**How does your program work?**

The interface was modified to check is the infrared sensor, to locate the docking station. The wall following behavior was then modified to check for the docking station and drive the robot into it.

**What design decisions did you make? Describe your method carefully.**

Once the infrared sensors were activated the Roomba would turn slightly depending on the characters each sensor would return. The robot will detect if it is docked and then play a short song. At first, we were using too low of a frequency, so it was hard to hear. We tweaked the song to be higher pitched and the notes to play a little longer.

**Does your program actually work? How well? If it doesn’t work, can you tell why not?**

Yes, the robot follows the wall until it senses the docking station. It then starts to dock itself and plays four notes. If we were to move the docking station the Roomba changes course to the new location. During testing, we had the occasional problem of the robot sensing the docking station through or over the wall.

**What partial successes did you have that deserve partial credit?**

The robot completes every task assigned. Its movement is a little jerky and that could probably be improved but we were unsure how.

**List the names of each person that worked on the project along with their contributions to the final result.**

Franco Godoy worked on task 1 and task 2.

Jeffrey Knoll worked on task 1 and task 2.

Kaitlyn Ash worked on task 2 and wrote the report.

Noah Wartzack wrote the readme.