PSES High-Tech Toys 2012

- Agenda
  - Select technology update
  - Applications
    - Observe
    - Communicate
  - Q&A along the way
The High-Tech Toy

- Definition
  - Gadget+more
  - Takes all spare cash
  - Need more than one
  - Novelty to others
  - Necessity to us!
Survey by Hands

- Facebook, Twitter
- E-reader (Kindle, Nook)
- Tablet PC
- Laptop
- Smartphone (Windows, iOS, Android)
- FRS radio
- Weather alert receiver (NOAA SAME)
- Internet TV (Roku, Google, Apple)
- Electric/Hybrid vehicle
- AC generator
- Solar power (phone, panel, radio, watch)
- Amateur radio mobile rig (20+ watts)
Flying Shark

- Air Swimmer
- Shark is filled with helium
- Control to 40 feet
- Infrared remote
- $30
Robot

- Karotz
- Social media helper
- Friends can take control in order to communicate, sending messages as well as audio files
- integrated webcam
- Send a poke & Karotz’ ears will move
  - Change the color of its light in order to get your attention when all other forms of online communication fails
- RFID activating children
- App store
- News, weather, sports, email, & PC commands
- $180
RCA BR950

- 2013 FCC Compliant
- 5 Watts UHF / VHF
- 400-470 MHz UHF / 136-174 MHz VHF
- 256 Channels
- CTCSS / DCS
- Narrowband / Wideband
- X-Sound PlusTM – Enhanced Audio Clarity with 1000mW Loud Speaker
- 10 Character Alpha-Numeric LED Display
- DTMF Keypad
- Time-Out Timer
- Battery Saver Mode
- MDC1200
- RDC2400TM
- Man Down
- Emergency Signaling
- Lone-Worker Function
- Built-In Encryption - Type Voice Scrambler
- Text Messaging
- Various Scanning Methods
- Phone System Integration Capability
- Two Programmable Function Keys
- Class IP67 Approval for Dust & Water Protection.
- Ultra Durable with Reinforced Compound Molding
- $525
SpareOne

EMERGENCY MOBILE PHONE
NATURAL DISASTER

"I couldn't find power anywhere"

[ When finding POWER is the most important option! ]

When re-charging your phone at home or office is no longer an option, the SpareOne is ready to use with a shelf life of up to 15 years.
Speaker

- BluCan
- Bluetooth speaker
- 360-degree sound
- Controls for play, pause, track forward, track backward, answer, volume, & hang-up
- Coming soon
<table>
<thead>
<tr>
<th>Brand</th>
<th>Duracell® Ultra Power™ AA</th>
<th>Kirkland Signature AA</th>
<th>Energizer® max® AA</th>
<th>Energizer® Ultimate Lithium™ AA</th>
<th>Lenmar® NiMH 2500 AA</th>
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<tbody>
<tr>
<td><strong>Price per Use</strong></td>
<td>$1.243</td>
<td>$0.330</td>
<td>$0.868</td>
<td>$2.246</td>
<td>$0.005</td>
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<tr>
<td><strong>Capacity (@0.7A) mAh</strong></td>
<td>1442.5</td>
<td>1399</td>
<td>1691</td>
<td>3009</td>
<td>2296</td>
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<tr>
<td><strong>Capacity (@1A) mAh</strong></td>
<td>1300</td>
<td>1023</td>
<td>1329</td>
<td>3045</td>
<td>2189</td>
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<tr>
<td><strong>Cost per Watt-Hr</strong></td>
<td>$0.637</td>
<td>$0.215</td>
<td>$0.435</td>
<td>$0.498</td>
<td>$0.002</td>
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<tr>
<td><strong>Ratio to CA Electric Rate</strong></td>
<td>4253:1</td>
<td>1436:1</td>
<td>2904:1</td>
<td>3322:1</td>
<td>10:1</td>
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</tbody>
</table>
Rechargeable AA Kit

- Eneloop 1500 Super Power Pack
- Rechargeable 1500 times without memory effect
- Low Self Discharge: Batteries maintain 75% of charge after 3 years of non-use
- Pre-charged & ready to use
- 4 position charger with worldwide voltage charges up to 4 AA or 4 AAA cells
- Convert AA cells into C or D cells by using spacers
- $40
Battery+

