

CITE LITEBOARD

Have you ever wanted to teach a concept online but struggle with either recording the back of your head for the students to watch, or being limited by screenshots, screen recordings, and PowerPoints?

Online explanation of mathematical and scientific concepts is a tough task to conquer. Northwest Missouri State University is breaking through this barrier with the CITE LiteBoard.



The CITE LiteBoard is modeled after Michael Peshkin's light board. Peshkin is a professor with Northwestern University and developed the first light board as a way to record short video lectures using a chalkboard without losing connection with the students. The Learning & Teaching Center at Northwest Missouri State University felt the same way, and decided to build a small version to try out before investing in a larger version.

LESSONS

- Glare on Board/ Red Record light
- Type of markers to use
- Cleaning the Board
- Additional Lighting
- Record Button/Remote
- Sound
- Promote it
- Depth of Process

OBSTACLES

- Weight- Glass is Heavy
- Location- Needs Dedicated Space
- Cost
- Electrical
- HVAC- Additional for Lights/ Equipment
- Maintenance/Management
- Training
- Usage

CURRENT

\$ 400

Materials

- 3' x 2' Wood frame
- 1/2" thick, low iron, architectural, tempered glass
- 4' LED tape (cut down to 3')
- 3' metal trough (to help dissipate heat from the LED strip)
- Dimmer Knob
- 100w output transformer
- 2 additional slide lights
- Canon XA10 HD with audio input attachment
- Body mic with wireless transmitter
- Windex for cleaning
- Neon Expo Markers
- Amara.org
- Camtasia Studio 8
- Northwest Cloud (homegrown media repository)
- Dragon Naturally Speaking 13

Process

Record the lecture. Edit the recording, if needed. Record a Dragon profile (first time only). Separate an audio file of the presentation to run through Dragon. Transcribe the audio file using Dragon. The following can be completed by faculty or student captionists; Edit the Dragon transcript; Upload the transcript and the video to Amara.org; Sync the caption timing, creating an SRT file; Upload the video and the SRT file both to Canvas or Northwest Cloud.

FUTURE

\$ 8000

Materials

- 4' x 8' Steel Frame
- 1/2" thick, low iron, architectural, tempered glass
- 24' LED tape (on all sides)
- 24' metal trough (to help dissipate heat from LED strip)
- Dimmer Knob (possibly reuse)
- 100w output transformer (reuse)
- Studio lighting
- Body mic with wireless transmitter
- Possibly add an removable (30% opaque) piece. Allowing for projecting more demonstrations
- Northwest Cloud (homegrown media repository)
- Camtasia Studio 9
- Dragon Naturally Speaking 13
- Amara.org

Process

Record the lecture. Edit the recording, if needed. Record a Dragon profile (first time only). Start the script to produce video (separate an audio file of the presentation to run through Dragon. Transcribe the audio file using Dragon). Edit the Dragon transcript; Upload the transcript and the video to Amara.org; Sync the caption timing, creating an SRT file; Upload the video and the SRT file both to Canvas or Northwest Cloud.

FACULTY

Jenni Wall, Associate Professor of Mathematics: "I thought it was really helpful to be able to both write so they could see what I was doing step-by-step, while also demonstrating with my hands what I needed to demonstrate. In math, I like for them to be able to visualize concepts that I can demonstrate with my hands while also being able to draw pictures. This allowed for both. As long as the videos will be used semester after semester, they are definitely worth the time to create!"

STUDENT

The students said they really thought the videos were helpful. One student said that it made her a little motion sick trying to figure out how I was writing backwards, but once she ignored that she really appreciated the videos.

