BubbleSort in C

Compile the following function into assembly using ***MIPS*** assembly and regular conventions of the MIP architecture for procedure calls, the return value must be the number of swaps performed during the sort operation. Use the MARS MIPS simulator to verify your solution by running the program on the following sample array:
{ 9,8,6,5,1,2,3,4 }

```
1.      int Sort(int a[], int n) {
2.      int i,j;
3.      int iMin;
4.      int swapCount = 0;
5.
6.      for (j = 0; j < n-1; j++) {
7.          /* find the min element in the unsorted a[j .. n-1] */
8.
9.          /* assume the min is the first element */
10.         iMin = j;
11.         /* test against elements after j to find the smallest */
12.         for ( i = j+1; i < n; i++) {
13.             /* if this element is less, it is the new minimum */
14.             if (a[i] < a[iMin]) {
15.                 /* found new minimum; remember its index */
16.                 iMin = i;
17.             }
18.         }
19.
20.         if(iMin != j) {
21.             swap(a, j, iMin);
22.             swapCount++;
23.         }
24.     return swapCount;
25.     }
```