- Duracell DPP-600HD Powerpack 600
- One DC outlet
- Three three-pronged AC outlets
  - 480-watt continuous / 600-watt peak
- 5-watt flashlight
- Overload/over-temperature protection & reverse polarity detection
- Built-in AM/FM radio & digital alarm clock
- 28-AH AGM battery (2x typical)
- Add Powerpoles!
- $140
The Bigger Emergency

- Underpants
- Unisex
- Single or dispenser
- $4 or $8
Disaster Surveyor

- Topy Survey Runner (S92-LW)
- Unmanned Ground Vehicle
- Environmental sensors
  - Radiation
  - Cameras
- 1300-ft tether
- 88-lbs
- CES $$$?
First Aid Kit

• Matsushita Electric Industrial Co.
• People will be able to consult doctors from home
  – Attached camera, monitor & microphone
  – Person's weight & percentage of body fat when the user sits on a toilet seat.
• Used in Japan’s disaster zones
1-TB Knife

- Victorinox (Swiss Army) brand
- 1 terabyte SSD data storage
  - 64GB, 128GB, & 256GB available
- USB 3.0 & eSATA ports
- 96x48-pixel display
- $3,000 later this year
Flashlight (Favorite EDC)

- Since 2010!
- Proton PRO Personal LED
- Single AA battery
- 2W Cree LED
  - ~115 max lumens
- White & Red beams
- 4 Safety strobe modes: Slow - Medium - Fast - SOS
- Signal / Morse Code mode
- $40
Flashlight (Guinness)

- “Torch”
- 4100-lumens
- 100-watt halogen
- Rechargeable
- $200
Flashlight with Camera

- High Powered White LED Flashlight
- "Dimmerable" LED light for different scenarios
- Highly durable with precision tooled aluminum housing
- Compact Size & portable DVR System
- Built-in 4GB Flash Light (supports up to 32GB)
- MPEG4 Video Recording (Video + Audio in AVI format)
- Built-in CMOS Color VGA Sensor (640×480)
- Support 2 Hours VGA Recording
- Night Vision support
- Backup using USB2.0 compatible interface
- Easy operation with one touch control
- Built-in Ni-MH Charger (12V input)
- $227
Firesteel

- Durable
  - Army model lasts 12000 strikes
- Produces a 3000°C (5,500°F) spark
- Works when wet
- Bright spark
  - Can be used as emergency signal
- Beware TSA
- $10
Scooter

- BOXX Electric Scooter
- Zero emissions electric vehicle
- All Wheel Drive (AWD) system
- Traction Control, ABS systems
- 35 mph
- 40 miles per charge
- Riders up to 300-lbs & 6’6” tall
- $4000
Super SUV

- Paramount Marauder
- Crew of 2 + 8
- Payload 5,000kg
- Various driveline, turret & weapon systems options including 4x4 & 6x6 vehicle configurations
- Air Burst
  - 155mm High Explosive at 60m Azimuth
  - 360 deg Elevation 0-30 deg
- Ballistic Protection
  - 7.62x54mm RB 32 API & .50cal API
    - (Equivalent to STANAG 4569 level III)
- Mine Protection
  - Double anti-tank mine (14kg TNT) under any wheel.
  - Single anti-mine (7kg) under the hull. (Higher than STANAG 4569 level 4a & 4b)
- $475,000
Float to Safety

- **Sevylor Colossus**
- 4-person inflatable boat ideal for rapids or river floats
- Durable 23-gauge PVC construction with Airtight system
- 3 separate air chambers provide extra puncture-resistance
- Double-Lock valves; includes 4 oarlocks & oars
- $85
Family Base Station

- 22 GMRS/FRS channels
- 10 NOAA weather channels with alert function
- AM/FM radio reception
- Clock with an alarm
- 3-LED flashlight
- VOX automatic voice-activated operation
- USB port for charging cell phones, radios, etc.
- Powered by
  - Dynamo hand crank
  - AC or DC power adapters
- Water resistant
- $61
Pure Water

- Katadyn Hiker PRO Water Microfilter
- Convenient filter for 1 to 2 persons
  - Hiking or camping
  - Emergencies
- Removable filter protector extends cartridge life in challenging conditions
- Compact design & easy operation—Fits in any backpack or travel bag
- Allows direct attachment to drink tube (1/4" ID) of hydration
- Additional hydration connector fitting for quick filling of hydration packs
- $70
No Salt Water

