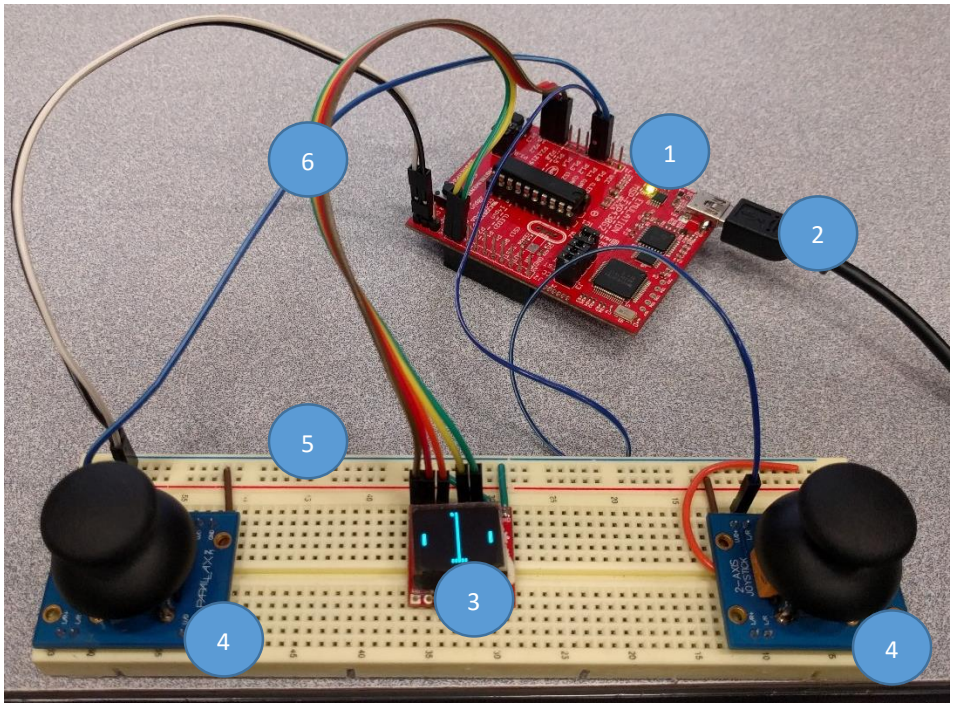
Project:

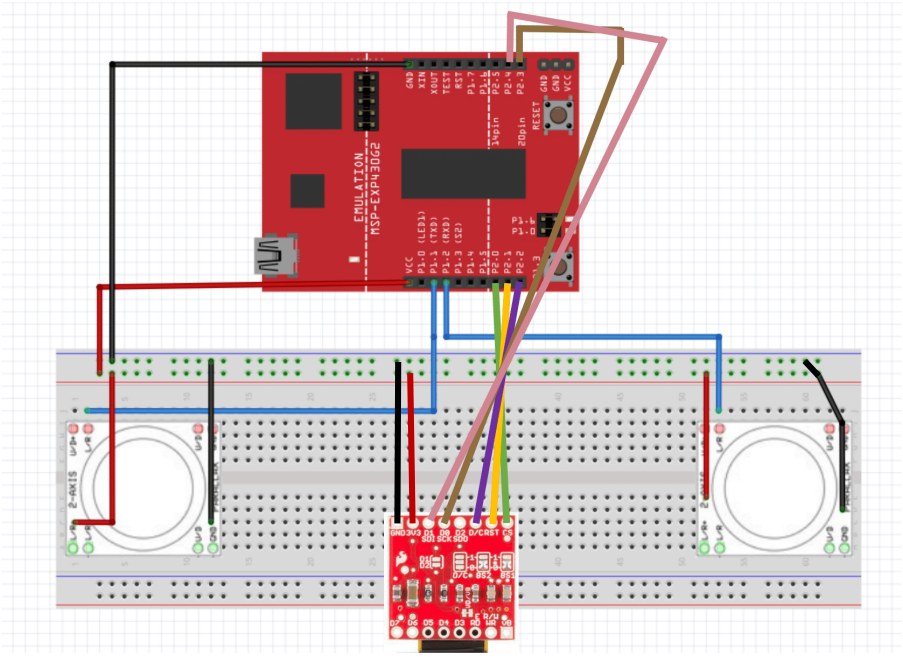
Program pong onto an MSP430G2553



Materials:

1) 1x MSP430G2553 or compatible board (here)
2) 1x USB mini A to USB A (should have come with board)
3) Sparkfun Micro OLED Breakout (here)
4) Parallax 2-axis joystick (here)
5) Breadboard of at least 34 rows
6) 15x connection wires (9x female-male, 6x male-male)

Step 1:



Wire up the whole thing following the diagram above.

Step 2:

PLAY GAME!!!

Footnotes:

The hardest part about setting this whole program up was using SPI to communicate with the OLED. The datasheet on the display is very limited. Our main reference sheet was a C++ Arduino library. In order to initialize the display, the D/C pin must be pulled low and a series of twenty-three commands must be transferred over SPI to the display. After the display is initialized, the entire memory map (384-Bytes) must be transferred to the display. For the memory map data, the D/C pin must be pulled high. The most challenging part was getting the waveforms correct. We used an oscilloscope to troubleshoot these.