Turning Science Into Sound Bites



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Grand Idea Studio, Inc.

The Security "Industry"

Yesterday

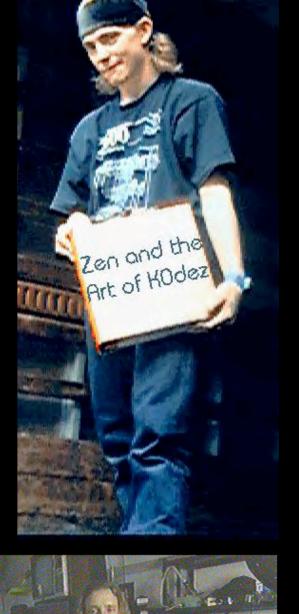














The Security Industry

Today









The Problem

- A diverse collection of people
 - Hackers
 - Executives
 - Media/PR
 - Marketing
 - Sales
- Varying levels of technical competency
- Lots of different agendas



The Problem 2

- How to creatively convey technical information to a non-technical audience?
 - Product demonstrations
 - Security advisories
 - Software functionality/enhancements
 - Electronics design
 - User manuals
 - Etc.
- You need to tell a compelling story



Prototype This!

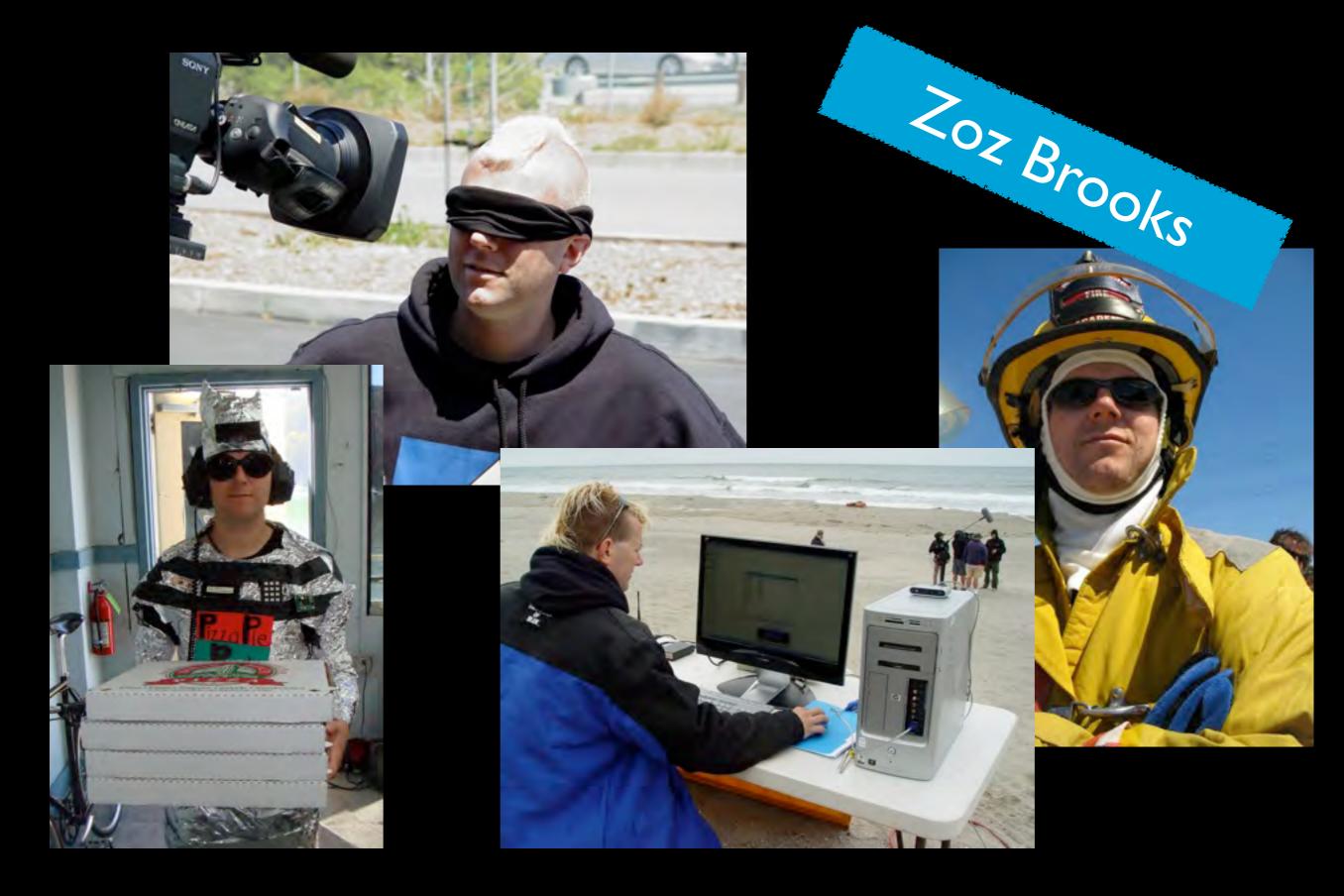
- Engineering entertainment program on Discovery Channel
- Four guys building prototypes of crazy things
- Try to follow the "true" design process
- Premiered October 2008 (US), ~February 2009 (World)
- Thirteen episodes
- ~I million viewers/episode
- www.discovery.com/prototypethis





