

Symbol	Description	Default Value
α	Total Privacy Budget	1
Q	Process Noise	10^5
R	Gaussian Measurement Noise	10^6
N	Number of Particles	10^3
(C_p, C_i, C_d)	Control Gains	(0.9, 0.1, 0)
T_i	Integral Time Window	5
(θ, ξ)	Interval Adjustment Params	(10, 0.1)