Appendix B

December 17, 2020

Plot of task 1. Controller parameters is stated in the figure text to each figure.

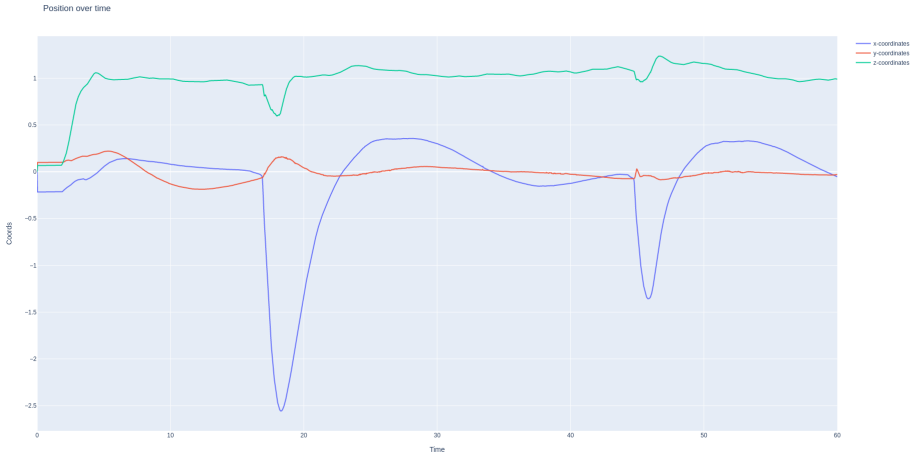

Figure 1: x, y and z coordinates of the UAV in the hovering scenario. (Kp = 0.1, Ki = 0.01, Kd = 0.1)

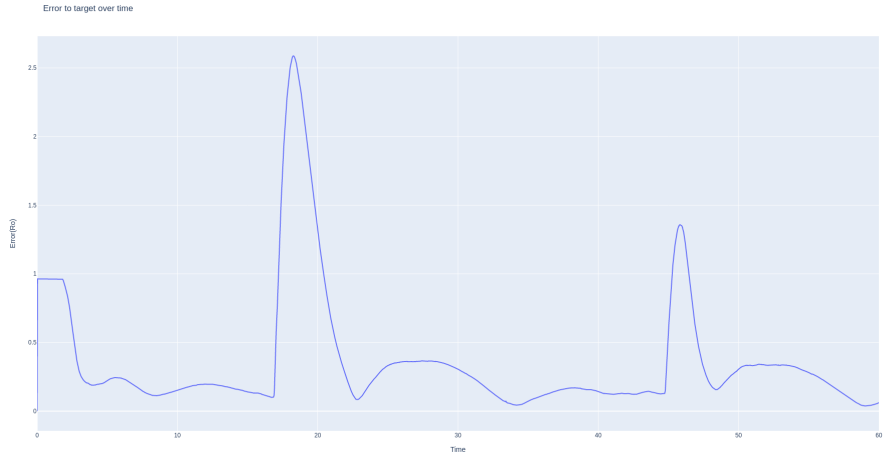

Figure 2: Error(distance) to target(0,0,1). (Kp = 0.1, Ki = 0.01, Kd = 0.1)

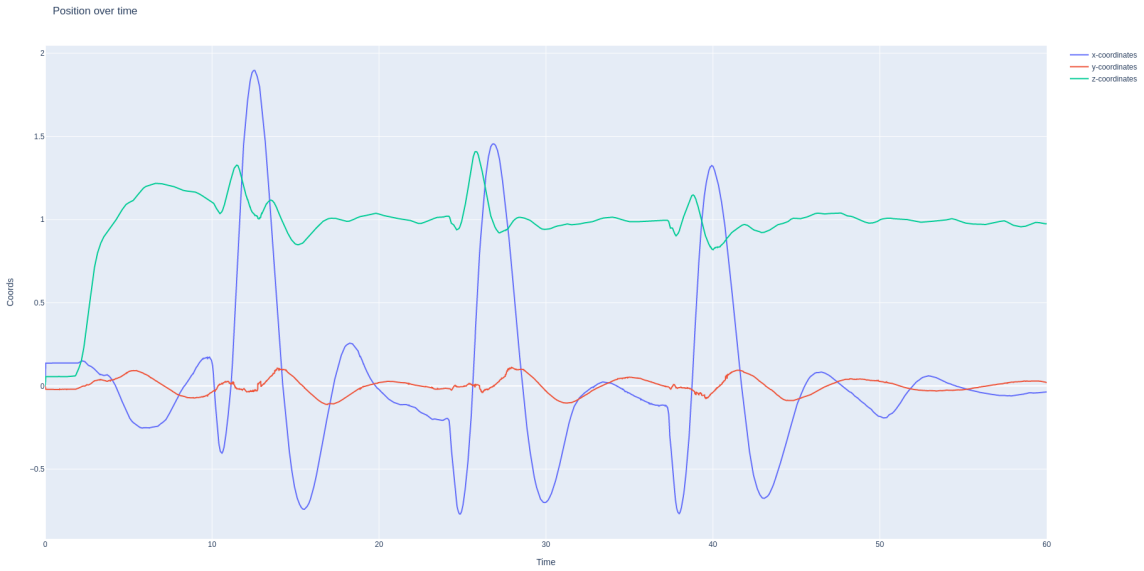

Figure 3: x, y and z coordinates of the UAV in the hovering scenario. (Kp = 0.3, Ki = 0.01, Kd = 0.1)

