Features of effective Tech Review demonstration videos

The Technical Review is an informal, hands-on prototype demonstration that takes place entirely in the lab. In 15-minute-long sessions, each team demonstrates its prototype to small groups of reviewers (instructors, mentors, and occasionally outside experts) who go from team to team interacting with and testing the prototype.

Each team also gives **a 5-minute prototype demonstration that is videotaped**. Advice on preparing for the video is the topic of this handout.

While there are many effective Tech Review video examples in the 2.009 Gallery, **four are emphasized here**, and there is a de-construction of one of them (Lentil Cleaner) on pages two and three of the handout.

For examples, go to the link and click Tech Review tab. They are **best viewed in Chrome**.

> **KOACH/**interactive boxing bag
> http://designed.mit.edu/gallery/view-2014-KOACH.html
>
> **Glow/**interactive yoga mat http://designed.mit.edu/gallery/view-2013-Glow.html
>
> **Sky Beacon/**emergency signal for boats
> http://designed.mit.edu/gallery/view-2012-SkyBeacon.html
>
> **Dash/**spice blender http://designed.mit.edu/gallery/view-2010-dash.html
>
> **Lentil Cleaner** http://designed.mit.edu/gallery/view-2005-Lentil.html

Although the prototypes are different, the demonstrations share important features.

- The user **problem** and/or **needs** and **product description** are clearly described at the outset.

- They are well **structured**, unfolding with clarity because of a deliberate sequence of "scenes," that is, movement from demo part to part.

- The narrator uses **a precise and consistent vocabulary** for components of the prototype and their function. (Think: nouns for components and verbs for function.)

- **Supplementary materials**, such as illustrations mounted on foam core that were used in the lab demonstration, are incorporated into the video and narration.

- All four demonstrations appear to be well planned and **practiced**. (Note: The Dash narrator has a script in hand, which is not recommended. Teams wanting to use prompt cards should prepare cues, mount them on foam core, and have a teammate hold them up behind the camera.)

Please keep in mind that **studying the examples** in preparation for the video **can also inform your team's preparation for the longer live demonstration**.

Detailed analysis: Lentil Cleaner video

To show what goes into an effective video, we've provided a transcript and de-construction of the Lentil Cleaner video: http://designed.mit.edu/gallery/view-2005-Lentil.html. To the right of the transcript are notes on the features of the narration that might help your team plan and organize your demo.

While the logic of your video should reflect your product, the **scene structure** of the Lentil Cleaner video is effective and could perhaps be modified or re-arranged for your product.

Video transcript: Lentil Sorter (Tech Review '05)	Observations (or, How the Video Works)
This is our Lentil Sorter. Our main goal is to separate lentils from rocks, chaff, and other formed material at a processing rate of 50 bushels per hour.	**Scene 1**: One-sentence product description.
We have a rectangular base frame attached to a sandwiched screening structure. The screening structure contains two screens enclosed by a polycarbonate upper and a metal lower. [pause] There is a vibrator attached to the screening structure, so that the harvest is agitated as it flows down the screen and the switch to the vibrator is located on the side of the machine. [pause] At the top of the hopper, there is… At the top of the machine there is a hopper, and this facilitates the flow of the lentils… this is the entrance point for the lentils onto our machine. [pause] Now we will run the machine.	**Scene 2**: An overview of the product design that delineates its parts. Her use of specific and vivid verb phrases conveys a lot of information about the product. It's okay to make a mistake and restart the sentence. Nice cue.

[Presenter is silent as lentils are poured into hopper. Then, lentils agitate.] Rocks and other formed material larger than lentils remain on the upper screen. Chaff and other formed material smaller than lentils are sifted through the lower screen. The material from the upper screen is channeled into a chute and directed into a large bin. Similarly the clean lentils are channeled through a different chute and collected into another bin. The chaff falls into a bin located under this machine. [Presenter is silent while bin under the machine is shown. Product runs for a few moments.]	**Scene 3**: demonstration. More great verb phrases in this scene. She uses short and long pauses strategically.
[Product runs.] Ideally, the machine will not require constant supervision. To accomplish this, we designed the machine so that it would work with a number of loading and unloading conditions. For example, an auger or conveyor system can be used to dump lentils into the hopper or it can be used to transport the clean lentils from the chutes into the storage bin. [pause] Since 90% of farmers in North Dakota have conveyor systems, we believe this is a reasonable requirement for our machine.	**Scene 4**: awareness of customer needs. Implies a customer need, and problem to be solved. --must be flexible --must be adaptable/fittable to other equipment --this is suitable for majority of intended customers
We are also aware that our customers would benefit from a portable device and we plan to use a wheel or hitch system in order to address this issue of portability. So, this is one of the few improvements we will focus on for our final alpha prototype. Thank you.	**Scene 5**: outstanding issues She communicates a problem in the language of the positive, as if to convey that what's a problem now will be improved.