BF)	McMaster-Carr, IL, USA	5463K439	1 pack (10)
Barbed Tube Fittings (1/8MNPT->1/8BF)	McMaster-Carr, IL, USA	5463K438	2 pack (10)
Barbed Tube Fittings (1/8MNPT->1/16BF)	McMaster-Carr, IL, USA	5463K4	2 pack (10)
Barbed Tube Fittings (1/4MNPT->1/4BF)	McMaster-Carr, IL, USA	5670K84	1
Hex head plug	McMaster-Carr, IL, USA	48335K152	1
<b>Air pressure regulator, air filter and flowmeters</b>			<b>(Quantity needed)</b>
Laboratory gas drying unit	W A HAMMOND DRIERITE CO LTD, OH, USA	Model: L68-NP-303; stock #26840	1
Multitube frames for 150 mm flowtubes	Cole-Parmer, IL, USA	R03215-30	1
Multitube frames for 150 mm flowtubes	Cole-Parmer, IL, USA	R03215-76	1
150 mm flowtubes	Cole-Parmer, IL, USA	R-03217-15	9
Valve Cartridge	Cole-Parmer, IL, USA	R-03218-72	9
Precision Air regulator	McMaster-Carr, IL, USA	6162K13	1
Solenoid valves	Automate Scientific, Berkeley, CA	02-10i	4
Solenoid valve controller	ValveLink 8.2, Automate Scientific, Berkeley, CA	01-18	1
Electronic flow meter	Honeywell	AWM3100V	1
DAQ (NI USB-6009, National Instruments) and a	National Instruments	NI USB-6009	1
Power supply	Extech Instruments	382200	1
Odor chambers			

Polypropylene Wide Mouth jar 2 oz; 60 ml	Nalgene	562118-0002	At least 5 are required per experiment, but a separate chamber is required for each dilution of each odorant. Available at Container Store, part #635114)
Glass odor chamber, 0.25 oz	Sunburst Bottle	LB4B	At least 5 are required per experiment
"In" valve for odor chamber	Smart Products, Inc., CA, USA	214224PB-0011S000-4074	1 of these parts is used per odor chamber but they need to be replaced frequently
"Out" valve for odor chamber	Smart Products, Inc., CA, USA	224214PB-0011S000-4074	1 of these parts is used per odor chamber but they need to be replaced frequently
O ring	RT Dygert International, MN, USA	AS568-029 Buna-N O-R	1 pack (100)
<b>Fly arena, camera and behavior boxes</b>			<b>(Quantity needed)</b>
Behavior and camera box material	Interstate plastics, CA, USA	ABS black extruded ( <a href="https://www.interstateplastics.com/Abs-Black-Extruded-Sheet-ABSBE~~ST.php">https://www.interstateplastics.com/Abs-Black-Extruded-Sheet-ABSBE~~ST.php</a> )	1803 sq inch
Teflon for fly arena and odor chamber inserts, 3/8" thick, 12" x 12"	McMaster-Carr, IL, USA	8545K27	1
Glass plates, 1/8" Thick, 9" x 9"	McMaster-Carr, IL, USA	8476K191	2
Dual action thermoelectric controller	WATronix Inc, CA, USA	DA12V-K-0	1
IR LED array	Advanced Illumination, Rochester, VT, USA	AL4554-88024, PS24-TL	2 LED arrays and one power supply
Air conditioner Unit	Melcor Store	MAA280T-12	1
<b>Imaging system</b>			<b>(Quantity needed)</b>
Cosmicar/Pentax C21211TH (12.5 mm F/1.4) C-mount Lens	B AND H PHOTO AND ELECTRONICS CORP, NY, USA	PEC21211 KP	1
CCXC-12P05N Interconnect Cable	B AND H PHOTO AND ELECTRONICS CORP, NY, USA	SOCCXC12P05N	1
DC-700 Camera Adapter	B AND H PHOTO AND ELECTRONICS CORP, NY, USA	SODC700	1
B+W 40,5 093 IR filter	B AND H PHOTO AND ELECTRONICS CORP, NY, USA	65-072442	1
TIFFEN 40.5 mm Circular polarizer	Amazon		1
IR Videocamera	Industrial Vision Source, FL, USA	Sony XC-EI50 (SY-XC-E150)	1
USB video converter	The Imagingsource, NC, USA	DFG/USB2-It	1
iFlySpy2 (fly tracking software)	Julian Brown, Stanford, California: <a href="mailto:julianrbrown@gmail.com">julianrbrown@gmail.com</a>	iFlySpy2	1
IC Capture 2.2 software	The Imagingsource, NC, USA ( <a href="http://www.theimagingsource.com/en_US/products/software/icapture/">http://www.theimagingsource.com/en_US/products/software/icapture/</a> )		
<b>Miscellaneous</b>			<b>(Quantity needed)</b>
Dremel rotary tool	Dremel, Racine, WI, USA	Dremel 8000-03	1
Diamond-coated drill bits for glass cutting	Available from various suppliers; MSC industrial Supply Co, Melville, NY	90606328	1