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Time Capsule  
  
Our team, Victor Vvuong, Victor Sze, Oliver Jang, and John Hoang would like to recreate some of the retro games circa 1970’s and on. We are doing it simply because it is of interest to us, we all are/were active gamers in our lifetimes and would like to create this project in commemoration of those memories. We also believe it is of appropriate complexity.

The focus behind our project will be the re-creation of two retro games, Pong, and Galaga or Donkey Kong. We will be using C, and virtualize the game on a Rasberry PI through QEMU. We will use our HAL lab as a launching point, using its mechanics to output pixels onto QEMU. We will then accept user input through a keyboard causing transitions in the pixels to create the ball bouncing or the ship moving for example. We may also add a bit of flavor on top of our otherwise faithful recreation of these old classics.

Through the virtualization of Rasberry Pi with QEMU we will be writing for an OS inside an OS. We will need a keyboard driver to be able to actively poll for user input to control aspects of the game. We will also be interacting directly with the drivers to display to the screen.

Tasks:  
0) Schedule meetings/ decide on games to recreate  
1) Game/architecture design  
2) Game menu  
3) Pixel design of paddle/ball and depending on choice of Galaga or Donkey Kong other pixelated art  
4) Game controls/user input/QEMU output  
5) Game logic  
6) Q&A Testing  
7) Deployment

Based on the tasks above, the completion dates for the above will loosely follow:  
0) November 7th, 2019  
1) November 11th, 2019  
2) November 17th, 2019  
3) November 17th, 2019  
4) November 17th, 2019  
5) November 25th, 2019  
6) November 26th, 2019  
7) November 28th, 2019