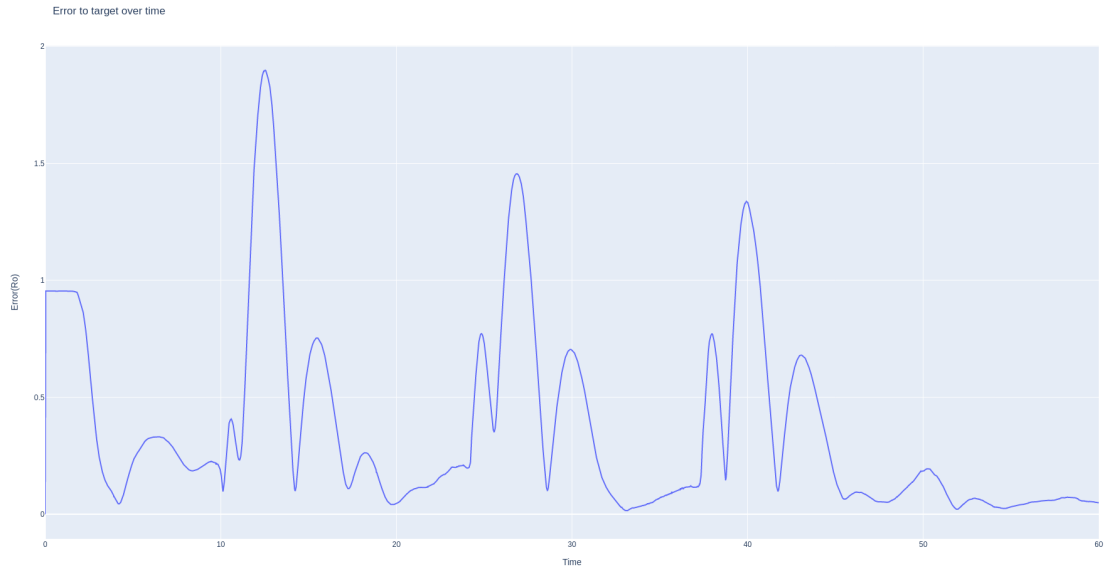

Figure 4: Error(distance) to target(0,0,1). (Kp = 0.3, Ki = 0.01, Kd = 0.1)

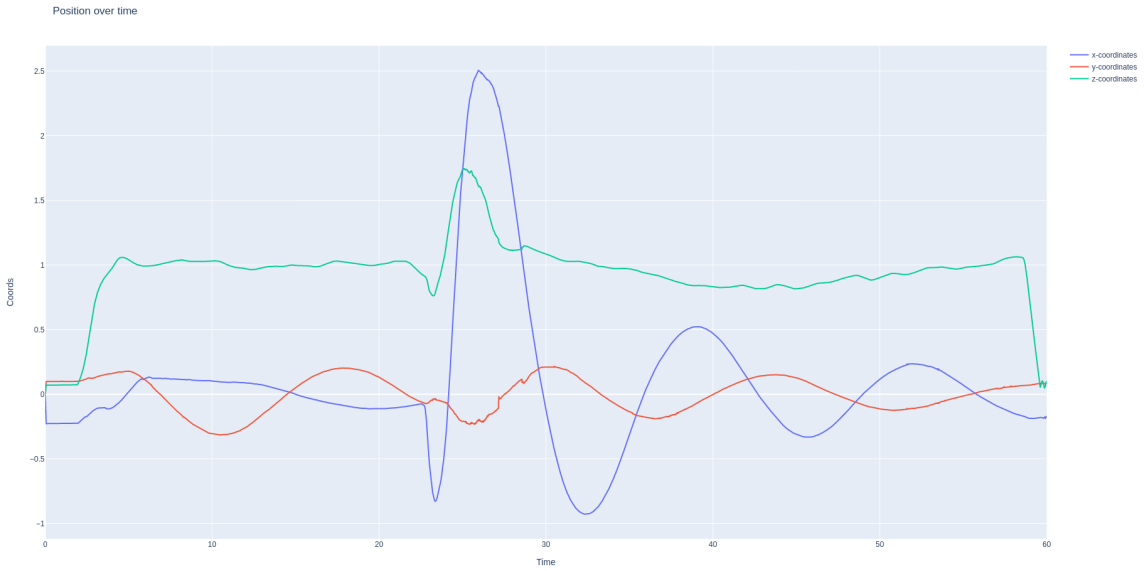

Figure 5: x, y and z coordinates of the UAV in the hovering scenario. (Kp = 0.1, Ki = 0.03, Kd = 0.1)

