Ceaseless Flow - Bill of Materials Full BOM

| CATEGORY       | DESCRIPTION                       | QTY | ITEM (Proposed)  | ITEM (Used In Prototype)  | UNIT PRICE | PRICE (inc. TAX, SHIPPING) | VENDOR            |
|----------------|-----------------------------------|-----|--|---|------------|----------------------------|-------------------|
| Lamp Structure | Columns                           | 1   | 3/4 in. x 36 in. square hardwood dowel, Cut to size                            | 3/4 in. x 36 in. square hardwood dowel  | \$5.99     | \$6.52                     | Hardware store    |
|                | Crossbar                          | 1   | 3/4 in. x 72 in. hardwood dowel, Cut to size                                   | 3/4 in. x 72 in. hardwood dowel   | \$7.99     | \$8.70                     | Hardware store    |
|                | Lamp Base, Light Engine Cover     | 1   | 1 1/4 in. x 2 ft. x 2 ft. plywood, Cut to size                                 | 1/4 in. x 4 ft. x 8 ft. plywood   | \$27.92    | \$30.40                    | Home depot        |
|                | Bowl                              | 1   | Clear Plastic Fluted Serving Bowls, 8 in.                                      | Clear Plastic Fluted Serving Bowls, 8 in.   | \$1.25     | \$1.36                     | DollarTree        |
|                | Bowl Suspension                   | 1   | Fishing Line, Cut to size  | anezus Fishing Line Nylon String Cord Clear Fluorocarbon<br>Strong Monofilament Fishing Wire            | \$6.59     | \$7.18                     | Amazon            |
|                | Bowl Suspension                   | 4   | Extension Spring with Loop Ends, 29.2 mm Long, 3.5 mm OD, 0.7 mm Wire Diameter | Extension Spring with Hook Ends, 29.2 mm Long, 3.5 mm OD  | \$1.99     | \$8.67                     | Hardware store    |
|                | Bowl Suspension                   | 1   | Fishing Swivels, 4pcs  | Size 1+1 (31lb) fishing swivels, 25 pcs   | \$9.99     | \$10.88                    | Amazon            |
|                | Bowl Content                      | 1   | Water beads  | EBOOT 10000 Pieces Gel Soil Water Crystal Beads Gel<br>Jelly Water Gems Vase Filler (Clear)             | \$6.99     | \$7.61                     | Amazon            |
| Lamp Shade     | Outer Shade                       | 1   | Rattan Cane Webbing, Cut to size   | Rattan Cane Webbing roll (5 feet)   | \$64.99    | \$70.77                    | Amazon            |
|                | Inner Shade                       | 1   | Black Ink Soft Unryu Paper - Chiri, 23" x 35", Cut to size                     | Black Ink Soft Unryu Paper - Chiri, 23" x 35"   | \$5.39     | \$5.87                     | Blick             |
| Light Engine   | Light Engine Middle Plate         | 1   | 1/4 in. x 4 ft. x 8 ft. plywood  | 1/4 in. x 4 ft. x 8 ft. plywood   |            |                            | (scrap materials) |
|                | Light Engine Support Dowel        | 4   | 0.45" Round Wood Dowels  | 1/4" Hex Bolt   | \$0.00     | \$0.00                     | School Supply     |
|                | Light Engine Support Dowel, small | 4   | 0.2" Round Dowels  |   |            |                            | (omitted)         |
|                | Light Engine Bottom Plate         | 1   | 1mm Acrylic Sheet, Cut to size   |   |            |                            | (omitted)         |
|                | Assembly Hardware                 | 6   | 4-40 5/8" Male Threaded Standoff   | 5/8" Female Threaded Standoff   | \$0.00     | \$0.00                     | School Supply     |
|                | Assembly Hardware                 | 9   | 4-40 Locknut   | 4-40 Locknut + 4-40 Head Screw  | \$0.00     | \$0.00                     | School Supply     |
|                | Assembly Hardware                 | 3   | 4-40 Thin Locknut  |   |            |                            | (omitted)         |
|                | LED Base Board                    | 1   | 1.6mm Aluminum Sheet, Cut to size  | Upcycled 1.6mm 4" x 5" PCB Board  | \$1.66     | \$1.81                     | Bantam Tools      |
|                | PCB                               | 1   | 1.6mm Double-sided PCB, Milled according to design                             | 1.6mm 4" x 5" Double-sided PCB  | \$1.66     | \$1.80                     | Bantam Tools      |
|                | LED Heat Sink                     | 4   | LED heat sink module   | SV-LED-314E<br>Round Heat Sink LED Module   | \$2.97     | \$12.94                    | Digikey           |
|                | LED Module                        | 4   | Vollong 5W White High Power LED  | Vollong 5W White High Power LED   | \$6.95     | \$30.27                    | Super bright LEDs |
|                | PCB Parts                         | 1   | Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 0.1uF X7R 0805 10%            | Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 0.1 uF X7R 0805 10%                                    | \$0.00     | \$0.00                     | School Supply     |
|                | PCB Parts                         | 1   | Resistor 10K OHM 1% 1/4W 0805  | Resistor 10K OHM 1% 1/4W 0805   | \$0.00     | \$0.00                     | School Supply     |
|                | PCB Parts                         | 1   | Multilayer Ceramic Capacitors MLCC - SMD/SMT 0805 25VDC 10uF 10%               | Multilayer Ceramic Capacitors MLCC - SMD/SMT 0805<br>25VDC 10uF 10%                                     | \$0.00     | \$0.00                     | School Supply     |
|                | PCB Parts                         | 4   | Resistor SMD 220 OHM 0.1% 1/4W 0805  | Resistor SMD 220 OHM 0.1% 1/4W 0805   | \$0.00     | \$0.00                     | School Supply     |
|                | PCB Parts                         | 4   | Wirewound Resistors - Through Hole 5W 20 Ohm 5%                                | Wirewound Resistors - Through Hole 5W 20 Ohm 5%   | \$0.00     | \$0.00                     | School Supply     |
|                | PCB Parts                         | 4   | N-Channel MOSFET, 32 A, 60 V QFET, 3-Pin TO-220 ON Semiconductor               | FQP30N06L N-Channel MOSFET, 32 A, 60 V QFET, 3-Pin<br>TO-220 ON Semiconductor                           | \$1.97     | \$8.58                     | Digikey           |
|                | PCB Parts                         | 1   | ATTINY84   | ATTINY84  | \$2.73     | \$2.97                     | Digikey           |
|                | PCB Parts                         | 1   | STEP-DOWN-DC-DC-CONVERTER  | BULVACK 10 Pack LM2596 DC-DC Buck Converter Step<br>Down Module Power Supply DIP Output 1.25V-30V 3A    | \$1.60     | \$1.74                     | Amazon            |
|                | Wire                              | 8   | 22 AWG Electrical Wire, Cut to size  | 22 AWG Electrical Wire  | \$0.00     | \$0.00                     | School Supply     |
| Power          | Wire                              | 1   | 12 AWG Electrical Wire 2 Conductor, Cut to size                                | 12 AWG Electrical Wire 2 Conductor  | \$0.00     | \$0.00                     | School Supply     |
|                | Power Supply                      | 1   | 12VDC Power Supply   | DC 12V 5A Power Supply Adapter Converter Transformer<br>AC 100-240V input with 5.5x2.5mm DC Output Jack | \$12.59    | \$13.71                    | Amazon            |
|                | Power Connector                   | 1   | Barrel-Style DC Connector Push-In Receptacles with Solder Connection           |   |            |                            | (omitted)         |
|                |                                   |     |  |   | SUM        | \$218.09                   |                   |