

Arcball – Implemented Functions

Note: All work with degrees when using angles, both in input and output.

EulerAnglesToRotMat

Receives the three Euler Angles (pitch, roll, yaw) and operates them into a Rotation Matrix which the function returns.

GetCrossMat

Receives a vector and returns its Cross Matrix.

GetRotAngles

Receives a Rotation Matrix and returns all three encrypted Euler Angles (pitch, roll, yaw).

QuatToRotMat

Receives a Quaternion and returns its encrypted Rotation Matrix.

Rodrigues

Receives a Principal Axis and Euler Angle and using the Rodrigues formula turns them into a Rotation Matrix the function returns.

RotMatToEuler

Receives a Rotation Matrix and returns its encrypted Principal Axis and Euler Angle.

RotMatToQuat

Receives a Rotation Matrix and creates a Quaternion from its data, returning it as well.

RotMatToRotVec

Receives a Rotation Matrix and extracts and returns the encrypted Rotation Vector.

RotVecToEuler

Receives a Rotation Vector and extracts and returns its Principal Euler Axis and Angle.

RotVecToRotMat

Receives a Rotation Vector and transforms it into a Rotation Matrix which the function returns.