```
Problem type appears to be: con
Time for symbolic processing: 1.4529 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                          sum(|constr|)      0.000000001480101872
                                 f(x_k) + sum(|constr|)      3.435021213384247500
                                               f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.343750 sec. Elapsed time: 0.329000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.69727 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146600
                                          sum(|constr|)      0.000000001480163960
                                 f(x_k) + sum(|constr|)      3.435021213384310500
                                               f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.125000 sec. Elapsed time: 0.139000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.59801 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904144800
                                          sum(|constr|)      0.000000001480190794
                                 f(x_k) + sum(|constr|)      3.435021213384335400
                                               f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied
```

```
FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.140625 sec. Elapsed time: 0.141000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.4739 seconds
Starting numeric solver
===== * * * ========================================================================== * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145200
                                        sum(|constr|)      0.000000001480167910
                                f(x_k) + sum(|constr|)     3.435021213384313200
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.140625 sec. Elapsed time: 0.189000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.5313 seconds
Starting numeric solver
===== * * * ========================================================================== * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146100
                                        sum(|constr|)      0.000000001480154102
                                f(x_k) + sum(|constr|)     3.435021213384300300
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.250000 sec. Elapsed time: 0.258000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.44746 seconds
Starting numeric solver
===== * * * ========================================================================== * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480138742
                                f(x_k) + sum(|constr|)     3.435021213384284300
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
```

```
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.093750 sec. Elapsed time: 0.112000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.56698 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145200
                                        sum(|constr|)      0.000000001480192241
                                f(x_k) + sum(|constr|)     3.435021213384337600
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.109375 sec. Elapsed time: 0.112000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.54596 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480169396
                                f(x_k) + sum(|constr|)     3.435021213384315000
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.125000 sec. Elapsed time: 0.115000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.45385 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480169779
                                f(x_k) + sum(|constr|)     3.435021213384315400
                                             f(x_0)     15.000000000000000000
```

```
Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.125000 sec. Elapsed time: 0.154000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.4883 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146100
                                        sum(|constr|)      0.000000001480221855
                                f(x_k) + sum(|constr|)     3.435021213384367800
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.093750 sec. Elapsed time: 0.123000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.64698 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904147000
                                        sum(|constr|)      0.000000001480088432
                                f(x_k) + sum(|constr|)     3.435021213384235500
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.078125 sec. Elapsed time: 0.129000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.57074 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480188925
                                f(x_k) + sum(|constr|)     3.435021213384334500
```

```
                                        f(x_0)     15.000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.156250 sec. Elapsed time: 0.120000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.53386 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904144800
                                     sum(|constr|)      0.000000001480219585
                               f(x_k) + sum(|constr|)   3.435021213384364300
                                        f(x_0)     15.000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.093750 sec. Elapsed time: 0.131000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.54726 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146600
                                     sum(|constr|)      0.000000001480183333
                               f(x_k) + sum(|constr|)   3.435021213384330100
                                        f(x_0)     15.000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.109375 sec. Elapsed time: 0.134000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.47975 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146600
```

```
                                    sum(|constr|)      0.000000001480116582
                               f(x_k) + sum(|constr|)      3.435021213384263000
                                            f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.187500 sec. Elapsed time: 0.123000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.56988 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146600
                                    sum(|constr|)      0.000000001480152411
                               f(x_k) + sum(|constr|)      3.435021213384299000
                                            f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.078125 sec. Elapsed time: 0.117000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.5826 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146100
                                    sum(|constr|)      0.000000001480185353
                               f(x_k) + sum(|constr|)      3.435021213384331400
                                            f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.156250 sec. Elapsed time: 0.130000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.46149 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
```

```
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480203656
                                f(x_k) + sum(|constr|)     3.435021213384349200
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.171875 sec. Elapsed time: 0.184000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.59486 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480173375
                                f(x_k) + sum(|constr|)     3.435021213384319000
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.171875 sec. Elapsed time: 0.174000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.55335 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480140967
                                f(x_k) + sum(|constr|)     3.435021213384286600
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.203125 sec. Elapsed time: 0.190000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.48605 seconds
Starting numeric solver
```

```
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480190905
                                f(x_k) + sum(|constr|)     3.435021213384336700
                                              f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.140625 sec. Elapsed time: 0.161000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.44974 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480152155
                                f(x_k) + sum(|constr|)     3.435021213384297700
                                              f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.109375 sec. Elapsed time: 0.129000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.54617 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480039863
                                f(x_k) + sum(|constr|)     3.435021213384185300
                                              f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.109375 sec. Elapsed time: 0.113000 sec.
