This semester, my senior spring, I had the joy of receiving a CAMIT Director's Grant to support an arts tech project of mine surrounding the questions of light and aesthetic and how we can expand on them both together.

I proposed a piece of multiple resins where the user could touch and place them down and see them interact with LEDs and a laser for illumination. My final piece features this, with some modifications from my original design (such as limiting the path of the laser to be circular instead of linear and using less resins to fit into a circular path) and adding flat LEDs to see the colors of the cubes before the laser.

When interacting with the art piece, the user places cubes on the stand and when they do it illuminates with blinking white LEDs. If you press on the cube again the laser will move towards it. When there are multiple cubes down the laser will go to it for a few moments, then turn off and go to the next cube if there are multiple.

When all the cubes are down the LEDs simply go on and off in order, inviting the user to play with the pieces.

The piece will be on display in our lab and will be talked about the my PI's undergraduate students to encourage more students to think about creative electronics (in particular with lighting) and to apply for CAMIT grants during their undergraduate career at MIT.

Photos and Videos
Here are some photos and videos available on my website — feel free to use them in any CAMIT documentation.
Web page with selection: ninalutz.github.io/TurningLight
Google Drive with all the things: https://drive.google.com/open?id=1PYOcFR3q6k29r5SL3IYxD5BhgTg_RpJi
Main video:

Process and Materials
The resins are cast from polyester resin and eyeshadow pigments. These were in molds and cured for 36 hours. I chose a variety of colors and amount of pigments to create a nice palette for my final piece.

Furless Cosmetics was kind enough to donate some pigment samples. The rest were purchased with CAMIT funds.