

# URBANSOLEIL

## The Next Urban Energy Revolution



### Objective

Given limited budget and resources, urban spaces often have difficulty determining the best locations to invest in alternative energy. The goal of UrbanSoleil is to allow cities to easily determine the optimal locations to place solar cells for **highest return of investment**.

With a built-in solar tracker, UrbanSoleil provides state-of-the-art solar tracking for **real-time alignment with the sun**. This helps the on-board solar cell in precisely determining the maximum solar efficiency of any spot.

### Precise Tracking



### Low Power

UrbanSoleil boasts extremely low power. The two circuit boards **can operate for 25 days** on a 3.7V 1200 mAh Li-Poly battery without recharging. This device can run very efficiently and serves the purpose of long-term analysis of roof space for solar viability.

With only two boards, which are sized at 1.6" x 1.8" and 0.7" x 0.7", the entire setup fits in a 5" x 3" x 1.5" space, allowing for **highly accurate pinpointing** of the most optimal locations for solar cell installment.

### Small Size



### High Accuracy

With its on-board 16-bit processor, UrbanSoleil can capture solar data with **.0015% error** and with a 10-bit ADC driving the solar tracking, UrbanSoleil can track the sun with less than **.01% error**.

UrbanSoleil logs temperature and solar cell output current data every four minutes. The data is stored in the microprocessor EEPROM and, in v2.0 will log data straight to your Apple device via **Bluetooth**.

### Data Logging



*Farita Tasnim*  
Aspiring Electrical/Energy Engineer  
(512)-945-2373

# Meet UrbanSoleil

Farita Tasnim

Aspiring Electrical/Energy Engineer

(512)-945-2373

