

Smart Table Financing

The project received a financial grant from SSU Office of Undergraduate Research and Creative Experiences (SOURCE) in the amount of \$500. This financial funding helped the project by funding the table build in the fall 2015 semester. In addition it funded the electronic components and some the electrical parts used for this project. The following financial budgets have been divided into three parts: table build, electrical, and electronics.

Description	Quantity	Unit Cost	Cost
BME280 Humidity and Ambient Temp.	1	\$5.66/sensor at Mouser	\$5.66
TSL2561 Digital Luminosity Sensor	1	\$5.95/sensor at Adafruit	\$5.95
MCP9808 Solar Cell Temp.	1	\$1.22 at Mouser	\$1.22
Voltage Divider	1	\$1 at Mouser	1\$
AD8210	1	\$4.56/chip at Mouser	\$5
RaspberryPi 2	1	\$69.99 at Amazon	\$69.99
Weather Protection	N/A	N/A	\$20

Total: \$108.82

Description	Quantity	Unit Cost	Cost
RNG-100D Solar Panel	1	\$137	\$137
Renogy charge controller	1	\$79	\$79
12 Vmax battery	1	\$30	\$30
Invertor	1	\$45	\$45

Total: \$291

Description	Quantity	Unit Cost	Cost
2x12 - 8' RDWD CON HRT ROUGH	1	29.54/board	\$29.54
2X12 - 12' RDWD CON HRT ROUGH	2	44.31/board	\$88.62
Galvanized Lag Screws 5/16 x 1.5in	20	\$0.43/screw	\$8.60
Galvanized Flat Washers 5/16	20	\$0.17/washer	\$3.40
Gloss Black Rust Oleum Protective Enamel Oil Based	2 qt	\$8.37/qt	\$16.74
Angle Iron 1.5 x 1.5 x ¼ inch	20ft	\$21.90/20ft	\$21.90
Angle Iron 1 inch equal length	40ft	\$22/20ft	\$44
Nuts ¼ in	12	\$0.14/nut	\$1.68
Bolts ¼ by 4in	4	\$0.69/bolt	\$2.76
Bolts ¼ by 1in	8	\$0.23/bolt	\$1.84
Washers ¼ inch flat	24	\$0.12/washer	\$2.88
Sheet Metal	2ft x 4ft	N/A	\$10
Battery Box	Amazon	\$15 on Amazon	\$15

Total: \$252.96

Financial Summary:

Table Build Cost: \$252.96

Electrical Cost: \$291

Electronic Cost: \$108.82

Total Project Cost: \$652.78

Special Thanks:

Our project would like to give special thanks to our faculty advisor, Professor Saeid Rahimi. We would also like to give thanks to the entire faculty in the Engineering Department at Sonoma State University. In addition we would like to offer special thanks to our off-grid specialist mentor and our manufacturing engineer mentor for their excellent mentorship in building the table and charge station. We also would to give thanks to Hanan Sedaghat Pisheh for offering help in building the table and charge station. We also would like to thank the people who took the time to survey our project.