

```

% Tutorial for Lines

% function VLFL_EXP71

Posesample(29); PS=ans

fourBarposesyntheses(PS,1,[16,1,1]); PS=ans
PSX=PS; % PSX.solut=PSX.solut(1:100:end,:);

Videoquickstart; CPLF=PLaddauxpoints([0 0;40 40],1); fourbarposesearchcouplercurve(PSX,CPLF); Videoquickcloseandopen

PSQ=PS;

CPL=PLaddauxpoints([0 0; 80 0],5); fourbarposesearchcouplercurve(PSQ,CPL); PSN=ans;

SGfigure; PLplot(CPL,'k*- ',2);PSN.CPLE=[]; PLOfFourbarcouplercurve(PSN,1);

```

```

PS =
  struct with fields:

    A: [3×2 double]
    B: [3×2 double]
    CPLM: [4×2 double]
    CPLE: [4×2 double]
    CPLW: [9×2 double]
fourBarposesyntheses: Number of Gridpoints should be: 16
PoseaddGPL: CPLE 1.0 mm Buffer for 16 attachment points
checkfourbarlPoseattachpermutation: Number Effector Grid Points: 16
checkfourbarlPoseattachpermutation: Number Gound Base Grid Points: 16
checkfourbarlPoseattachpermutation: There are 65.5K combinations to check!
checkfourbarlPoseattachpermutation: Shape buffer for the effector is 1.0 and buffer for links is 1.0
checkfourbarlPoseattachpermutation: Constraints to check: ""
checkfourbarlPoseattachpermutation: =====
checkfourbarlPoseattachpermutation: 0.82 seconds/1k, estimated time = 53.99sec!
fourBarposesyntheses: 57122 solution were found using 1-Pose-Synthesis.
Poseplotsolution: Plot a limited selection of 10 of 57122 solutions
PS =
  struct with fields:

    A: [3×2 double]
    B: [3×2 double]
    CPLM: [4×2 double]
    CPLE: [4×2 double]
    CPLW: [9×2 double]
    psel: 1
    GPL: [16×2 double]
    cnstr: ''
    solut: [57122×18 double]
    solutPL0: {57122×1 cell}
fourbarposesearchcouplercurve: Mimimal squared distance sum: [14.4; 14.4; 17.9; 17.9; 26.6; 26.6; 29.8]
ans =
  '/Users/timlueth/Desktop/publishSGPDF_2023-10-03 09_11_35.mp4'
fourbarposesearchcouplercurve: Mimimal squared distance sum: [8.2; 8.2; 8.9; 8.9; 9.3; 9.3; 11.3]

```