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Massachusetts **Science & Engineering** Fair



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Science Fair presentation



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start

**High School Fair**

start

**Regional fair****International fair****State fair****Science and Engineering Fair Map**

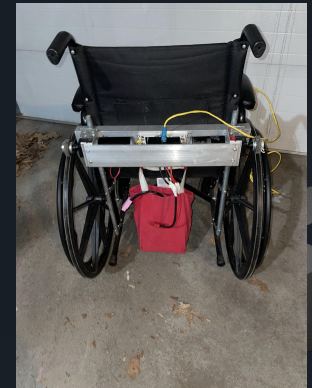


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PAWE

Portable Affordable **Wheelchair** Enhancer





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What is PAWE?

PAWE is an electric attachment for wheelchairs that will enable them to have the same abilities as electric wheelchairs.

Why is PAWE?

Electric wheelchairs on average cost upwards of \$2000 to buy and are very costly to bring around. On the other hand PAWE would cost around \$150 and is modular and is extremely portable.





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Encryption Decoded: Effects of Cipher Choice on Entropy

**Could historically-used ciphers actually be stronger
than modern encryption?**

**Which cipher will keep our private data the most
private?**

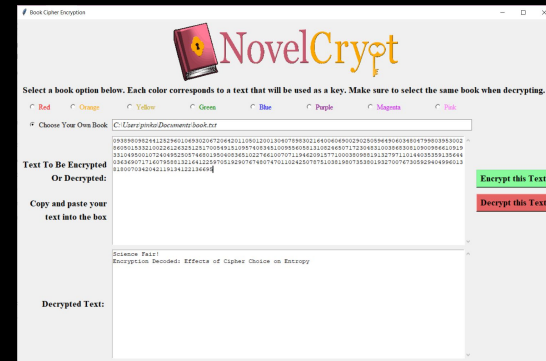




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- I created a computer program that tested many different types of encryption to find the strongest, including both modern and historically-used ciphers
- After running 990 tests, I discovered that the modern industry standard for encryption was not as strong as an older encryption type
- I coded a program that digitized this historically-used cipher, creating a new encryption methodology that is better than the current industry standard and offers better security





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PAWE

We plan to bring PAWE to market so that people of all different backgrounds can get a PAWE for a cheap and affordable price.

Steps to get there:

- Finalize PAWE
- Create a patent
- Make a private business
- Pitch PAWE to an established company

Encryption Decoded

I plan to do more research on encryption, then create a better program to encrypt documents easily, using the strong encryption type I discovered in my research. I can use this methodology to create a new industry standard, protecting the world's data from future data breaches and hackers.

