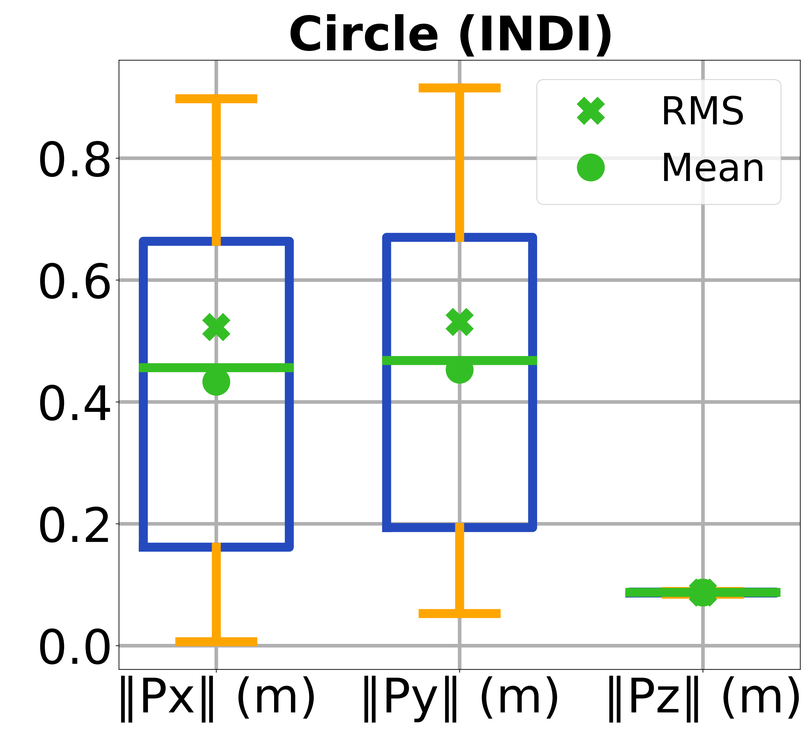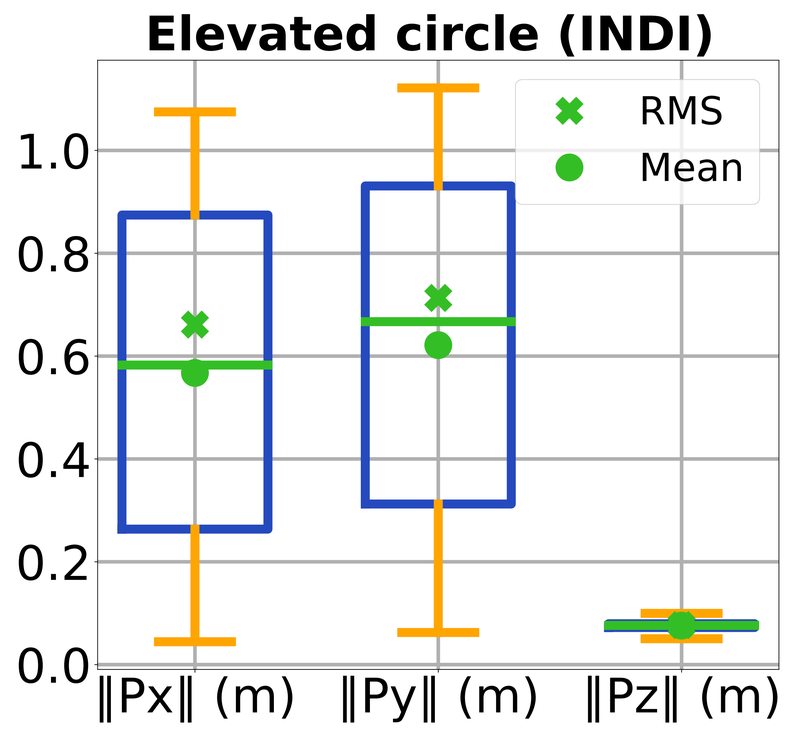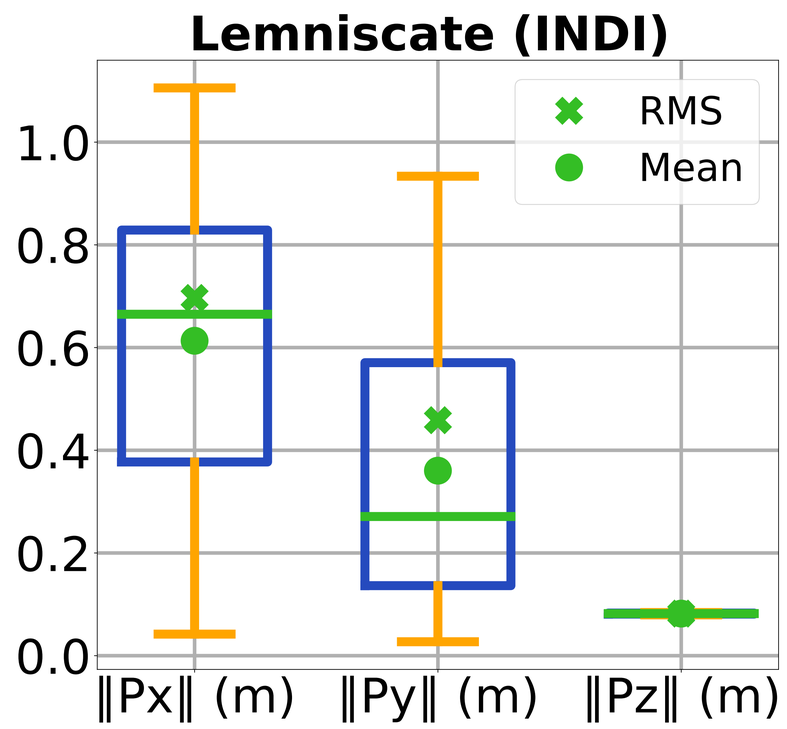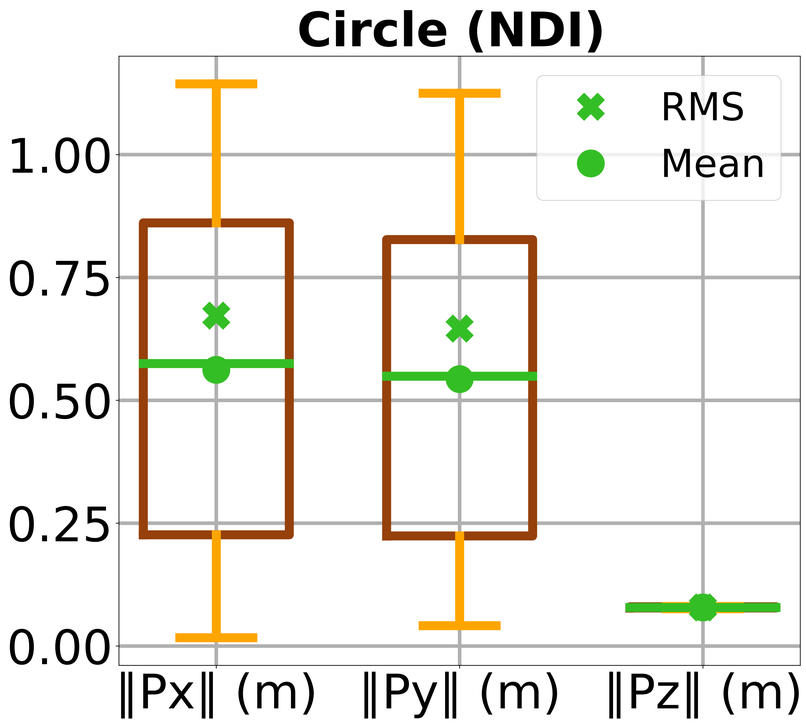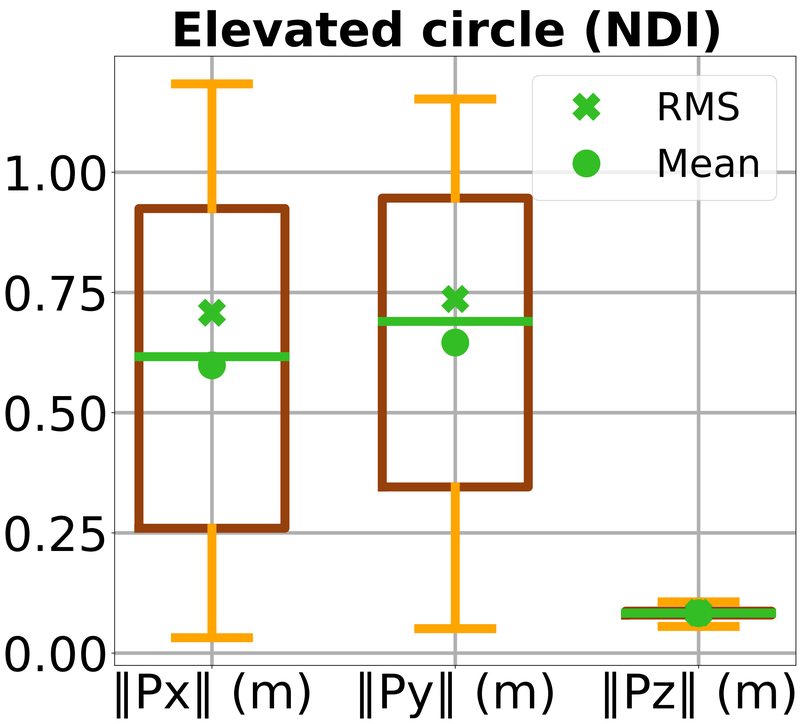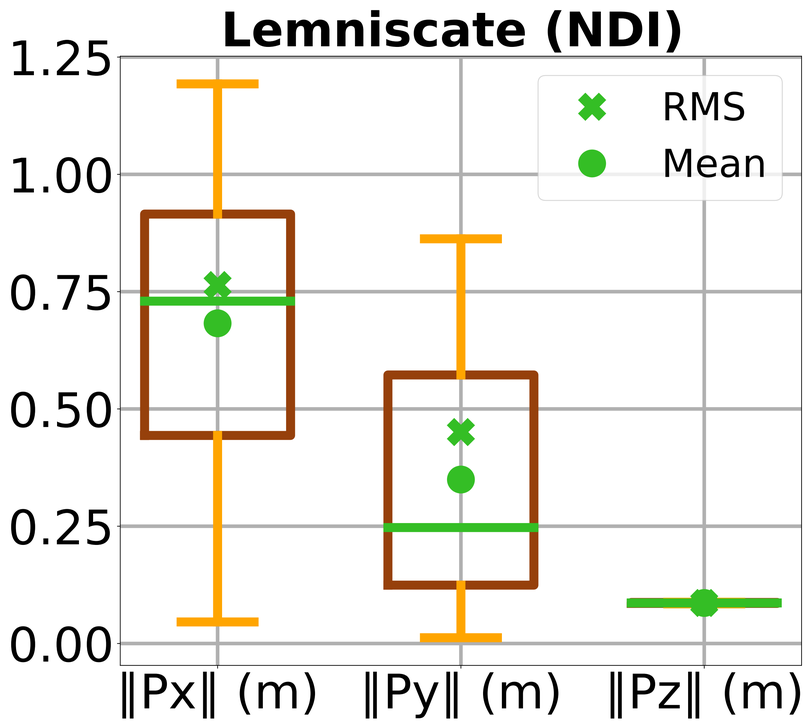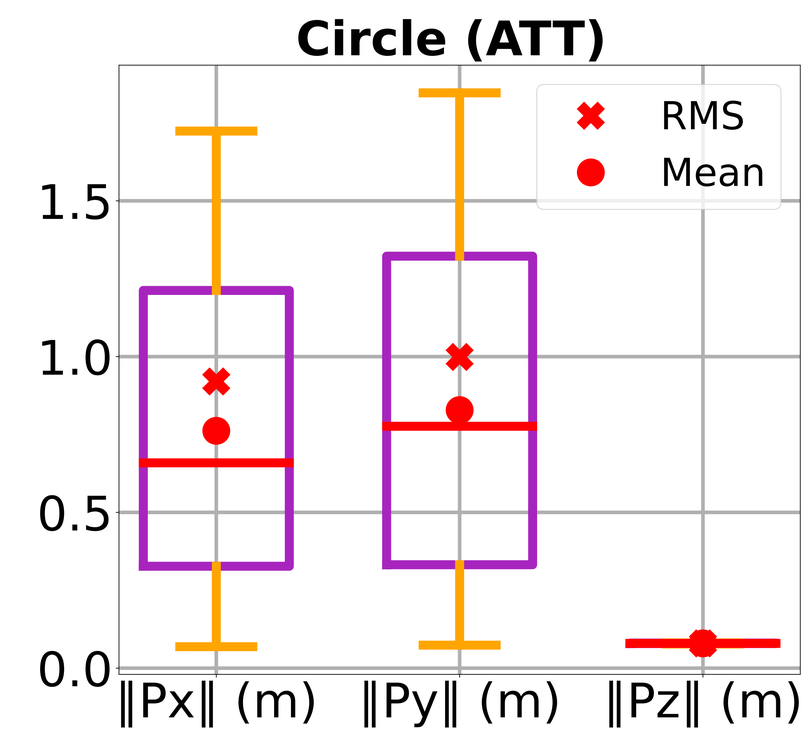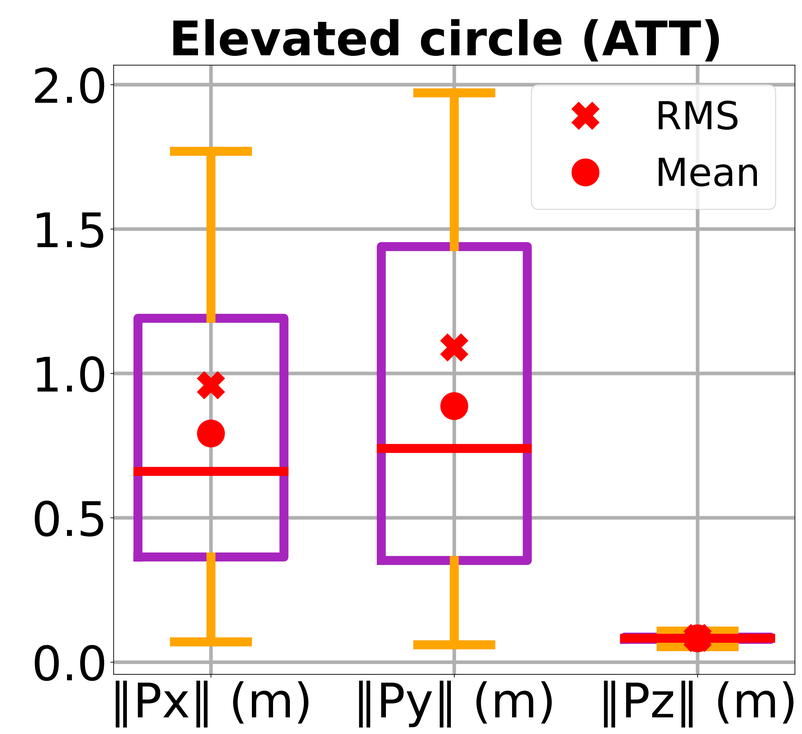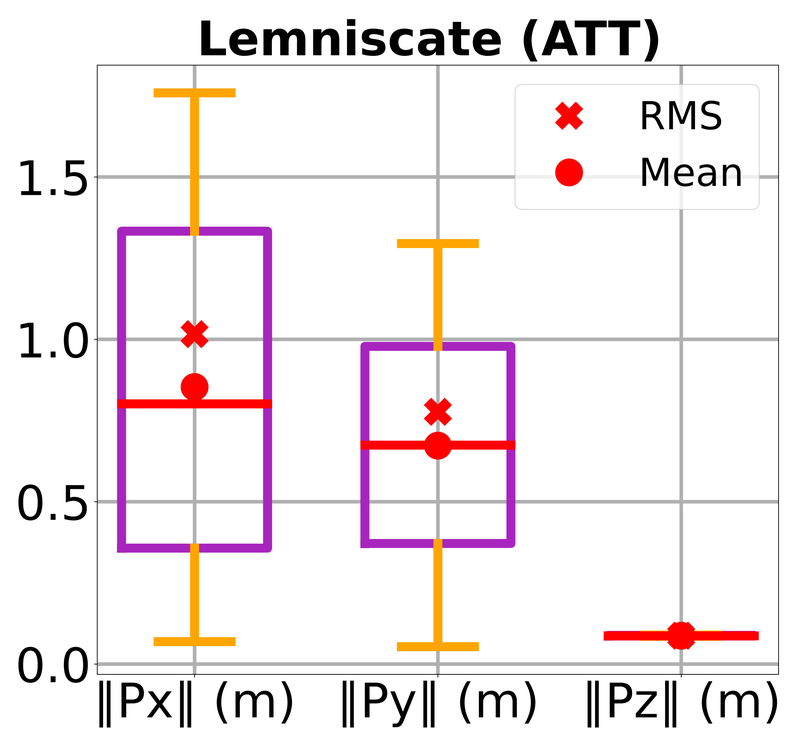Controller tracking performance using short-wing (L2 norm error(m))