Problem type appears to be: con
```

```
Time for symbolic processing: 0.54799 seconds
Starting numeric solver
===== * * * ============================================================================ * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146100
                                        sum(|constr|)      0.000000001480184205
                                f(x_k) + sum(|constr|)     3.435021213384330500
                                              f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.109375 sec. Elapsed time: 0.125000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.45116 seconds
Starting numeric solver
===== * * * ============================================================================ * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146600
                                        sum(|constr|)      0.000000001480272695
                                f(x_k) + sum(|constr|)     3.435021213384419300
                                              f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.140625 sec. Elapsed time: 0.139000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.46679 seconds
Starting numeric solver
===== * * * ============================================================================ * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480087047
                                f(x_k) + sum(|constr|)     3.435021213384232800
                                              f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
```

```
CPU time: 0.093750 sec. Elapsed time: 0.112000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.55221 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480177838
                                f(x_k) + sum(|constr|)     3.435021213384323400
                                                f(x_0)    15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.109375 sec. Elapsed time: 0.114000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.55313 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480104909
                                f(x_k) + sum(|constr|)     3.435021213384250600
                                                f(x_0)    15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.203125 sec. Elapsed time: 0.134000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.53356 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480201296
                                f(x_k) + sum(|constr|)     3.435021213384347000
                                                f(x_0)    15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied
```

```
FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.156250 sec. Elapsed time: 0.148000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.48955 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145200
                                        sum(|constr|)      0.000000001480053240
                                f(x_k) + sum(|constr|)     3.435021213384198600
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.078125 sec. Elapsed time: 0.120000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.73555 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904144800
                                        sum(|constr|)      0.000000001480114937
                                f(x_k) + sum(|constr|)     3.435021213384259900
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.171875 sec. Elapsed time: 0.161000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.46998 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480177975
                                f(x_k) + sum(|constr|)     3.435021213384323400
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
```

```
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.093750 sec. Elapsed time: 0.113000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.63501 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145200
                                        sum(|constr|)      0.000000001480022433
                                f(x_k) + sum(|constr|)     3.435021213384167500
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.093750 sec. Elapsed time: 0.133000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.57853 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146600
                                        sum(|constr|)      0.000000001480151361
                                f(x_k) + sum(|constr|)     3.435021213384298100
                                             f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.125000 sec. Elapsed time: 0.111000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.51203 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146100
                                        sum(|constr|)      0.000000001480133807
                                f(x_k) + sum(|constr|)     3.435021213384279900
                                             f(x_0)     15.000000000000000000
```

```
Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.140625 sec. Elapsed time: 0.132000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.44897 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480245268
                                f(x_k) + sum(|constr|)     3.435021213384390900
                                              f(x_0)      15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.109375 sec. Elapsed time: 0.111000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.54501 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480110679
                                f(x_k) + sum(|constr|)     3.435021213384256400
                                              f(x_0)      15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.093750 sec. Elapsed time: 0.113000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.49667 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145200
                                        sum(|constr|)      0.000000001480038690
```

```
                              f(x_k) + sum(|constr|)      3.435021213384184000
                                              f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.156250 sec. Elapsed time: 0.161000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.46846 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145200
                                        sum(|constr|)      0.000000001480144007
                              f(x_k) + sum(|constr|)      3.435021213384289200
                                              f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.093750 sec. Elapsed time: 0.108000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.55942 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480253945
                              f(x_k) + sum(|constr|)      3.435021213384399800
                                              f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.109375 sec. Elapsed time: 0.110000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.50197 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
```

```
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146100
                                          sum(|constr|)      0.000000001480206990
                                 f(x_k) + sum(|constr|)      3.435021213384353200
                                                f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.125000 sec. Elapsed time: 0.117000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.44398 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145200
                                          sum(|constr|)      0.000000001480118718
                                 f(x_k) + sum(|constr|)      3.435021213384263900
                                                f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.125000 sec. Elapsed time: 0.111000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.55008 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904144800
                                          sum(|constr|)      0.000000001480233464
                                 f(x_k) + sum(|constr|)      3.435021213384378000
                                                f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.109375 sec. Elapsed time: 0.111000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.49745 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
```

```
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146600
                                          sum(|constr|)      0.000000001480199237
                                 f(x_k) + sum(|constr|)      3.435021213384345600
                                                 f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.156250 sec. Elapsed time: 0.128000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.46796 seconds
Starting numeric solver
===== * * * ============================================================== * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145200
                                          sum(|constr|)      0.000000001479959146
                                 f(x_k) + sum(|constr|)      3.435021213384104500
                                                 f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.109375 sec. Elapsed time: 0.162000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.45416 seconds
Starting numeric solver
===== * * * ============================================================== * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904146100
                                          sum(|constr|)      0.000000001480180135
                                 f(x_k) + sum(|constr|)      3.435021213384326100
                                                 f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.078125 sec. Elapsed time: 0.106000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.54665 seconds
```

```
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480352666
                                f(x_k) + sum(|constr|)     3.435021213384498400
                                                f(x_0)    15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.125000 sec. Elapsed time: 0.113000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.50245 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145700
                                        sum(|constr|)      0.000000001480173436
                                f(x_k) + sum(|constr|)     3.435021213384319000
                                                f(x_0)    15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.109375 sec. Elapsed time: 0.123000 sec.
Problem type appears to be: con
Time for symbolic processing: 0.4522 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904145200
                                        sum(|constr|)      0.000000001480160360
                                f(x_k) + sum(|constr|)     3.435021213384305700
                                                f(x_0)    15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   74
CPU time: 0.109375 sec. Elapsed time: 0.113000 sec.
```

```
Problem type appears to be: con
Time for symbolic processing: 0.54331 seconds
Starting numeric solver
===== * * * ========================================================================= * * *
TOMLAB - Tomlab user Demo license  999100. Valid to 2016-05-09
================================================================================
Problem: ---  1: Optimal Robot Path Planning    f_k       3.435021211904144800
                                          sum(|constr|)      0.000000001480380054
                                 f(x_k) + sum(|constr|)      3.435021213384525000
                                                 f(x_0)     15.000000000000000000

Solver: snopt.  EXIT=0.  INFORM=1.
SNOPT 7.2-12 NLP code
Optimality conditions satisfied

FuncEv   19 GradEv   17 ConstrEv   17 ConJacEv   17 Iter   16 MinorIter   73
CPU time: 0.093750 sec. Elapsed time: 0.110000 sec.
Trial>>
```