



Electrical, Computer & Energy
Engineering
University of Colorado Boulder

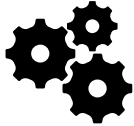


Sponsored by :
Professor Eric Bogatin

Special thanks to:
Gabriel Altman and John Lettang

Bringing the magic back to science, I designed a "wand" that can activate an insulated "box" through gestures.

SYSTEM DESCRIPTION



- Two ESP32C3s ("wand" and "box" are communicating with Bluetooth through clear acrylic with a battery life of over 10 hours.

- Users must cast 4 'spells' (gestures) with the "wand" that will work to unlock the final secret of the 'box'.

RESIN "CASTING" RECIPE

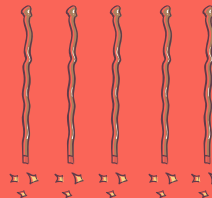
"Alchemical"
Vacuum Pot



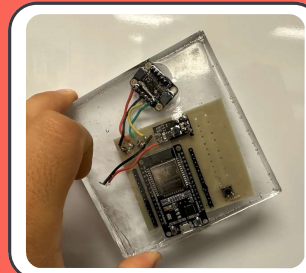
Printed Circuit
Board



"Casting"
Ingredients



Resin "Casted" Box"



SYSTEM DESCRIPTION

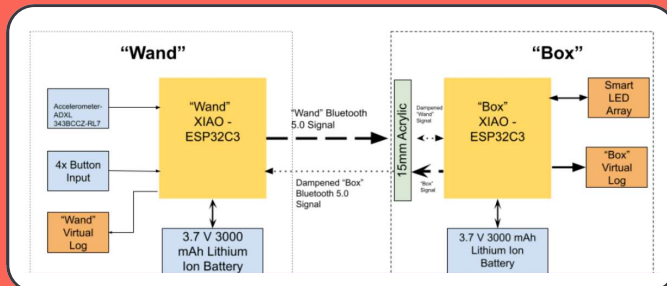


- Test Functionality of Wireless Signals through solid acrylic

- Create an educational electronics kit for students to interface with.

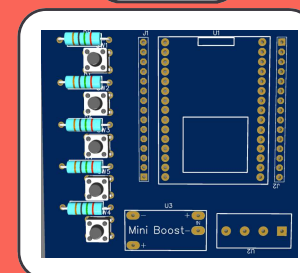
- Material be used in the "Introduction to Wizardry and Spellcasting Course". **

FUNCTIONAL DIAGRAM

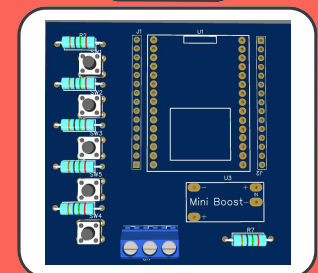


PRINTED CIRCUIT BOARDS

"Wand"



Box



**Must be accepted into CU School of Witchcraft and Wizardry to attend course.