Group 1 - Athanasia Polychronopoulou, Nouf Albarakati

Group 2 - Yuan Cao, Chi Zhang

Group 3 - Jeffrey Newell

Group 4 - Kier Eli Heilman

Group 5 - Motaz Abdul Aziz Ali Al Hami, Semir Elezobikj, Howard Liu

Group 6 - Peiyi Li, Liya Ma, Anjan Nepal

Group 7 - Feipeng Zhao, Bernardo Juncal

Group 8 - Lakesh Kansekhar, David Dobor, Tiffany Nguyen

Group 9 – An Vi Dang

Sorted by Map Distance Criteria (with time as tie-breaker):

Group # - Avg Dist - Time

Group 5 - 418.9639 - 0.58266366 (Jessie reports an even lower number on his computer.)

Group 2 - 418.9639 - 0.68577

Group 8 - 418.9639 - 1.80029848

Group 4 - 421.72482 - 47.696108

Group 1 - 455.18432 – 28.45059

Group 9 - 672.62846 - 3.14784616

Group 3\*\* - 12052.50332 - 18.0902

Group 6\* - 463.39508 - 2.1219378

Group 7\* - 415.6085 - 0.01827108

\* (Did not complete one or more maps.)

\*\* Seems to have swapped map values for row and column when calculating. May perform much better.

Group 1: Red Team

Athanasia Polychronopoulou

Nouf

Map 1

Distance (Real): 496.8643

Distance (Constant Jump Cost): 424.8643

Distance (Map Only): 305.8643

Time: 325.1685

Map 2

Distance (Real): 549.1582

Distance (Constant Jump Cost): 473.1582

Distance (Map Only): 361.1582

Time: 337.5836

Map 3

Distance (Real): 684.3717

Distance (Constant Jump Cost): 586.3717

Distance (Map Only): 456.3717

Time: 341.1627

Map 4

Distance (Real): 999

Distance (Constant Jump Cost): 877

Distance (Map Only): 439

Time: 86.0983

Map 5

Distance (Real): 933.5274

Distance (Constant Jump Cost): 858.5274

Distance (Map Only): 713.5274

Time: 307.1395

Average:

Distance (Real): 732.58432

Distance (Constant Jump Cost): 643.98432

Distance (Map Only): 455.18432

Time: 28.45059

Group 2: Magenta Team

Cao Yun

Zhang Chi

Map 1

Distance (Real): 487.4261

Distance (Constant Jump Cost): 412.4261

Distance (Map Only): 294.4261

Time: 6.8593

Map 2

Distance (Real): 544.9288

Distance (Constant Jump Cost): 466.9288

Distance (Map Only): 354.9288

Time: 6.8366

Map 3

Distance (Real): 607.3087

Distance (Constant Jump Cost): 512.3087

Distance (Map Only): 407.3087

Time: 7.9769

Map 4

Distance (Real): 1008

Distance (Constant Jump Cost): 815

Distance (Map Only): 408

Time: 4.0865

Map 5

Distance (Real): 838.1559

Distance (Constant Jump Cost): 773.1559

Distance (Map Only): 630.1559

Time: 7.8846

Average:

Distance (Real): 697.1639

Distance (Constant Jump Cost): 595.9639

Distance (Map Only): 418.9639

Time: 0.68577

Group 3: Blue Team

Jeffrey Newell

Map 1

Distance (Real): 518.1959

Distance (Constant Jump Cost): 433.1959

Distance (Map Only): 347.1959

Time: 168.9511

Map 2

Distance (Real): 595.5093

Distance (Constant Jump Cost): 509.5093

Distance (Map Only): 421.5093

Time: 170.7755

Map 3

Distance (Real): 609.5375

Distance (Constant Jump Cost): 530.5375

Distance (Map Only): 447.5375

Time: 179.2952

Map 4

Distance (Real): 58398

Distance (Constant Jump Cost): 58319

Distance (Map Only): 58160

Time: 166.8132

Map 5

Distance (Real): 1080.3

Distance (Constant Jump Cost): 985.2739

Distance (Map Only): 866.2739

Time: 213.5079

Average:

Distance (Real): 12240.30334

Distance (Constant Jump Cost): 12155.50332

Distance (Map Only): 12052.50332

Time: 18.0902

Group 4: Cyan Team

Kier Eli Heilman

Map 1

Distance (Real): 492.1383

Distance (Constant Jump Cost): 418.1383

Distance (Map Only): 299.1383

Time: 462.1146

Map 2

Distance (Real): 548.4374

Distance (Constant Jump Cost): 471.4374

Distance (Map Only): 358.4374

Time: 460.8107

Map 3

Distance (Real): 608.1882

Distance (Constant Jump Cost): 516.1882

Distance (Map Only): 410.1882

Time: 651.3582

Map 4

Distance (Real): 957

Distance (Constant Jump Cost): 817

Distance (Map Only): 409

Time: 134.0497

Map 5

Distance (Real): 837.8602

Distance (Constant Jump Cost): 775.8602

Distance (Map Only): 631.8602

Time: 655.0866

Average:

Distance (Real): 688.72482

Distance (Constant Jump Cost): 599.72482

Distance (Map Only): 421.72482

Time: 47.696108

Group 5: Green Team

Motaz Abdul Aziz Ali Al Hami

Semir Elezobikj

Howard Liu

Map 1

Distance (Real): 487.4261

Distance (Constant Jump Cost): 412.4261

Distance (Map Only): 294.4261

Time: 5.3114

Map 2

Distance (Real): 544.9288

Distance (Constant Jump Cost): 466.9288

Distance (Map Only): 354.9288

Time: 4.7663

Map 3

Distance (Real): 609.3087

Distance (Constant Jump Cost): 512.3087

Distance (Map Only): 407.3087

Time: 5.3342

Map 4

Distance (Real): 1020

Distance (Constant Jump Cost): 815

Distance (Map Only): 408

Time: 7.3934

Map 5

Distance (Real): 836.1558

Distance (Constant Jump Cost): 773.1559

Distance (Map Only): 630.1559

Time: 6.0005

Average:

Distance (Real): 699.5639

Distance (Constant Jump Cost): 595.9639

Distance (Map Only): 418.9639

Time: 0.58266366

[Congratulations! Your team has the lowest distance and time.]

Group 6: Yellow Team

Peiyi Li

Liya Ma

Anjan Nepal

Map 1

Distance (Real): 487.4261

Distance (Constant Jump Cost): 412.4261

Distance (Map Only): 294.4261

Time: 5.3114

Map 2

Distance (Real): 544.9288

Distance (Constant Jump Cost): 466.9288

Distance (Map Only): 354.9288

Time: 4.7663

Map 3

Distance (Real): 609.3087

Distance (Constant Jump Cost): 512.3087

Distance (Map Only): 407.3087

Time: 5.3342

Map 4

Did not complete.

Error Message:

Error in astar (line 82)

neighbors = get\_neighbors(coordinate(current, 2:3), row, col);

Error in grade\_astar\_projects (line 45)

[map\_path\_rows, map\_path\_cols] = astar(map, start, goal);

Attempted to access map\_path\_cols(1); index out of bounds because numel(map\_path\_cols)=0.

Map 5

Distance (Real): 836.1558

Distance (Constant Jump Cost): 773.1559

Distance (Map Only): 630.1559

Time: 6.0005

Average:

Distance (Real): 662.39508

Distance (Constant Jump Cost): 587.59508

Distance (Map Only): 463.39508

Time: 2.1219378

Group 7:

Feipeng Zhao

Map 1

Distance (Real): 658.3036

Distance (Constant Jump Cost): 585.3036

Distance (Map Only): 467.3036

Time: 0.6838514

Map 2

Distance (Real): 589.6085

Distance (Constant Jump Cost): 502.6085

Distance (Map Only): 415.6085

Time: 0.01827108

Map 3

Did not complete.

Error Message:

In an assignment A(I) = B, the number of elements in B and I must be the same.

Error in astar (line 54)

current(1) = min\_row;

Error in grade\_astar\_projects (line 45)

[map\_path\_rows, map\_path\_cols] = astar(map, start, goal);

Map 4

Did not complete.

Same message as 3.

Map 5

Did not complete.

Same message as 3.

Average:

Distance (Real): 589.6085

Distance (Constant Jump Cost): 502.6085

Distance (Map Only): 415.6085

Time: 0.01827108

Group 8:

Lakesh Kansekhar

David Dobor

Tiffany Nguyen

Map 1

Distance (Real): 487.4261

Distance (Constant Jump Cost): 412.4261

Distance (Map Only): 294.4261

Time: 1.977747

Map 2

Distance (Real): 544.9288

Distance (Constant Jump Cost): 466.9288

Distance (Map Only): 354.9288

Time: 1.989866

Map 3

Distance (Real): 605.3087

Distance (Constant Jump Cost): 512.3087

Distance (Map Only): 407.3087

Time: 2.145711

Map 4

Distance (Real): 956

Distance (Constant Jump Cost): 815

Distance (Map Only): 408

Time: 0.7393474

Map 5

Distance (Real): 836.1559

Distance (Constant Jump Cost): 773.1559

Distance (Map Only): 630.1559

Time: 2.148821

Average:

Distance (Real): 685.9639

Distance (Constant Jump Cost): 595.9639

Distance (Map Only): 418.9639

Time: 1.80029848

Group 9:

An Vi Dang

Map 1

Distance (Real): 565.3554

Distance (Constant Jump Cost): 501.3554

Distance (Map Only): 394.3554

Time: 0.9798199

Map 2

Distance (Real): 593.2725

Distance (Constant Jump Cost): 507.2725

Distance (Map Only): 419.2725

Time: 0.8849009

Map 3

Distance (Real): 593.6274

Distance (Constant Jump Cost): 513.6274

Distance (Map Only): 429.6274

Time: 2.875956

Map 4

Distance (Real): 956

Distance (Constant Jump Cost): 815

Distance (Map Only): 408

Time: 5.280628

Map 5

Distance (Real): 2277.887

Distance (Constant Jump Cost): 2118.887

Distance (Map Only): 1711.887

Time: 5.717926

Average:

Distance (Real): 997.22846

Distance (Constant Jump Cost): 891.22846

Distance (Map Only): 672.62846

Time: 3.14784616