

# AWARD OF DISTINCTION



Project Title

**Flare Storm**

Student Name

**Luke Johnson**

Level

**Senior**

Course

**Industrial Design Studio V**

Advisor/Instructor

**John Houlihan & Robert Brainard**

Principal Investigator

**Robert Brainard**

Department/School

**Design Department,  
University of Bridgeport,  
Bridgeport, Connecticut**

## SUMMARY DESCRIPTION OF PROJECT:

The Flare Storm is an emergency light and radio for disaster situations. Designed as part of the senior level industrial design studio, the intent is to combine three elements -- a flashlight, an emergency radio, and a hand powered generator. form•Z was used along with sketch development early in the design process to explore the possible product configurations. It naturally followed to continue using form•Z for finalizing the concept and rendering images for the final presentation.

## REASONS FOR THE NOMINATION:

This student continues to show his understanding of 3-D modeling, and Their command of form•Z. In spite of a number of other software programs at their disposal at the University of Bridgeport, they continue to come back to form•Z for their conceptual and communication needs. Specifically he/she demonstrates an excellent level of development in form•Z, excellent presentation with form•Z, and an excellent all around integration of form•Z with the design process.

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### **Problem:**

Virtually every human-powered radio currently on the market has an aesthetic that another already possesses, and a battery charging method based on the same old paradigm of a awkwardly positioned rotating handle. Designed essentially as a standard emergency tool, uniqueness is hard to find in the mix.

### **Solution:**

This design noticeably shifts both the visual and functional paradigms of human-powered emergency radios, and a unique product emerges most appropriate for those in the 12-20 age range. It has an immediate presence with its bright coloring and strong, purposeful form. Its two methods of charging are conveyed by its shape, with a large handle and substantial wheels for rolling, along with finger "cups" used to rotate the armature of the dynamo inside. The radio buttons and display are large and simple to find, a help in many emergency situations where the radio could potentially be used.

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### 3 WAYS TO CHARGE

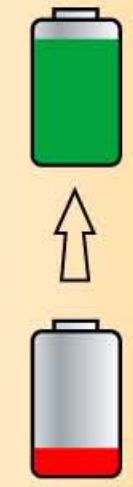


**PUSH**  
**FIG 1.**  
 A WHOLE NEW WAY TO CHARGE



**FIG 3.**  
 STANDARD AC POWER SUPPORTED  
**PLUG**

**WIND**  
**FIG 2.**  
 A NEW TWIST ON THE TRADITIONAL METHOD OF CHARGING



- The radio uses 3 primary methods to recharge the NimH batteries:
- 1 Rotating the dynamo connected to the front wheel axle
    - Fig 1. Push radio along surface to rotate the wheels
    - Fig 2. Rotate wheels by index finger placed in "cups"
  - 2 AC Adapter
    - Fig 3. Cord plugs into back

