

# Kalman GPS Jupyter Notebook Classes

Class: GetPseudoRange		Inputs/Outputs
	Constructor ( ):	(0) Pseudorange std. dev. (default 0) (1) Pseudo range bias CDt (default 0) (2) Number of satellites in view (default 4)
	measurement ( ):	(0) User position in ECEF (ndarray) vs time (1) Satellite (SV) position in ECEF (ndarray) vs time
	returns:	none, but USER_SR (ndarray) is filled
Class: GPS_EKF		Inputs/Outputs
	Constructor ( ):	(0) User initial position in ECEF (1) Time step (default 1s) (2) Process model diagonal covariance (3) Clock drift random phase walk (default 36) (4) Clock drift random frequency walk (default 0.01) (5) Pseudorange measurement variance (default 36) (6) Number of satellites in view (default 4)
	update ( )	(0) User position ECEF at time step $k$ (1) Satellite (SV) positions ECEF at time step $k$
	returns:	none, none but all EKF attributes updated