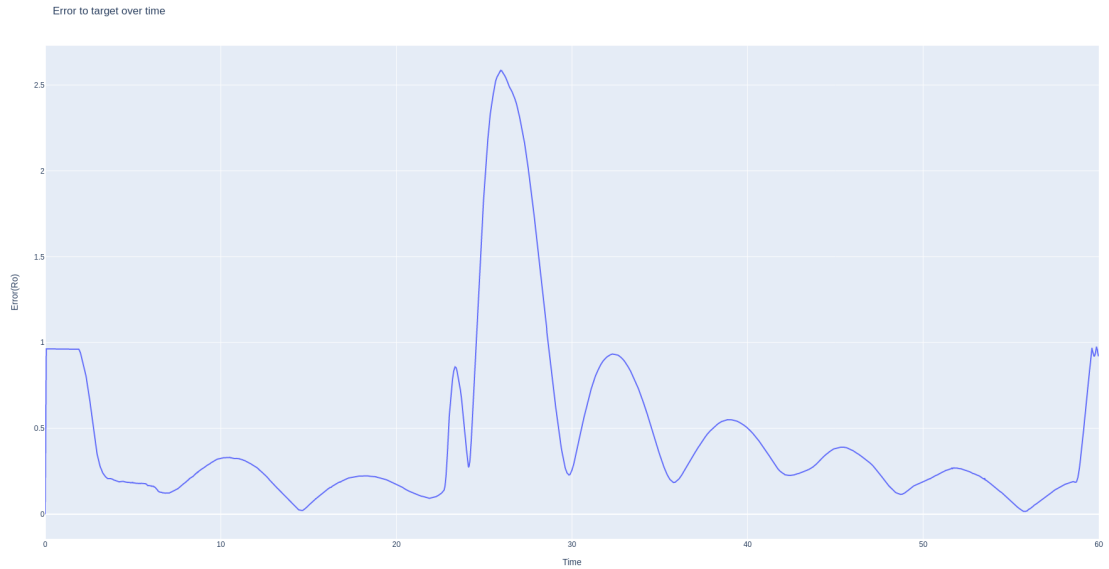

Figure 6: Error(distance) to target(0,0,1). (Kp = 0.1, Ki = 0.03, Kd = 0.1)

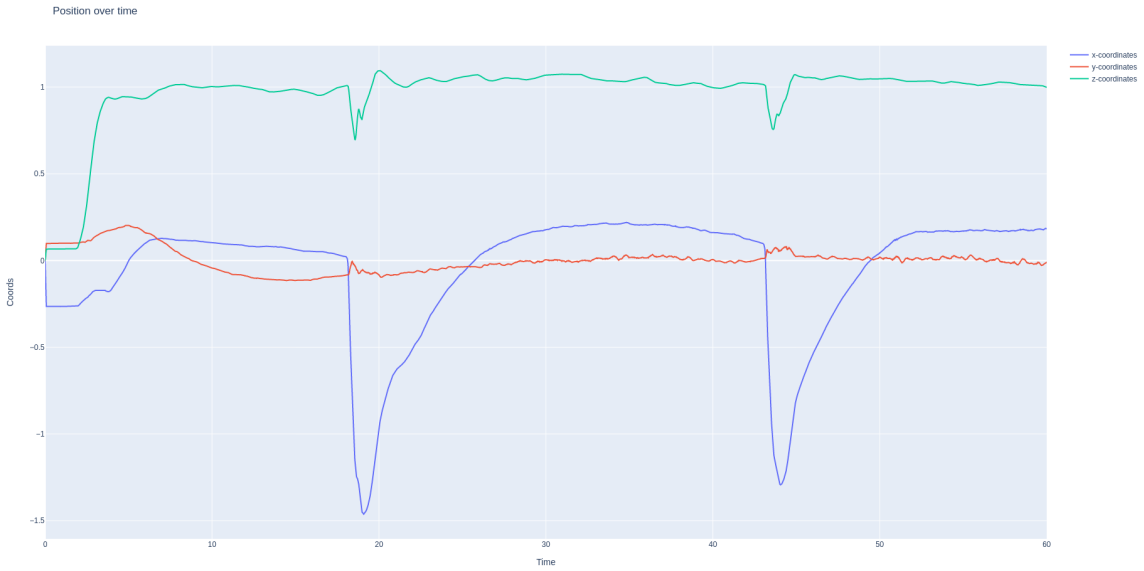

Figure 7: x, y and z coordinates of the UAV in the hovering scenario. (Kp = 0.1, Ki = 0.01, Kd = 0.3)

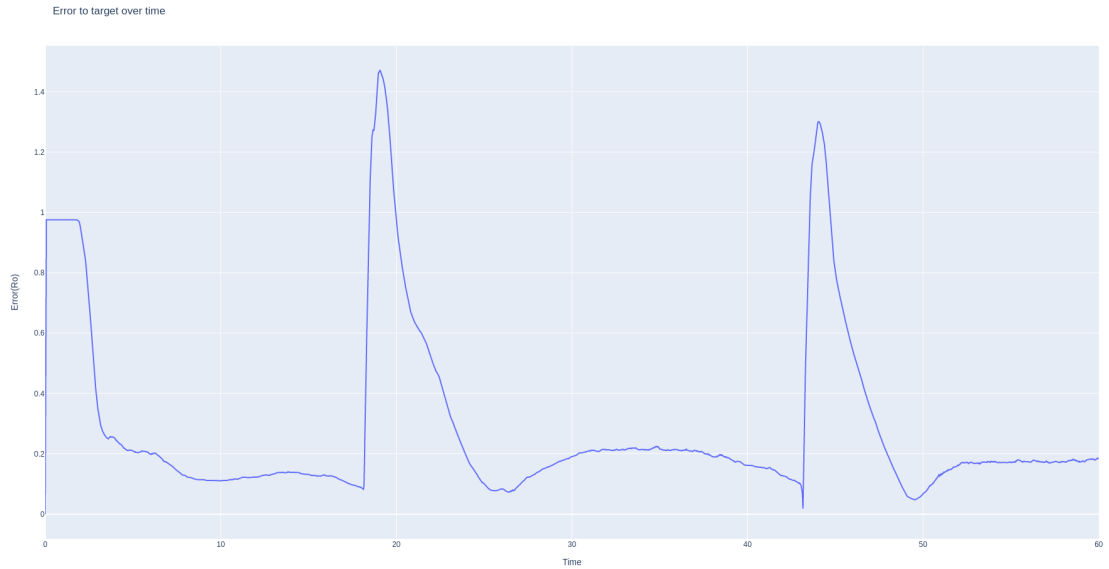

Figure 8: Error(distance) to target(0,0,1). (Kp = 0.1, Ki = 0.01, Kd = 0.3)

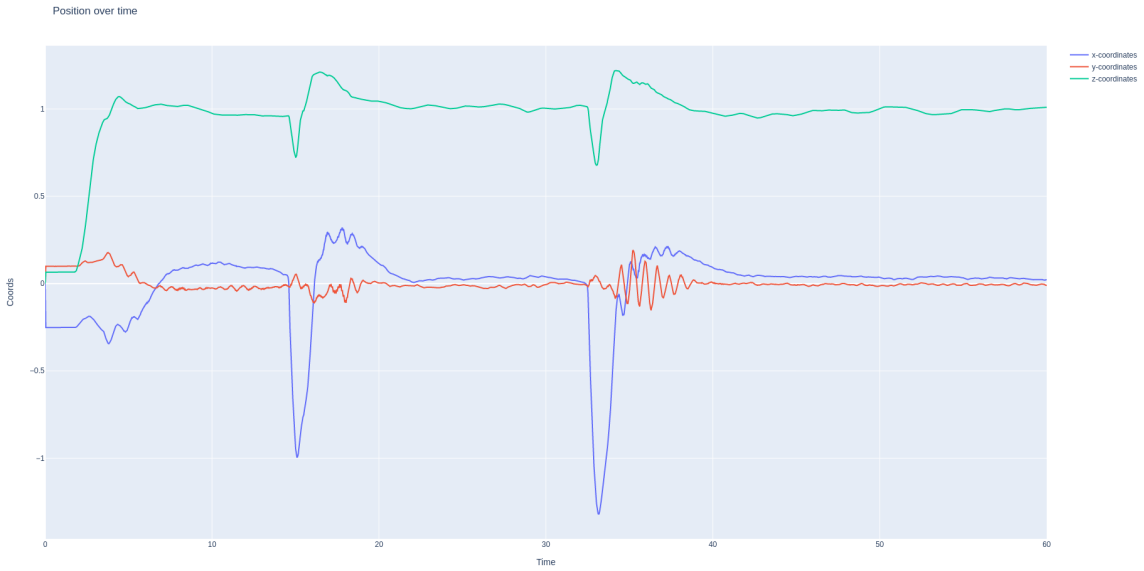

Figure 9: x, y and z coordinates of the UAV in the hovering scenario. (Kp = 0.4, Ki = 0.02, Kd = 0.4)

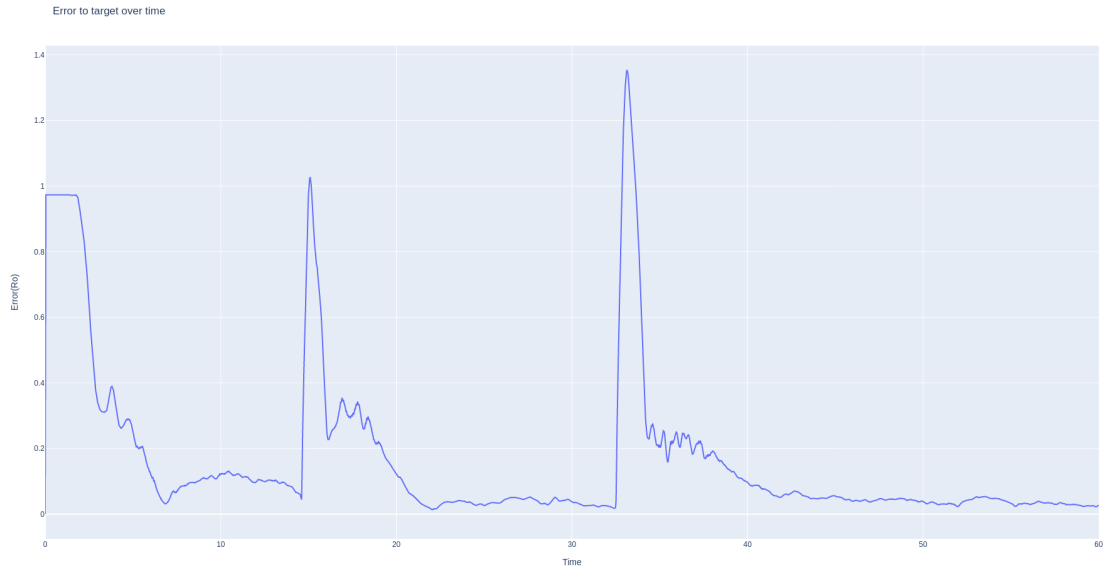

Figure 10: Error(distance) to target(0,0,1). (Kp = 0.4, Ki = 0.02, Kd = 0.4)

Plots of task 2. Controller parameters is stated in the figure text to each figure.

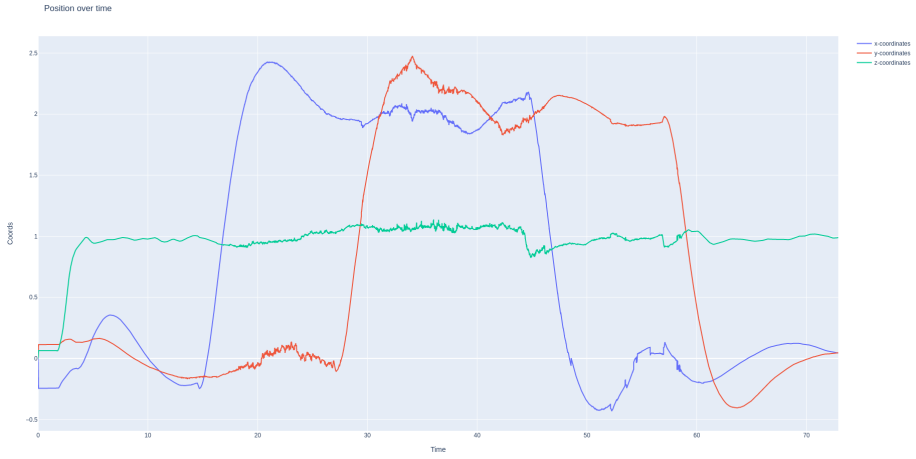

Figure 11: x, y and z coordinates of the UAV when going to different waypoints. (Kp = 0.1, Ki = 0.01, Kd = 0.1)

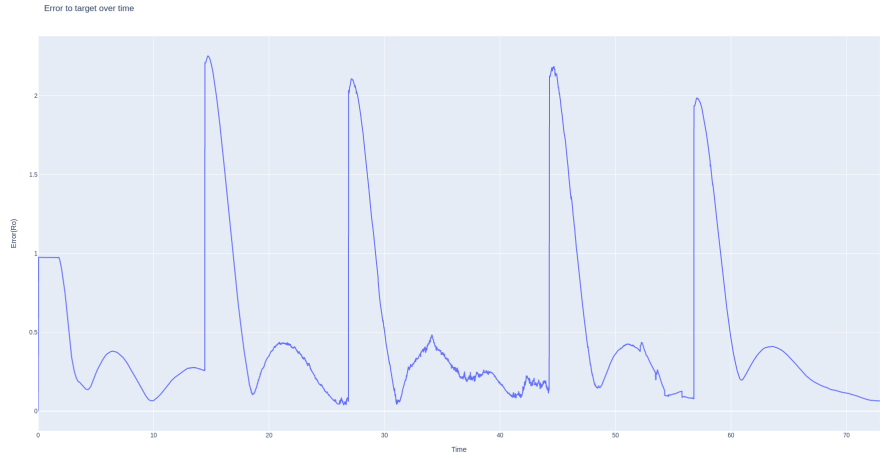

Figure 12: Error(distance) to current waypoint. (Kp = 0.1, Ki = 0.01, Kd = 0.1)

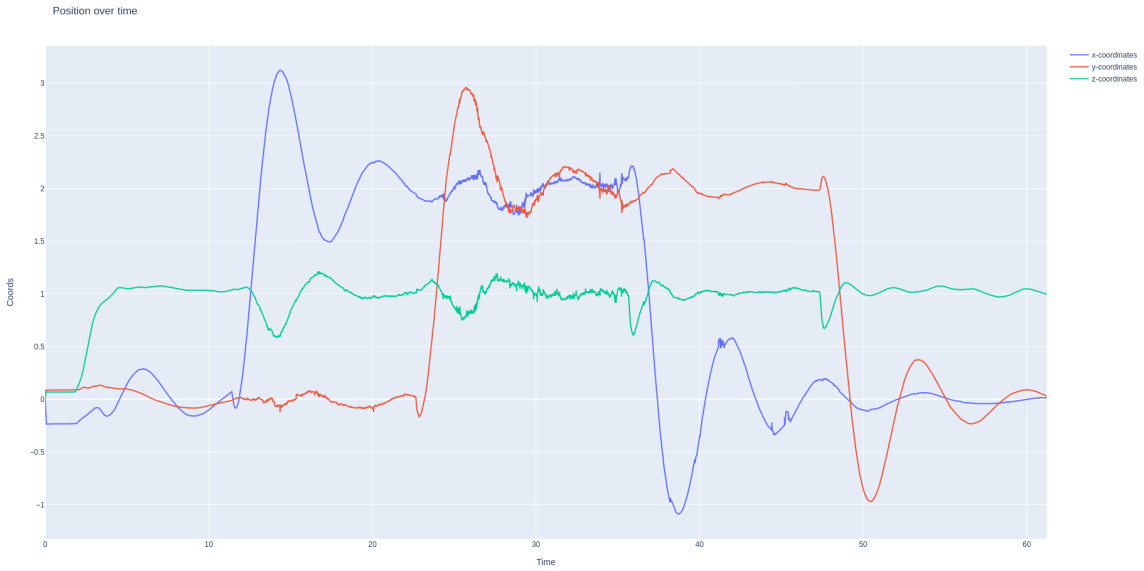

Figure 13: x, y and z coordinates of the UAV when going to different waypoints. (Kp = 0.3, Ki = 0.01, Kd = 0.1)

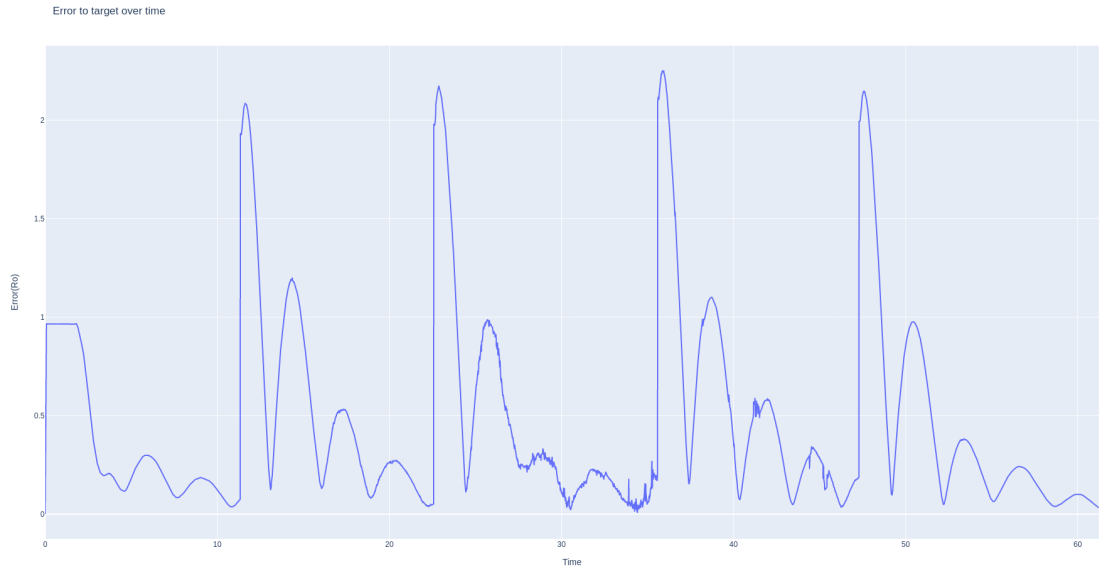

Figure 14: Error(distance) to current waypoint. (Kp = 0.3, Ki = 0.01, Kd = 0.1)

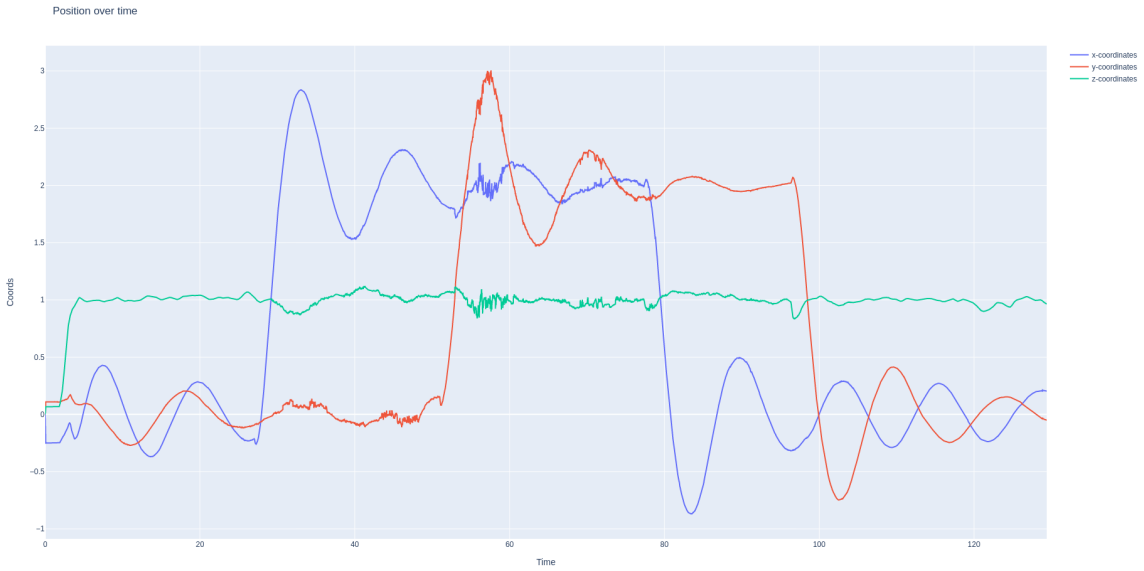

Figure 15: x, y and z coordinates of the UAV when going to different waypoints. (Kp = 0.1, Ki = 0.03, Kd = 0.1)

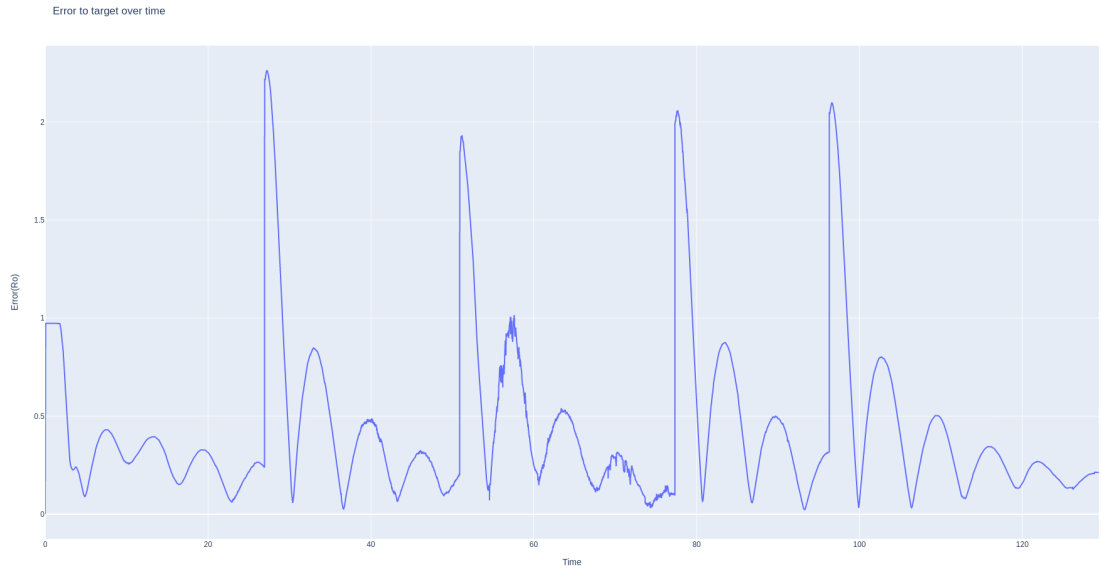

Figure 16: Error(distance) to current waypoint. (Kp = 0.1, Ki = 0.03, Kd = 0.1)

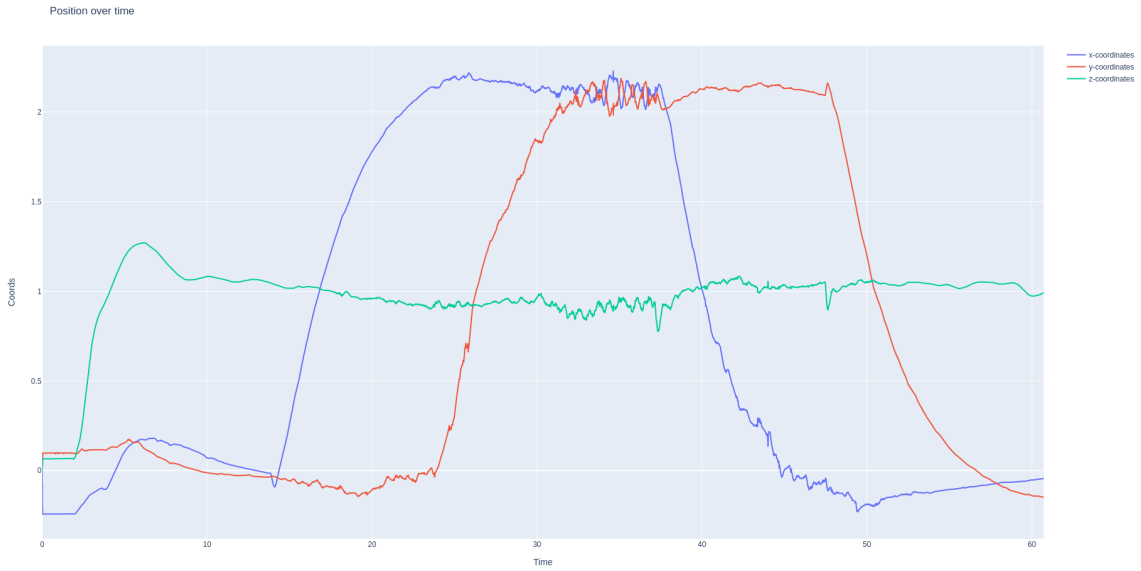

Figure 17: x, y and z coordinates of the UAV when going to different waypoints. (Kp = 0.1, Ki = 0.01, Kd = 0.3)

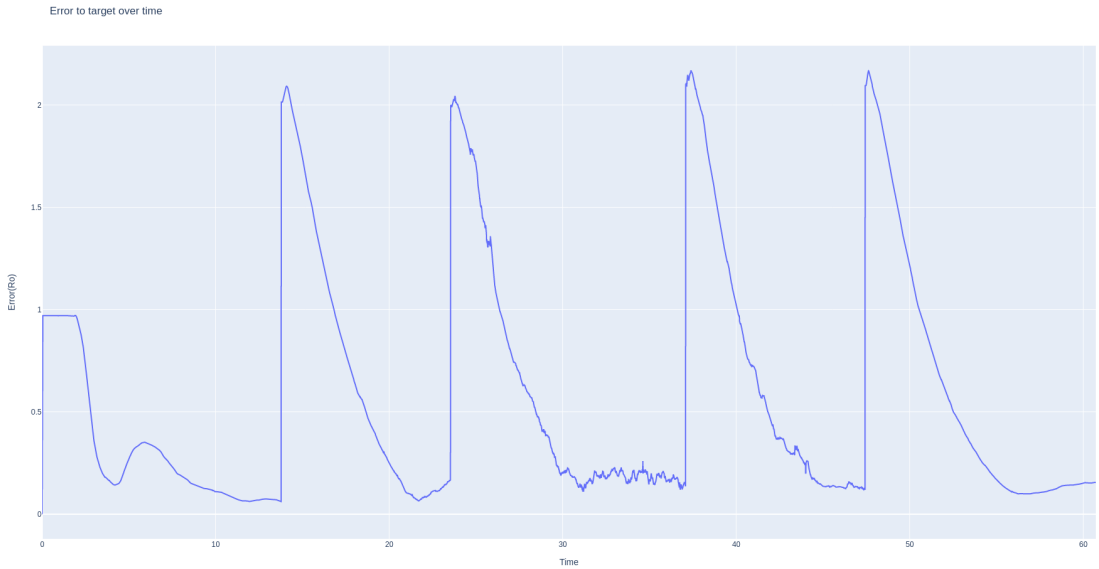

Figure 18: Error(distance) to current waypoint. (Kp = 0.1, Ki = 0.01, Kd = 0.3)

