

Kruskal's algorithm which is represented in the graph with red dots performs worse with higher nodes at higher densities, but with lower nodes and higher densities Kruskal and Prim perform with similar time statistics. Additionally when the Minimum Spanning Tree (MST) algorithms run, with low density and high number of nodes Kruskal and Prim perform similarly. Ultimately Prim's MST is the better algorithm for larger and more complex datasets. As the graph indicates, Kruskal's algorithm only becomes noticeably worse once the number of nodes and densities increases to a certain point. At 100% Density and 200+ nodes Kruskal's MST algorithm performs exponential time in comparison to Prim's MST algorithm. Therefore, there is no comparison, Prim's algorithm is the obvious choice when constructing a Minimum Spanning Tree from a complete graph.