```c
//Wave Sort
#include <stdio.h>
int main() {
    int n;
    printf("Enter the size of the array: ");
    scanf("%d", &n);
    int arr[n];
    printf("Enter the elements of the array: ");
    for (int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }
    for (int i = 0; i < n - 1; i++) {
        if ((i % 2 == 0 && arr[i] < arr[i + 1]) || (i % 2 != 0 && arr[i] > arr[i + 1])) {
            int temp = arr[i];
            arr[i] = arr[i + 1];
            arr[i + 1] = temp;
        }
    }
    printf("Wave sorted array: ");
    for (int i = 0; i < n; i++) {
        printf("%d ", arr[i]);
    }
    return 0;
}
```