

1. Replace Temp With Query

- File Names
 - Motion_handler_explore.cc
- Changed Methods
 - void MotionHandlerFear::UpdateVelocity(...) in motion_handler_explore.cc
 - line 25-50
- Added Methods: (For both class)
 - double LeftSpeedExplore(double lt_right_reading);
 - line 57-59
 - double RightSpeedExplore(double lt_left_reading);
 - line 61-63
 - double LeftSpeedAgressive(double fd_right_reading);
 - line 65-67
 - double RightSpeedAgressive(double fd_left_reading);
 - line 69-71
 - double LeftSpeedHungry(double lt_right_reading, double, fd_right_reading);
 - line 73-77
 - double RightSpeedHungry(double lt_left_reading, double fd_left_reading);
 - line 79-83
- Temporary variable :
 - double speed_l, double speed_r ;
 - line 31,32
 - For refactoring, I add some new methods to calculate the speed of each wheel for different state of the robot (ie. hungry, aggressive, explore), which are listed above.
- Explanation

The two temp variables, speed_l and speed_r , reference multiple times and hold the result of the left wheel speed and right wheel speed respectively. Thus I replace speed_l and speed_r with Query. As we know, robot of different status (ie. hungry, no hungry, very hungry) has different motion, which means we need build different formula to calculate the speed for different status. For refactoring, I create several functions by putting the relative formula into the function and call those functions in UpdateVelocity() to get relative velocity, instead of calculating the left wheel speed and the right wheel speed , speed_r directly by hardcoding the formula of different status in the UpdateVelocity() function. The new functions specifically calculate the speed of relative wheel according to the status of the robot.