

Link to the Video: [https://www.youtube.com/watch?v=0W\\_WbFadhWI](https://www.youtube.com/watch?v=0W_WbFadhWI)

1. The Law control law used to implement the tasks:

- I used the control law of PID. The reason to choose this control law was that it was easier to understand and implement and didn't require a model. Also, it was already explained in the assignment.
- I had to make some changes in the mathematical equation of the PID Control, majorly I didn't need some calculations, so I didn't use them

2. I have used two tasks to implement this code:

1. The first one being, (Task: Move Forward): I chose it to name Move forward because that was the primary objective of the task, to make the ringo go forward, essentially more than a foot. Since, the requirement of the square was more than 1 ft x 1 ft.
  - i. I used the Ringo Hardware (Motors) function. I passed the speed values to the left and right motor and set a delay time, for till when I wanted the ringo to go.
  - ii. I also, used the same Motors implementation to make the ringo stop when it's travelled more than a foot. I passed 0's as the speed arguments for the motor.
  - iii. I used a delay function to make it wait a bit until I passed on the next task. This task is periodic
2. The Second one being, (Task: Turn Right): I chose it to name Turn Right because that was the primary objective of the task, to make the ringo turn right to essentially complete a square of the requirement 1 ft x 1 ft.
  - i. I used the Ringo Hardware (Motors) function. I passed different speed values to the left and right motor. The speed of the left motor was more than the right motor to accomplish the turn.
  - ii. I set a delay time to have the ringo make a successful turn, the delay time had to be perfect in order to cut the motors before the ringo turned more than a right angle.
  - iii. As soon as the turn is made 0's is passed as speed values to the motors to stop them from turning more.
  - iv. A delay function was used to wait a bit until passing it again to the next task. This task is periodic