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The 3M Micro Professional Projector

The most frustrating situation as a presenter is to arrive with your presentation in hand only to find that the needed equipment is locked up or missing a necessary cable. When you are prepared for every contingency, presentations usually come off without a hitch. So carrying your own digital projector is certainly the best way to go—if you can find one that doesn't weigh a ton, isn't humongous in size, and doesn't need a government bailout to make the purchase. Here's one that many educators would find very handy that takes full advantage of emerging technology.

The new 3M Micro Professional projector (MPro 110; \$399 list) is the first generation of an emerging technology (Photo 1). The size of a small TV remote control, it is designed to be hooked up to any device that can transmit a video signal.

Appropriate devices include digital cameras, video phones, video MP3 players, DVD players, personal video players, video game machines, and, of course, computers. The unit's imager supports VGA (640 × 480 pixels), SVGA (800 × 600 pixels), and XGA (1,024 × 768 pixels) resolutions.

This micro projector has its own internal lithium ion battery, which, when fully charged, can provide you

with enough running time for an hour presentation. For longer presentations, you just plug the supplied cable into the projector and into an electrical outlet. The unit doesn't

have a speaker system, so if you plan on using it to project a video, the audio will need to be supplied by your output device or a



Photo 1 (above)—3M Micro Professional projector

Photo 2 (right)—Project up to a 50" image to any available surface

Photo 3 (below)—The LCoS electronic imager



the larger the image and the poorer the reflective nature of the projection surface, the more it will be necessary for you to fully darken the room. (See Photo 2.)

So what makes this little machine tick? The 3M Micro Pro image projection system is based around a physically tiny advanced liquid crystal on silicon (LCoS) electronic imager (Photo 3). 3M uses a multi-colored

light-emitting diode (LED) lamp as its light source. This lamp choice reduced the electricity needed to run the projector. Since LEDs run so cool, it also removed the need to include any internal cooling system. Finally, the overall low energy draw of the unit makes it possible for 3M to run the unit on battery power for about an hour while still keeping its total weight to 5.6 ounces.

Before you run out and purchase one, I do need to caution you that the power output of this unit is only seven lumens. Many DLP projectors are rated at 1,000 to 2,500 lumens. This basically means that this micro projector would work best for a presentation before a small group, to share photos still on a digital camera with a group of friends or students, or to save the day if a projector isn't

available when you need to give a presentation to a larger group.

From the emerging technology perspective, the unit is groundbreaking, and if 3M stays on target, the guts of this machine will start to appear later this year as an internal feature in some cell phones and digital cameras. You can view this tiny



separate sound system.

You can project up to a 50" image to any available surface. Obviously,

machine in action at www.technologytoday.us/id27.htm.

Recalling the Facts

1. What are the significant advantages and disadvantages of the MPro 110 over other digital projectors?

2. If you were a member of the engineering team that developed the first generation of this technology, describe significant developments you would want to implement in future generations. ©

Alan Pierce, Ed.D., CSIT, is a technology education consultant. Visit www.technologytoday.us for past columns and teacher resources.