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ECEG 400/401

Profs. Cheville & Kabalan

Final Reflection

Wrapping up my second semester of senior design (and my college career at Bucknell), this class has proven to be one of, if not the most valuable class I have taken away from my college education. This semester definitely had its difficulties (both inside this class and out) but I still found it rewarding in spite of that. This semester, I mainly increased my efforts on the Portal Box enclosure. One marked change in my approach to the design compared to last semester was the change from building out of separate laser-cut (or 3D-printed) panels to just two separate 3D printed components, the box and the lid. This solution to building the enclosure tackled a lot of issues at once. Two printed components, albeit requiring some soldering to apply brass screw thread inserts, are much easier to assemble than the several laser-cut panels and aluminum base plate required of the previous design. This in turn also brought the cost down significantly, with an estimated cost of about $7 for each enclosure.

My role has remained the same as last semester; the one major difference would be the increased focus on the enclosure and its ergonomics as opposed to sourcing and programming screens and keypads.