

Pseudocode for sender.cpp

sender.cpp

//Function to initialize the shared memory and message queue

initialize(share memory id, message queue id, shared memory pointer) {

 Create a key from a file

 If failed to generate key

 Generate an error message

 Initialize the shared memory

 If the shared memory was not created

 Generate an error message

 Attach to shared Memory

 If failed to attach to share memory

 Generate an error message

 Initialize message queue

 If failed to initialize/connect to message queue

 Generate error message

}

//Clean up resources

cleanup(shared memory id, message queue id, share memory pointer) {

 deallocate memory

}

```
send(file name) {  
    Open the file for reading {  
  
        If the file failed to open  
            Generate an error  
  
        Read the entire file  
            If nothing was read  
                Generate an error  
  
        Pass Message to the message queue  
  
        If the connection to the message queue was not established while reading  
            Generate an error  
  
        Check to see if the message was received by the receiver  
  
        If the message was not received  
            Generate an error  
    }  
    Send message to message queue that sending is complete  
  
    If message was not able to be sent/received  
        Generate an error  
    Close file  
}
```

```
main(argc, file name) {  
    Check to make sure two arguments  
        Otherwise generate and error  
  
    Connect to the shared memory and message queue  
  
    Send the file  
  
    Cleanup resources  
}
```