

ODU BLAST 2021 KIT CONTENTS INFO

ODU BLAST 2021 Supplies

ENGINEERING WORKSHOPS

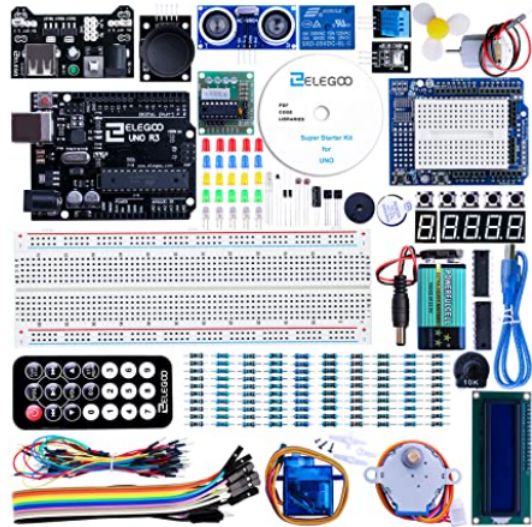
Mechatronics Makers Workshop and **Controls for Robotics** will use ELEGOO UNO Project Super Starter Kit with Tutorial and UNO R3 Compatible with Arduino IDE

Mechatronics Makers Workshop

- Arduino IDE setup
- Blink LED activity
- Control LED with PWM: LED, resistor
- Control multicolor LED: resistors, multicolor LED

Controls for Robotics

- Control stepper motor
- Control stepper motor with IR
- Fan Blade & 3-6V DC motor, Power supply module, Joystick Module, Stepper Motor, Stepper Motor Driver module, Breadboard, L293D H-Bridge motor driver, Breadboard Jumper wires, 9V1A Adaptor, Uno R3 (Arduino), USB Cable

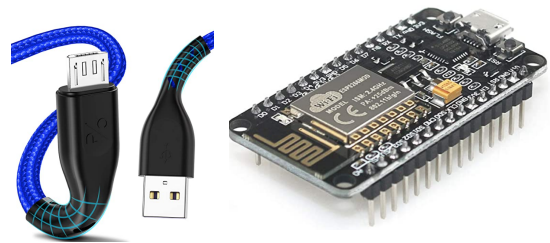


https://www.amazon.com/ELEGOO-Project-Tutorial-Controller-Projects/dp/B01D8KOZF4?ref=ast_sto_dp

1 Duracell extra battery - Duracell - CopperTop 9V Alkaline Batteries

Internet of Things - Sensing and Measuring the Environment

KeeYees Development Board WiFi WLAN Wireless Module for ESP8266 for NodeMCU for ESP-12E for Arduino



Water Water Everywhere and No Place to Go

4M 4572 Clean Water Science - Climate Change, Global Warming, Lab - STEM Toys Educational Gift for Kids & Teens, Girls & Boys

- This personal desalination kit demonstrates the scientific way to extract salt from sea water.
- The kit contains a plastic filter system, active carbon, sand, rock and filter paper



https://www.amazon.com/4M-4572-Clean-Water-Science/dp/B002JCOU9Y?ref=ast_sto_dp0

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SCIENCE WORKSHOPS

Physics

Our Home Planet and Its Place in the Cosmos

Standing Wave Kit

- Create a standing wave on a string to investigate properties of waves
- Participants will be able to create a standing wave at home with this device and follow along as we show what more complicated wave patterns can be created.
- Kit includes a motor, weight, string, battery, and battery holder.
- The website sells packs of 10 (\$57), but each person only needs one of the kit.



simple

<https://www.arborsci.com/collections/wave-motion/products/standing-wave-kit-10pk>

UV Beads

- Ultraviolet light reactive beads. Provides a method to prove presence ultraviolet light.
- Each participant will receive approximately 25 beads (\$0.50 each).



of

<https://www.arborsci.com/products/uv-beads-package-of-1000>

Rainbow Glasses

- Diffraction gratings as glasses.
- Shows the diffraction of light into its separate colors.



<https://www.arborsci.com/collections/color/products/rainbow-glasses>

Crooke's Radiometer

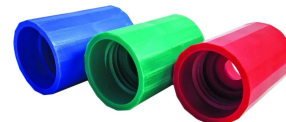
- Can be used to show the presence of infrared light, molecular motion, and thermodynamics.



<https://www.arborsci.com/collections/executive-gifts/products/radiometer>

Vortex Tube

- Will be used during the demo evening demo show. This demonstration will be shown on both the small scale with this piece of equipment and large scale with 5-gallon containers.
- Participants will be able to follow along at home or recreate demo on their own time. Instructional guide how you can use them:



same

the

https://cdn.shopify.com/s/files/1/0030/6207/1369/files/P1-1120_Instructional_Guide.pdf?v=1590588551

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Biology - Impact of Climate Change on the Living World

Red Cabbage Powder | Water Soluble Food Dye | Amazing in the Kitchen or for Cocktails! Makes Color-changing Beverages and Dishes in Red Or Magenta



https://www.amazon.com/dp/B07P8LWYVK/ref=cm_sw_em_r_mt_dp_6J2MJ2B687C8SQ42PYGH

Baking soda, Arm & Hammer Baking Soda, 1 lb

<https://www.amazon.com/Arm-Hammer-Baking-Soda-16/dp/B000PYF8VM>



Citric acid- Relative Foods, Food Grade Citric Acid, 2-Pounds, Packaged in our allergen free facility, stand up pouch with resealable zipper.

<https://www.amazon.com/Citric-Acid-pounds-Packaged-resealable/dp/B07K4R4J43>



Resealable Zipper Bags, small - GOOACC GRC-54 ZDI-0202 100 Count
Resealable Zipper Poly Bags, 2 by 2-Inch, 50mm, Clear



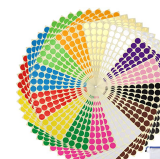
<https://www.amazon.com/GOOACC-GRC-54-ZDI-0202-Resealable-Zipper/dp/B00AFRWK02/>

Biodegradable Paper Straw, Assorted Rainbow Colors Striped Drinking Straws for Juice, shakes, Cocktail, Coffee, Soda, Milkshakes, Smoothies, Celebration Parties and Arts Crafts Projects

<https://www.amazon.com/Biodegradable-Assorted-Milkshakes-Smoothies-Celebration/dp/B07FLR29RL/>

Stickers for labeling reagent bags - 3920 pcs 3/4" Round Coding Circle Dot Labels
File Pocket, 14 Colors

<https://www.amazon.com/Round-Coding-Circle-Labels-Colors/dp/B07GZDJG6Z/>



with

Bags to keep the kit together (must fit the 20cm long straw) - Kingrol 100
Count 7 x 10.25 Inch Kraft Paper Bags with Resealable Lock Seal Zipper &
Transparent Window, Stand Up Food Bags



<https://www.amazon.com/Kingrol-Resealable-Zipper-Transparent-Window/dp/B08BL64VJ5>