

Name:

Student Id:

Class:

Group Id:

■ Task 1: Bubble Sort

- Write the code to bubble sort a list of 10 numbers
- At the end, all numbers should be sorted
- Show the number of swaps on LED9_0
- Show the number of comparisons on Hex3_0
- Repeat experiment with 20 and 30 numbers (or more if needed) with data of decreasing numbers
- Record #swaps and #comparisons for the three experiments in a table
- Write down your code with comments and flowchart on this lab sheet
- Signature of TA after checking your result:

■ Task 2: Improve bubble sort by swapping the biggest element with the last element of the array

- Sort 10, 20 and 30 numbers (or more if needed) of decreasing values in three trials
- Record the experimental data in a table
- Compare the performance of this algorithm to the previous bubble sort algorithm
- Difference in #swaps?
- Difference in #comparisons?
- Write down your code with comments and flowchart on this lab sheet
- Signature of TA after checking your result: