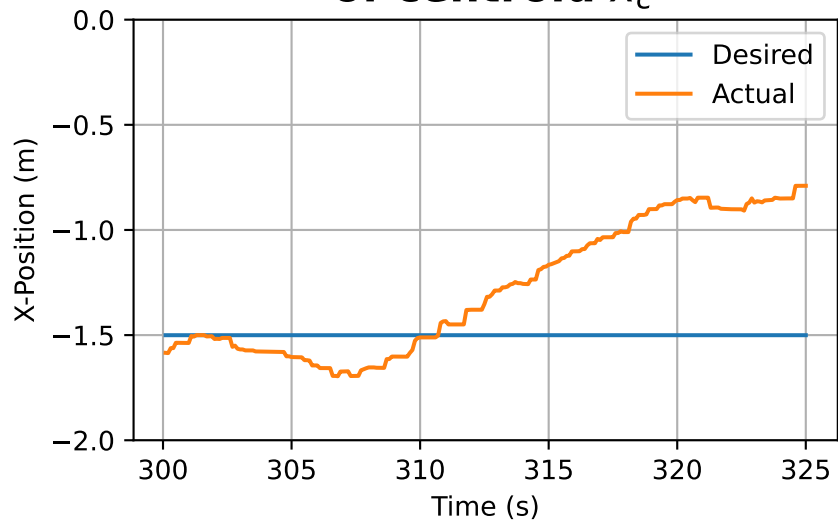
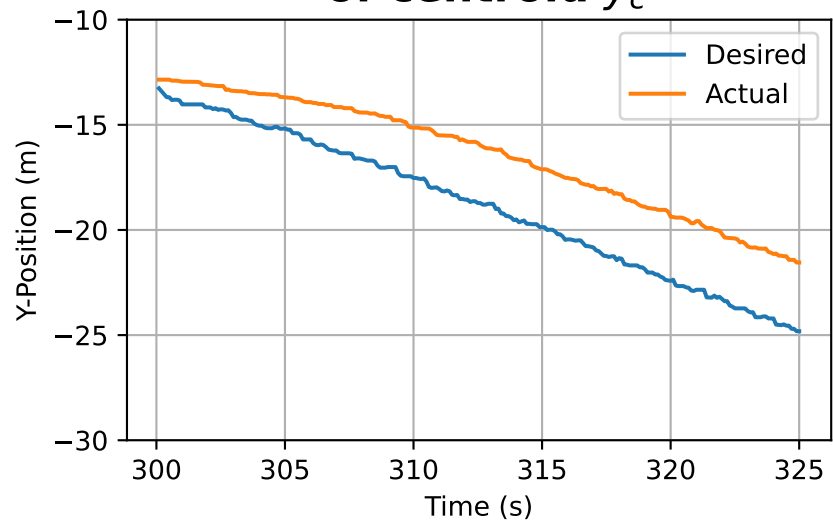


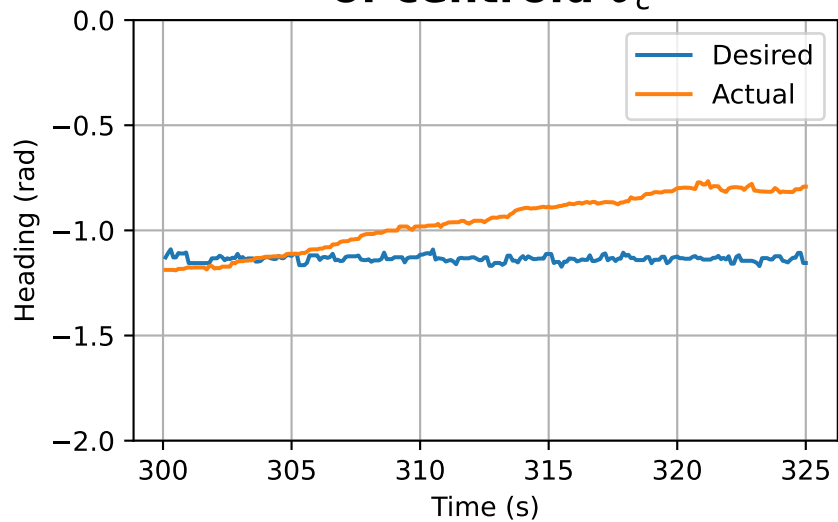
**X-position  
of centroid  $x_c$**



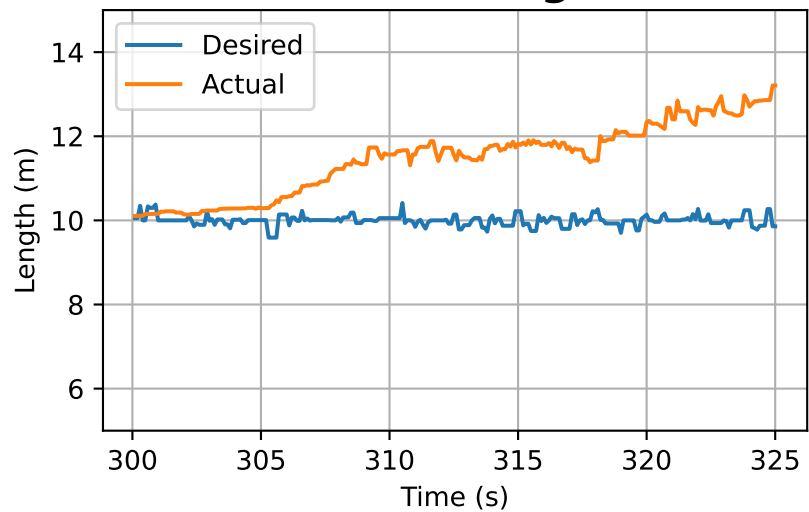
**Y-position  
of centroid  $y_c$**



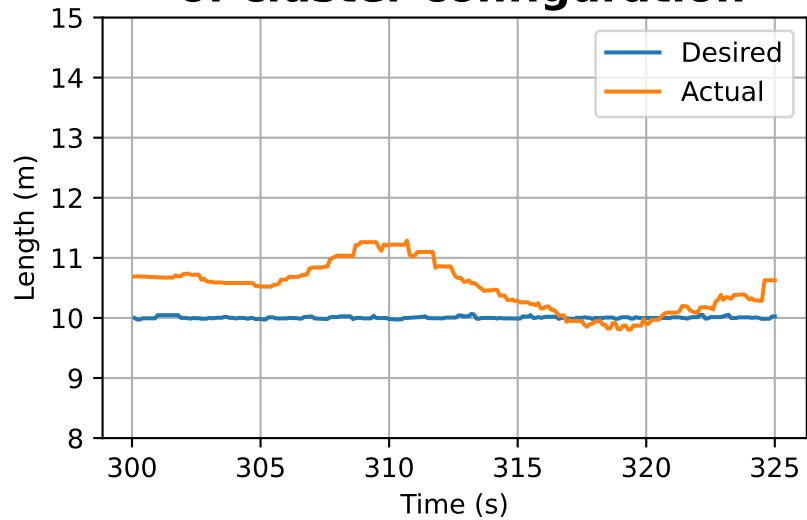
**Heading  
of centroid  $\theta_c$**



**$p$ -length  
of cluster configuration**



**$q$ -length  
of cluster configuration**



**$\beta$ -angle  
of cluster configuration**