electrical engineer. hardware hacker. daddy.





robotics. software programming. mit.





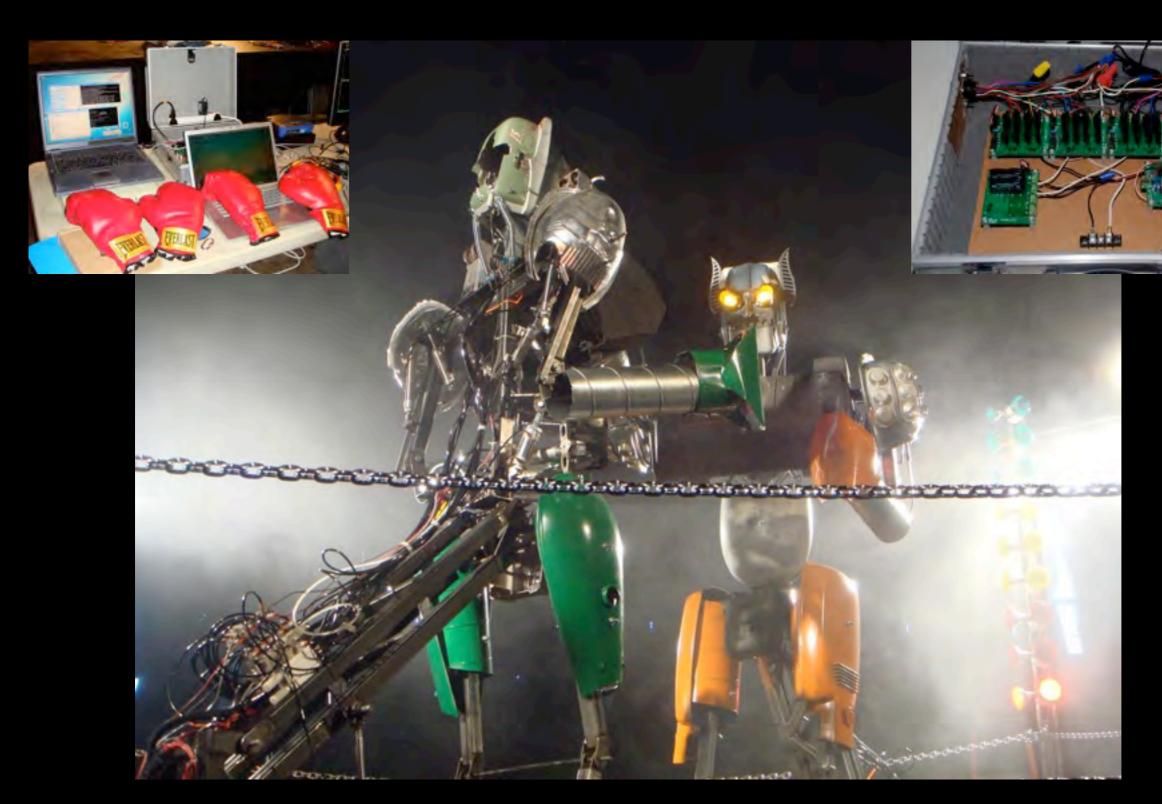
materials scientist. mechanical engineer. ucsb.



