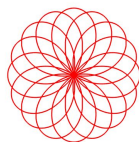


BioLumen Reactor

Materials List



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Materials for Cell Culture

Item	Recommended Quantity	Preferred Vendor
Magnetic Stir Plate	1	eBay
Magnetic Stir Bar	1	eBay
Lab Scoopula	1	Amazon
Lab Spatula	1	Amazon
Digital Milligram Scale	1	Amazon
Portable Camp Stove (Flame Source)	1	Amazon
Camp Stove Fuel	1	Amazon
25 mL Erlenmeyer Flask	1	eBay
250 mL Erlenmeyer Flask	1	eBay
1 L Media Bottle	1	eBay
Plastic Cell Culture Plates	20	eBay
Nitrile Gloves	100	Amazon
Industrial Spray Bottle	1	Amazon
Pressure Cooker	1	Amazon
Nichrome Inoculation Loop	1	Amazon
Serological Pipette Controller	1	eBay

Serological Pipettes	20	eBay
Vibrio Fischeri Starter Culture Kit	1	Carolina Biological Supply
Yeast Extract	100 g	Carolina Biological Supply
Seawater Aquarium Salt ('Instant Ocean' brand)	3 lbs	Amazon
Glycerol	500 mL	Carolina Biological Supply
Tris Base	250 g	Carolina Biological Supply
Ammonium Chloride	500 g	Carolina Biological Supply
Tryptone	500 g	eBay
Calcium Carbonate	100 g	Carolina Biological Supply
Agar	100 g	Carolina Biological Supply
Distilled Water	1 L	Amazon
Ethanol/Isopropanol	500 mL	Amazon
Clorox Bleach	1 gal	Amazon

Materials for Construction of Bioreactor

Item	Recommended Quantity	Preferred Vendor
1000 mL Reaction Vessel	1	eBay
0.177" thick Acrylic	32" x 18", 2 sheets	School of Architecture Fab Lab
Acrylic Bonding Agent	4 oz	Sci-Grip Weld-On 4
Rubber Gasket, 1/8" Thick	12" x 12", 1 sheet	McMaster Carr, 8525T43
M4x40 Phillips Head BHCS	4	-
M4 Wing Nut	4	-
Water Heater, 1000 W, 120V	1	Denord
Thermocouple/Wire	1, 3 feet of wire	Amazon
pH sensor	1	Amazon
Magnetic Stirrer	1	eBay
1" Magnetic Stir Rod	1	eBay
Microcontroller	1	Raspberry Pi 4