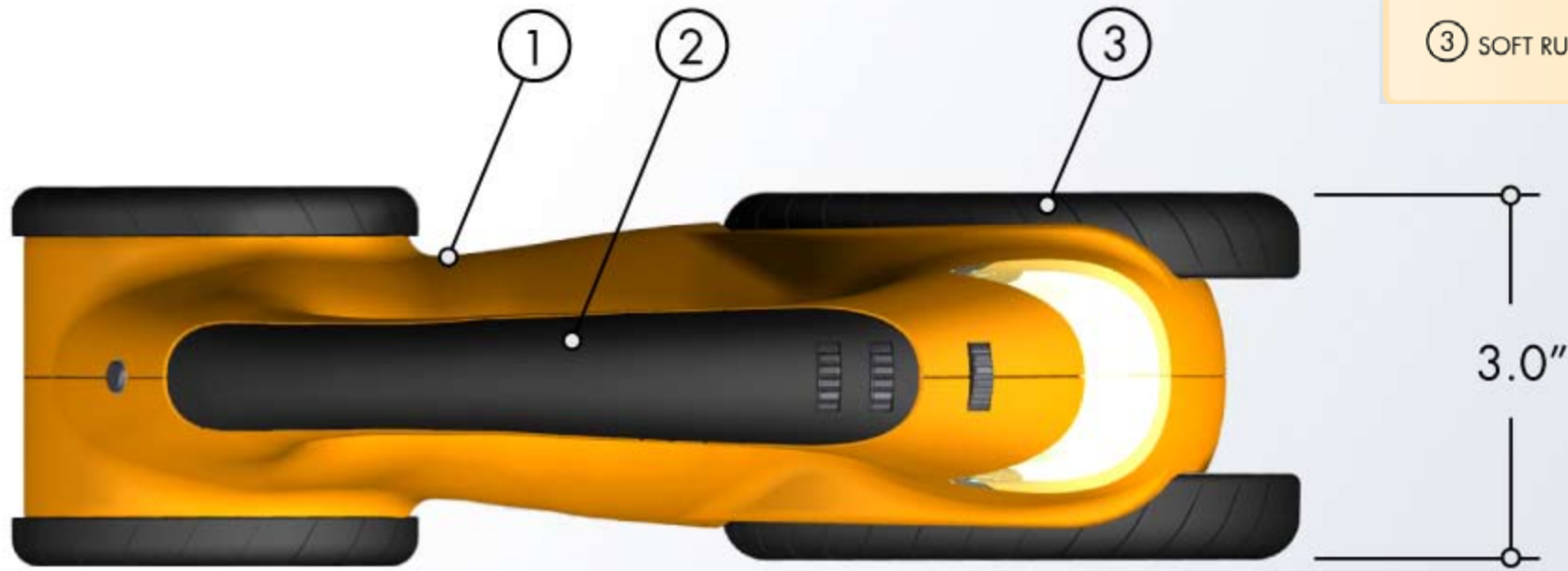
### JURY COMMENTS:

I felt this project was most adept at using the digital tools at hand to best communicate the design. The model was well detailed and the design thoroughly thought through. The student was able to use a combination of tools together seamlessly.  
**- Bart Overly**

This student displayed a command of the digital media that allowed him to explore both formal concerns as well as effective functionality as expressed both in the model and presentation layout. Well done renderings and diagrams as well as written text all work in unison to effectively describe this project. I would have enjoyed seeing this project fabricated, or perhaps, use layered rendering techniques to create an x-ray/cutaway type rendering to reveal the insides or materiality of this product and add a bit of variety to the imagery.  
**- Victor Martinez**

Upon viewing the first image I wondered where the driver sat... the hand image charging this product gave me the answer. This designer utilized the power of form•Z not only to beautifully model and virtually render Flare Storm to clearly communicate all its functionality features and show how the product works. The graphic plate layout was also nicely executed... I preferred the single plate with Flare STORM logo braking the top bar rule (be consistent). A well designed and strongly presented digital project. **- Dennis Andes**





**TECHNICAL INFO**

PRIMARY MATERIALS:

