

Table 1: Bill of Materials

| Bill of Materials | | | | | | | | |
|--------------------------------|----------------|-----|------------------------|------------------------------------|--------------------------|---|-------------------|---|
| Bio-Inspired Energy Efficiency | | | | | | | | |
| Team | | | | | | | | |
| Part # | Part Name | Qty | Description | Functions | Material | Dimensions | Cost | Link to Cost estimate |
| 1 | Frame | 4 | Structure of design | Structural Integrately | A500 Square Steel Tube | 1-1/2 X 1-1/2 X 1/4 wall (in) Length: 20 ft | \$136.00 | https://www.metalsdepot.com/steel-products/steel-square-tube?gclid=Cj0KCQIARentBRCoARIsAFc1FqdhAQsaj8mPqN66L1h9nli7oxGVXILfjY-YkZQzetzZdfmu3YRxiMAq0u |
| 2 | Paneling | 3 | Side and top sheets | Protects Against Weather | Galvanized Steel Sheet | 5 x 10 ft | \$346.50 | https://www.metalsdepot.com/steel-products/steel-sheet |
| 3 | Solar Panel | 2 | Panel to collect solar | Collects Solar | Solar Panel | 3 X 5 ft | \$310.00 | https://www.wholesalesolar.com/2931725/sma/inverters |
| 4 | Inverters | 1 | Power converter | Converts DC power to AC | Inverter | 28.5 X 21.1 X 7.8 in | \$1,325 | https://www.altestore.com/sma-sunny-boy-5.0-us-inverter |
| 5 | Filters | 6 | HVAC Filter | Filters incoming air into building | Filter | 20 X 20 X 2 in | \$50.70 | https://filterbuy.com/air-filters/20x20x2/ |
| 6 | Fan/Blower | 2 | Cross Flow Blower | Distributes air into building | Blower | 108 X 201 X 90 mm | \$76.60 | https://www.alliedelec.com/ebm-papst-55416-27250170105093?mkwid=sNcM3uIw&derid=30980760979&dkw=&pmf=&qclid=EA1a1O0bChMI_KKB-onz3dIVd8h9Ch2daO2FEA0YAAVABEd_8cVD_BwF |
| 7 | Smart Material | 2 | Shape memory material | Actuate vents | Nitinol Torsional Spring | 5 coils 5mm wire | \$300 | https://www.kelloggresearchlabs.com/Nitinol/Nitinol-SPR1nas?product_id=315 |
| Total Cost Estimate | | | | | | | \$2,544.80 | |

The Bill of Materials represented (Table 1) does not match the Computer Aided Design file which is submitted along with this. This is due to a large amount of refining needing to be done on the proposed design. The Bill of Materials we have shown are the hypothesized materials we believe will be used in a complete design. This Bill of Materials may have more components added and could have components removed as well.