

## Air Cargo Planning Heuristic Analysis

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Udacity AIND – Implementation of Planning Search

Search Strategy	Search Algorithm	Time Elapsed	Path Length	Node Expansions	Goal Tests	New Nodes	Optimality
Uninformed	Breadth First Search	0.132	6	43	56	180	Yes
	Breadth First Tree Search	2.605	6	1458	1459	5960	No
	Depth First Graph Search	0.037	20	21	22	84	Yes
	Depth Limited Search	0.199	50	101	271	414	Yes
	Uniform Cost Search	0.092	6	55	57	224	Yes
	Recursive Best First Search with h_1	5.23	6	4229	4230	17023	No
Informed	Greedy Best First Graph search with h_1	0.006	6	7	9	28	Yes
	A* