Network

Network(): Void
UpdateNetwork(Vector3 acc, Vector3 ballPos, Vector3 gyroscope)(): Void

ComplementaryFilter

ComplementaryFilter(ATan2Angle accAngle, Gyroscope gyroAngle, ComplementaryFilter previous)(): Void
CalculateAngle(float oldAngle, float gyroAngle, atanAngle)(): float

SensorFusion

SensorFusion(ComplementaryFilter compFilter, Acceleration acc)(): Void
GetAccelerationAdjustYaw(float accelerationY, float accelerationX, float gyroscopeAngle)(): float
GetAccelerationAdjustPitch(float acceleration, float angle)(): float

Variable

Mean: float
Variance: float
Parent: Variable
Previous: Variable

Variable(): Void
Variable(Variable previous, Variable parent): Void
UpdateVariance(): Void
UpdateMean(): Void
MatrixMultiplication(matrix firstMatrix, matrix secondMatrix): matrix
GetCoVarianceMatrix(): matrix

MovingAverage

MovingAverage(MovingAverage previous, SensorFusion parent)(): Void
MovingAverage(float variance, float mean)(): Void

CorrectedMovingAverage

CorrectedMovingAverage(MovingAverage parent): Void
CorrectedMOvingAverage(Network network)(): Void
GetAccelerationDirection(MovingAverage parent): MovingAverage

Velocity

Velocity(Velocity previous, CorrectedMovingAverage parent)(): Void
Velocity(float variance, float mean)(): Void
UpdateConstantVelocityCount(): Void

Acceleration

Acceleration(Vector3 acc)(): Void

Gyroscope

Gyroscope(Vector3 angles)(): Void

ATan2Angle

ATan2Angle(Acceleration acc)(): Void

Position

Position(Position previous, Velocity parent)(): Void
Position(float variance, float mean)(): Void
GetCoVarianceMatrix(): matrix

float

matrix

Vector3

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