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## README - quest.c

### Electrical Subsystem

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#### main()

**Code author:** Dhruv Shah

**Created on:** 13/03/2021

**Last modified:** 13/06/2021

**Reviewed by:** None

**Description:** This function takes the dimensions i.e number of rows and columns of the input csv file as well as the path to the csv file. It then calls the "read\_csv()" function to prepare the data variable

**Input parameters:** This file has to be called after compiling as shown  
./quest.exe 3 10 "/Quest/test\_cases/6.csv"

#### Quest ()

**Code author:** Dhruv Shah

**Created on:** 13/03/2021

**Last modified:** 13/06/2021

**Reviewed by:** None

**Description:** This function implements the quest algorithm to give the attitude in quaternion representation. The matrix operations require the use of another file "structures.c"

**Input parameters:**

1. **data** : (double \*\*) - This 2D array ( $3 \times 2n$ , where  $n$  are the number of stars matched) contains the all the input vectors for the quest algorithm.

**Output:** The output is a quaternion representing the attitude (4 elements)