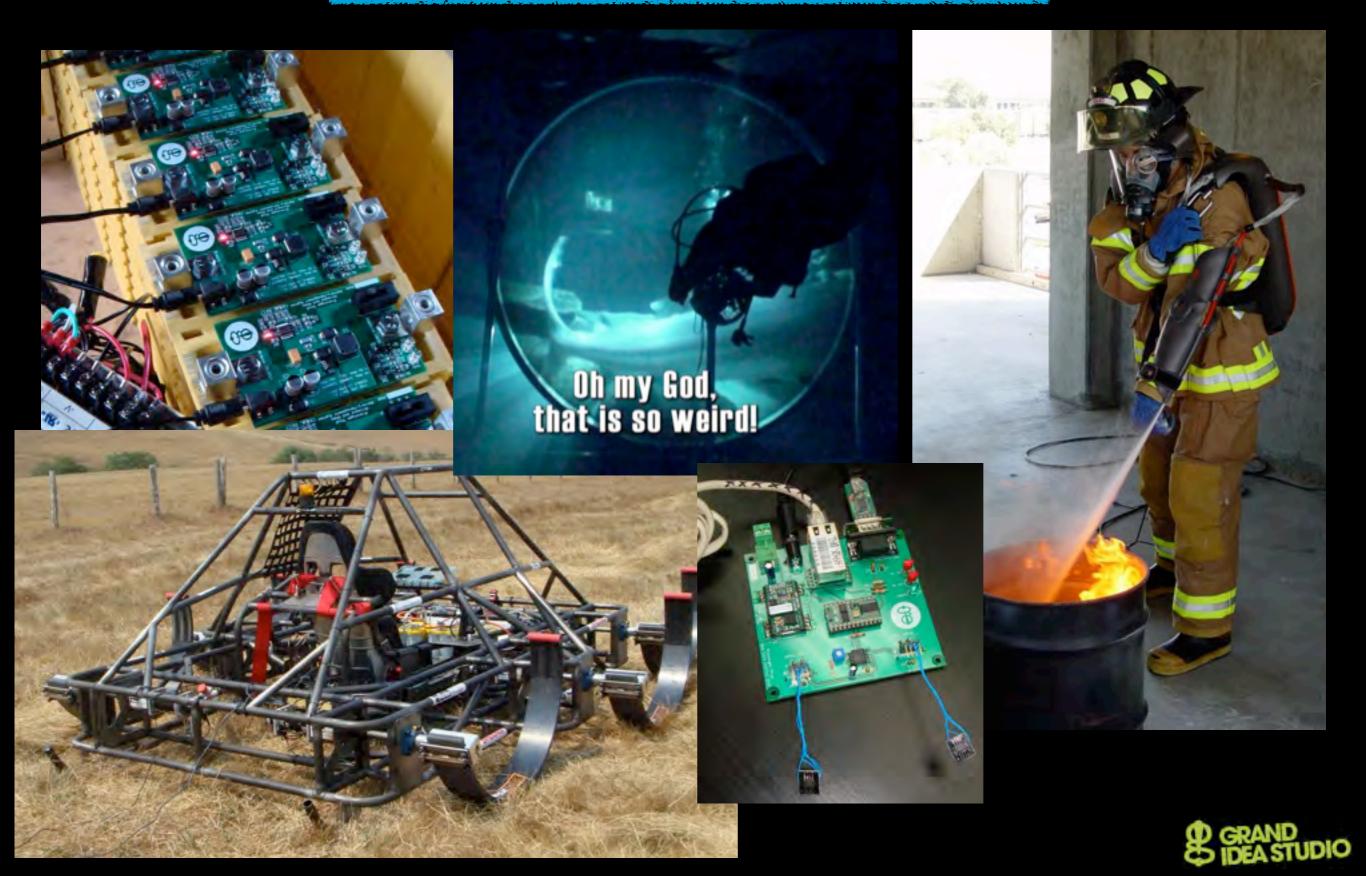


special effects. machinist.

























With not a lot of this...





(Contrary to popular belief...)



Television Production/Editors/Execs

- Most were not technical and didn't care to be
 - Were only interested in the final result
- Did not understand the complexity of the tasks
 - Assumed everything was easy
- No back end process or planning
 - Just throw some guys in a room to start building
- Wanted unrealistic projects that had never been done before built in two weeks or less
 - Ex.: X-ray glasses, personal force field



The Similarities are Striking...

- Engineering v. TV Production
- Security Professional v. Media
- Technical v. Management



Us v. Them

- Television
 - Us: Smart engineering, clever designs, show off our skillz
 - Them: Look cool on TV, sell advertising space, appeal to a wide audience
- Security
 - Us: Smart engineering, clever designs, show off our skillz
 - Them: Educate customers or end users, enhance their products, get media coverage



Can't See the Forest for the Trees

- As technical people, we often feel like we need to share every miniscule design detail
 - Sometimes we need to, but usually we don't
 - Can cause non-technical people to miss the point of your work



The Thought Process

- Need to understand your target
 - Put yourself in the mind of the audience
 - What would they really want to see/read?
- Need to understand your motivation
 - What are you trying to get out of it?
 - What information do you really need to present and why?