- ① POLYCARBONATE BODY
- ② POLYURETHANE TIRES
- ③ SOFT RUBBER HANDLE GRIP

**FLASHLIGHT**

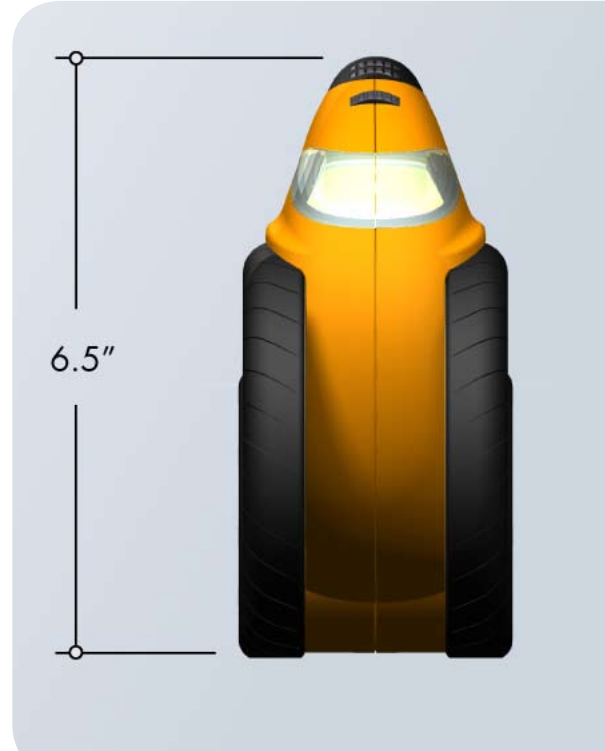
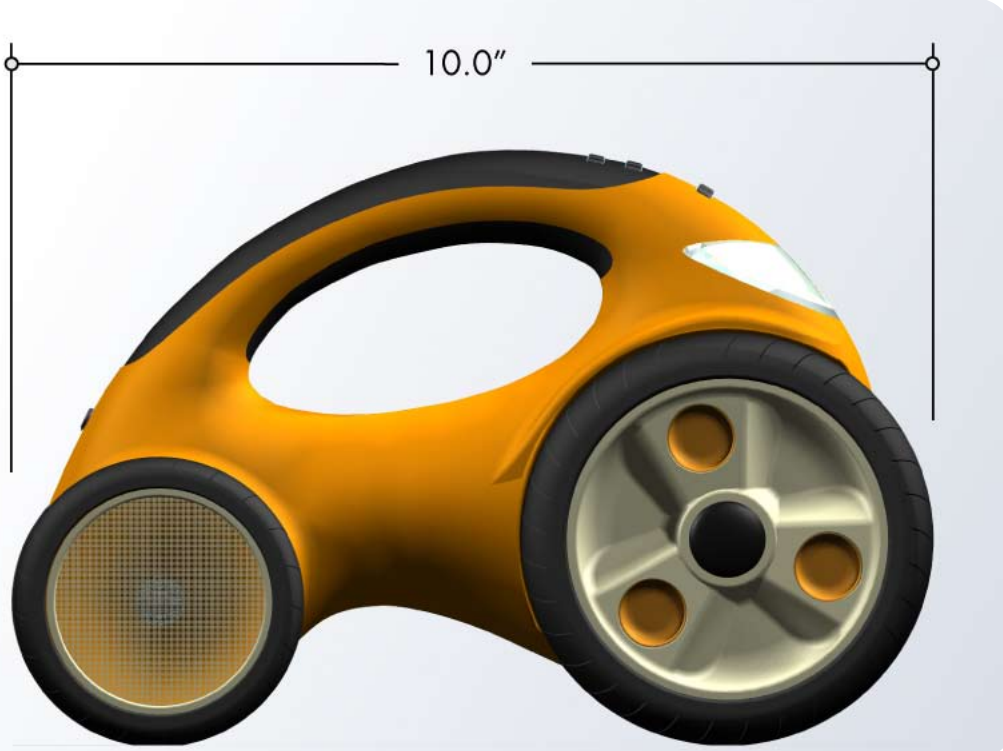
The Flashlight consists of 6 LED lights and has 3 modes for different circumstances:

**NORMAL MODE** ○○  
 All 6 LEDs turned on for maximum visibility ○○

**POWER SAVE MODE** ●●  
 2 of 6 LEDs on to increase battery life ○○

**STROBE LIGHT MODE**  
 LEDs flash on and off to grab attention

●● ○○ ●● ○○  
 ●● ○○ ●● ○○  
 ●● ○○ ●● ○○



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## SOUND/DISPLAY FUNCTIONS

The FlareStorm has many useful sound features, most of them appropriate for both normal and emergency situations:

- INFORMATION GATHERING
  - AM / FM / SHORTWAVE / WEATHERBAND / VHF / UHF
- ATTENTION-GETTER
  - MULTI-FREQUENCY SIREN

- LEGIBLE BACKLIT DIGITAL DISPLAY
- WATCH/ALARM FUNCTION
- 4 SOFT RUBBER BUTTONS TO CHANGE MODES
- BATTERY POWER INDICATOR



- ERGO-THUMB DIALS ALLOW FOR USE WHEN CARRYING
- DIAL FOR TUNING
- DIAL FOR POWER & VOLUME

- PUSH-LOCK TO STOP RADIO FROM ROLLING

- 3" CONE SPEAKER
- STEEL MESH COVER
- DOES NOT ROTATE WITH OUTSIDE WHEEL



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