Tips for creating a strong password

✓ **Mix it up:** Make your password at least 12 characters, and mix it up with at least two or three different types of characters (lowercase letters, uppercase letters, digits and symbols), put in unpredictable places. Don’t put capital letters at the beginning or digits or symbols at the end.

✓ **Don’t be predictable:** Avoid including names of people or pets, places you have lived, sports teams, stuff you like, or birth dates. Avoid common phrases (especially anything related to “love” in any language) and song lyrics. Don’t use patterns (“abc,” “123”), including patterns on the keyboard (“1qazxsw2”).

✓ **Try an original sentence:** One way to make a strong password is to create a sentence that no one’s ever said before and use the first letter or two of each word as your password, mixing in other types of characters.

For more information visit: cups.cs.cmu.edu/passwords

Carnegie Mellon University
Passwords research at Carnegie Mellon

The Carnegie Mellon Passwords research team has collected empirical data on how people create passwords and what factors determine a password’s strength. Visit our website to learn more: cups.cs.cmu.edu/passwords

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✓ Password Guessability Service
✓ Password quiz game
✓ TED talk video
✓ Over two dozen passwords research papers