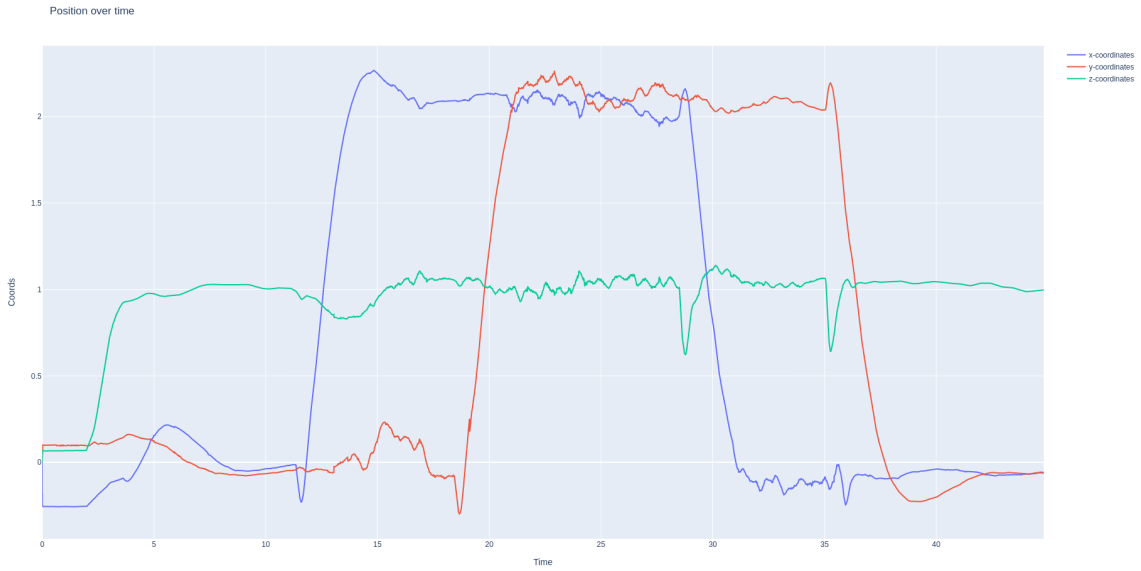

Figure 19: x, y and z coordinates of the UAV when going to different waypoints. (Kp = 0.4, Ki = 0.02, Kd = 0.4)

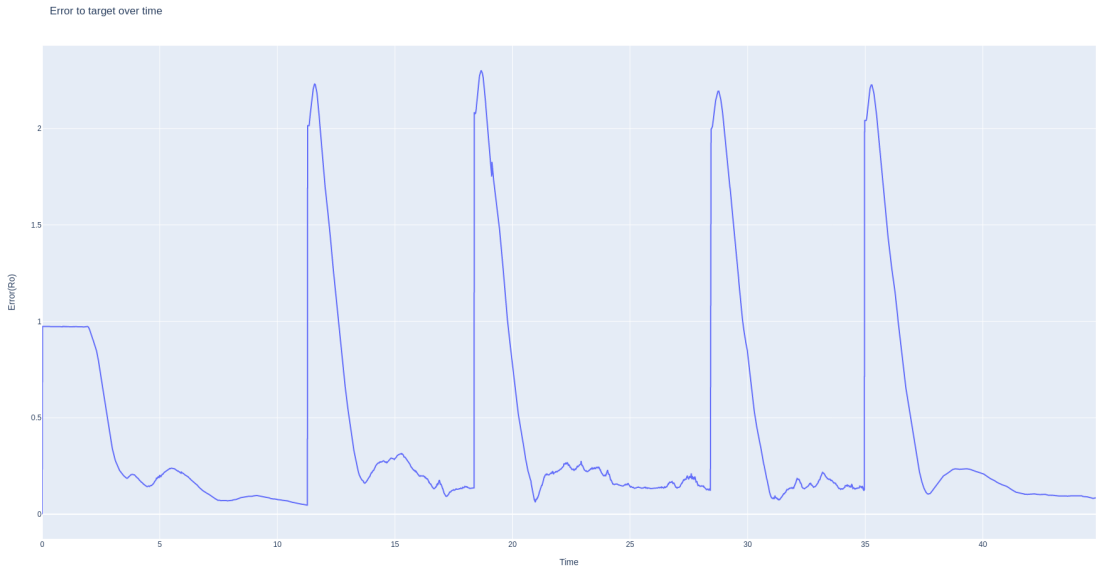

Figure 20: Error(distance) to current waypoint. (Kp = 0.4, Ki = 0.02, Kd = 0.4)