

CS 101

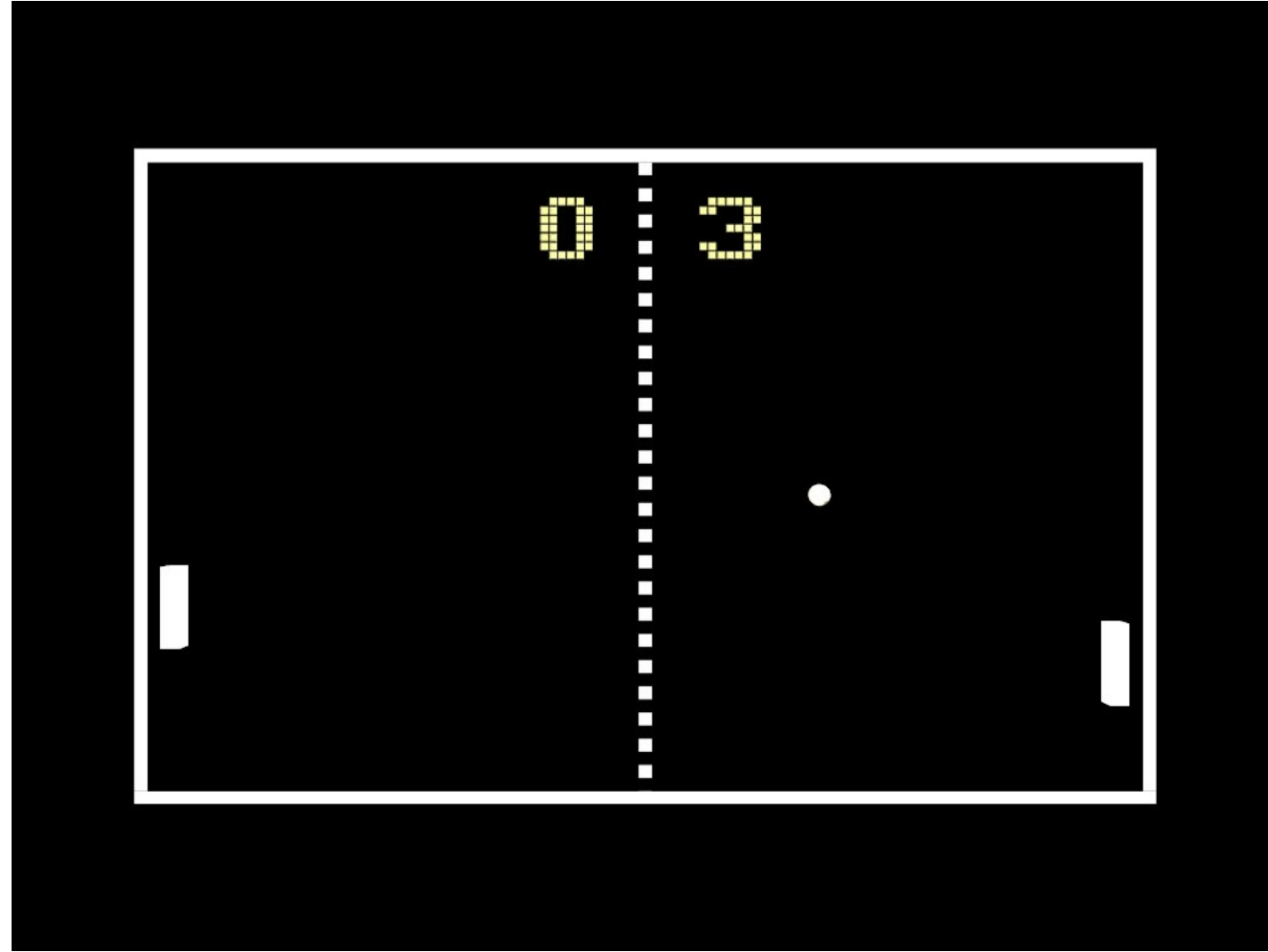
Computer Programming and Utilization

Projects

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Pong

- <https://en.wikipedia.org/wiki/Pong>
- <https://www.youtube.com/watch>
- Simulate ball motion within a closed polygonal space
- Simulated ball motion with 1 player within rectangular space
- Simulated ball motion with 2 players within rectangular space



Projectiles, Slingshot

- Simulate projectile motion caused by a slingshot
- Make a game out of it, where the user uses the slingshot (direction and initial speed) to hit targets



Rube Goldberg machine

- https://en.wikipedia.org/wiki/Rube_Goldberg_machine

PGM image files

- Reading PGM files
- Writing PGM files
- Simple manipulations of PGM files
- https://www.cs.swarthmore.edu/~lammert/cs35/s15/Labs/extras/01/pgm_info.html
- <https://hinumduman.home.blog/2018/08/21/basic-operations-on-image-processing-using-pgm-file-formats/>
- <http://www.codeding.com/articles/pgm-image-manipulation>
- Image compression using run-length encoding
 - https://en.wikipedia.org/wiki/Run-length_encoding