Team 3 Consolidation Report

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Structure

The following modules were consolidated on the bases of (1)**Completness** of functionality. (2)The **approach** to the underlying problem (3)**Implementation** (simple and understandable code).

- 1. Omni Velocity Controller
- 2. Wallfollower
- 3. Bug Brain

Omni Velocity Controller

Completeness:

| Task | Ali | Morillo |
|------------------------|-----|-----------------|
| Vehicle drives in a | Yes | Curve Path |
| straight line to goal | | |
| Combination of linear | Yes | Yes |
| and angular motion | | |
| Robot decreases speed | Yes | based on dis- |
| when its near the goal | | tance(not good) |

Approach:

Morillo approch achives all tasks.

Implementation:

Morillo has good documentation and understandable code.



Wall Follower

Completeness:

| Task | Ali | Morillo |
|---------------------------|-----|---------|
| Robot is able to follow a | Yes | Yes |
| straight wall | | |
| Robot can also han- | No | Yes |
| dle convex and concave | | |
| curves | | |
| Variable distance to wall | No | Yes |
| Switchable right/left | Yes | Yes |
| wallfollowing mode | | |

Approach:

Morillo approch achives all tasks.

Implementation:

Morillo's implementation does not fail in test scenarios.



Bug Brain

Completeness:

| Task | Ali | Morillo |
|--------------------------|-----|---------|
| Avoids simple obstacles | Yes | Yes |
| Avoids advanced obsta- | Yes | Yes |
| cles | | |
| Detects if goal is un- | Yes | Yes |
| reachable | | |
| Checks on which side of | Yes | Yes |
| the wall the obstacle is | | |

Approach:

Morillo's and Ali's approch achives all tasks.

Implementation:

Ali's implementation does not fail in any test scenarios and has a simpler implementation.

