

```

#include <iostream>
#include <mpi.h>
#include <vector>

int main(int argc, char** argv) {
    MPI_Init(&argc, &argv);

    int world_size;
    MPI_Comm_size(MPI_COMM_WORLD, &world_size);

    int my_rank;
    MPI_Comm_rank(MPI_COMM_WORLD, &my_rank);

    char processor_name[MPI_MAX_PROCESSOR_NAME];
    int name_len;
    MPI_Get_processor_name(processor_name, &name_len);

    std::cout << "Process " << my_rank << " of " << world_size
          << " is running on machine: " << processor_name << std::endl;

    MPI_Finalize();

    return 0;
}

```