 - What does your audience need to take from it?



The Thought Process 2

- Break the information down into segments/ key points
 - Overview What is the goal?
 - Description What are the pieces involved and how do they work?
 - Demonstration/Exposition Show your results
 - Additional Details If necessary
 - Conclusion Explain what you've just achieved and why is it important to the larger picture?



Telling the TV Story

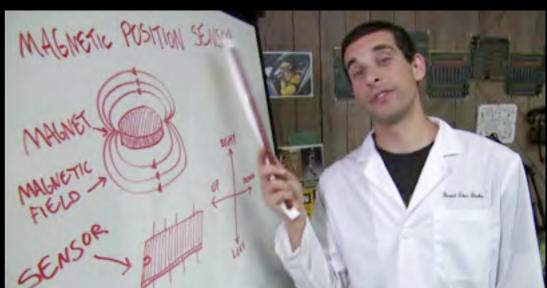
- Podcasts
- Demonstrations/Tests
- Payoff/Finale



Podcasts

- Based on content and editing style of Joe & Bre's "Awesome Electronics Workshop" podcasts for MAKE
 - www.grandideastudio.com/portfolio/ awesome-electronics-workshop/
- Funny, quirky, frantic to make boring content interesting







Demonstrations/Tests

- Help to visually explain concepts or milestones along the way
- Sometimes they didn't go over very well and weren't used
 - But, trying new things was part of the fun



Payoff/Finale

- The climax
- Show that the build actually worked (or not)
 - Failures are a learning process
 - "If everything you try works, then you are not trying hard enough" - Gordon Moore, Intel
- Drives the final point home about what we were setting out to do



In Conclusion

- Understand your audience and present accordingly
 - One size does not fit all
- Break the information down into bite-sized segments/key points
- Use graphics, video, or audio to supplement your explanation
- A little creativity can go a long way
 - Don't be afraid to try new methods of explaining your work



