***Abstract:***

LCD based array sorter:

**Objective:**

To implement sorting using even-odd sort algorithm on hardware.

**Equipment:**

The user interacts with the system through the Terasic LT24 LCD touch module that is connected to the Deo-Nano Soc board.

**Algorithm:**

The traditional sorting algorithms in software are executed as one operation per cycle. In hardware we can perform some of these operations like swapping the registers simultaneously. Even-Odd sorting algorithm is used to exploit the power of parallel operations in hardware.

(One more idea:

The order of the sorting whether it is ascending order or descending order can be changed by the trigger from the accelerometer!)