<untitled> #28

MODELS
Model-01   Flashlight
Model-02   Radio
Model-03   Toy Car
Model-04   Ball Point Pen

If model-01 is disassemble in line -- 1; otherwise -- 0 = 0
If model-02 is disassemble in line -- 1; otherwise -- 0 = 0
If model-03 is disassemble in line -- 1; otherwise -- 0 = 1
If model-04 is disassemble in line -- 1; otherwise -- 0 = 1

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Warning: your license will expire in 3 days
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Academic license - for non-commercial use only
Gurobi Optimizer version 9.0.3 build v9.0.3rc0 (win64)
Optimize a model with 79088 rows, 6048 columns and 395541 nonzeros
Model fingerprint: 0x1c515917
Variable types: 117 continuous, 5931 integer (5931 binary)
Coefficient statistics:
  Matrix range     [1e+00, 1e+05]
  Objective range  [2e-06, 1e+00]
  Bounds range     [1e+00, 1e+00]
  RHS range        [1e+00, 3e+05]
Presolve removed 62402 rows and 2218 columns
Presolve time: 2.15s
Presolved: 16686 rows, 3830 columns, 82363 nonzeros
Variable types: 105 continuous, 3725 integer (3725 binary)
Found heuristic solution: objective 3.0112910

Root relaxation: objective 2.011948e+00, 267 iterations, 0.05 seconds

    Nodes    |    Current Node    |     Objective Bounds      |     Work
 Expl Unexpl |  Obj  Depth IntInf | Incumbent    BestBd   Gap | It/Node Time

     0     0    2.01195    0    6    3.01129    2.01195  33.2%     -    2s
H    0     0                       3.0102660    2.01195  33.2%     -    2s
     0     0    3.00927    0   12    3.01027    3.00927  0.03%     -    2s
     0     0    3.00943    0   21    3.01027    3.00943  0.03%     -    3s

Explored 1 nodes (910 simplex iterations) in 3.83 seconds
Thread count was 4 (of 4 available processors)

Solution count 3: 3.01027 3.01027 3.01129

Optimal solution found (tolerance 1.00e-04)
Best objective 3.010266000000e+00, best bound 3.010266000000e+00, gap 0.0000%
<gurobi.Model MIP instance MILP Model: 79088 constrs, 6048 vars, No parameter changes>
```

Solution Results

Time = 10.465916872024536 second
Total number of stations opened from both sides : 2.0
Total number of stations opened from only one side : 1.0
Total number of stations opened : 5.0

MODEL- m3

(m, i)	(j,s)	Processing Time	Starting Time	Ending Time
('m3', 2) :	[(1, 1)]	3	0.0	3.0
('m3', 7) :	[(1, 1)]	37	3.0	40.0
('m3', 13) :	[(3, 1)]	2	11.0	13.0
('m3', 33) :	[(3, 1)]	10	27.0	37.0
('m3', 49) :	[(2, 2)]	34	0.0	34.0
('m3', 74) :	[(3, 1)]	11	0.0	11.0
('m3', 96) :	[(3, 2)]	29	11.0	40.0
('m3', 97) :	[(3, 1)]	14	13.0	27.0

MODEL- m4

(m, i)	(j,s)	Processing Time	Starting Time	Ending Time
('m4', 1) :	[(1, 1)]	5	0.0	5.0
('m4', 4) :	[(1, 2)]	7	22.0	29.0
('m4', 6) :	[(1, 1)]	11	29.0	40.0
('m4', 9) :	[(1, 2)]	16	5.0	21.0
('m4', 11) :	[(3, 1)]	33	0.0	33.0
('m4', 13) :	[(1, 1)]	6	23.0	29.0
('m4', 17) :	[(2, 2)]	16	0.0	16.0
('m4', 18) :	[(3, 2)]	32	0.0	32.0