TwoArmedRobotSystem

yCoordinates: floatxCoordinates: floatlengthOfFirstArm: floatlengthOfSecondArm: float

-p_x : float -p_y : float

- + <<create>>TwoArmedRobotSystem(lengthOfFirstArm : float,engthOfSecondArm : float)
- + getResidualCostFunction(arrayTheta: float[2]);float[2]
- + getResidualMagnitudeSquared(arrayTheta : float[2]);float
- + jacobianOfResidual(arrayTheta : float[2]);float[2]
- + hessienneOfResidual(arrayTheta: float[2]);float[2]
- + Solutions Visualisation (theta1: float, theta2: float)
- + computeReachableRegion ():float,float
- + computeTrajectory() : float[*],float[*]
- + DisplayIsoValues(theDesiredPointIndex : integer,theta1Min: float,theta2Min:float ,nlso: integer)

MinimaToolBox

- TwoArmedRobotSystem:TwoArmedRobotSystem -accuracy : float
- + <<create>>MinimaToolBox(TwoArmedRobotSystem:TwoArmedRobotSystem,accuracy : float)
- + getMinimaViaRoot(): float[*],float[*]
- + getMinimaViaMinimize() : float[*],float[*]
- + deltaThetaSystem(arrayTheta: float[2]): float[2]
- +getMinimaViaNewtonForOneValue(initialValueArray : float[2], accuracy: float, maxIter: integer):float[2]
- + getMinimaViaNewtonForMultipleValues (initialValueArray: float[2], accuracy: float, maxIter: integer): float[*], float[*],
- +getMinimaViaFixedStepGradForOneValue((initialValueArray: float[2], accuracy: float, maxIter: integer,alpha: float):float[2]
- + getMinimaViaFixedStepGradForMultipleValues ((initialValueArray: float[2], accuracy: float, maxIter: integer, alpha: float): float[*], float[*], float[*]