- Katadyn Desalinator
- Removes salt, bacteria, viruses & other contaminants
- 1 ounce of drinking water in two minutes
- Salt Rejection
  - 98.4 percent average
  - 95.3 percent minimum
- 2.5-lb
- $839
Breathe

- Disposable mask
- Bacteria & dust
- BFE 99.5
- PFE 99.7%
- Fluid resistant
- $5/50-pack
Heart

- Philips HeartStart Home Defibrillator (AED)
- Reliably runs daily self-tests for readiness
- Safely delivers a shock only if needed
- $1200
New Home Stat!

- DH1 Disaster House
- 14’ square shed built about 30” off the ground
- Not waterproof & insulation is not included
- $22,000
Alarm

- Kidde KN-COSM-B
- Carbon Monoxide
- Smoke Alarm
- Talking Alarm
- AAA Battery-Operated
- $30
Electricity

- Honeywell HW2000i
- 2000 watts
- 5 hours
- $650
Heat

- Portable 23,000-BTU kerosene heater
- 1000 square feet
- Automatic push-button ignition
- 1.9-gallon fuel capacity
  - 10 to 12 hours of heat
- Supplemental heating & emergency situations
- Fuel gauge; automatic safety shut-off; siphon pump & batteries included
- $100
Portable Camping Cooking Bag

DANGER

HEAT UP CANNED FOOD QUICKLY AND EASILY

INCLUDES:
- 50 Heating Packs
- 5 Measuring Cups
- 1 Reusable & Reheatable Food Warmer Bag

KEY FEATURES:
- The maximum heating temperature is 194°F (85°C).
- Heating time can last for 20-25 minutes.
- Can be used in most emergency situations.
- Suitable for camping, emergencies, & more.

WATER + WARMING PACK + FOOD

20mL (0.7 fl. oz.) water per heat pack to heat 10-12 oz. of food

NO FIRE, NO ELECTRICITY!
JUST ADD SOME WATER!

© SE 2009

$13
Stove

- Boils water in 5 minutes
- Works well in extreme weather conditions (waterproof & windproof)
- Compact & portable
- Sets up & cleans up in seconds
- Fuel source is safe & non-explosive
- $25
Cooktop

- PerfectFlow InstaStart Fold'n Go
- Two 10,000 BTU burners
- $80
Sleep

- TETON Sports Outfitter XXL Cot
- Oversized camping cot with patented steel leg frame
- Supports up to 600-lbs
- Hassle-free setup; measures
- 85 x 40 inches when open
- Folds up to 42 x 12 x 7
- $116
“S*%t Camo Pack” (£18.99 PER PACK)

1. Pop box
2. Unfold box
3. Fold and insert tabs
4. Fold over seat and lid
5. Turn box over and insert stabilisers
6. Press down bag handle locators
7. Insert poo bag, relief!
8. Seat!
Crowd Control

- Jet Pulse Water Cannon Kit
- Riot control
- Short pulse, long pulse or continuous stream
- $120,000
“Active Denial”

- Crowd control
- New class of nonlethal weaponry
- Uses rays & energy to rapidly heat up someone’s skin
- 95-GHz
- Pea-sized blisters in less than 0.1% of the exposures
- ~$3M prototype
Radiation Monitor

- Monitoring is "ON" 24/7 with long-life 10-year battery
- Range encompasses the higher emergency radiation levels
- EMP immunity
  - Meets
    - MIL-STD-461D
    - RS105
- $160
Potassium Iodide

- FDA approved for thyroid blocking in a radiation emergency (only)
- $14
Emergency Radio

- **Voyager Radio Features**
  - AM/FM
  - Shortwave 1 & 2
  - 7 Weather Bands
  - NOAA Emergency Weather Alerts

- **Lighting Features**
  - LED Flashlight
  - Red LED Emergency Flasher
  - 5 LED Reading Light

- **Power/Charging Features**
  - Solar
  - Dynamo (Hand Crank)
  - 3 "AA" Batteries
  - AC Adapter (not included)
  - USB Port

- $58
Mobile Digital TV

- On tablets & smartphones
- Live TV (not ATSC)
- Mobile Emergency Alert System
- PBS Las Vegas
Wrap Up

• Show & tell
• Questions
• Answers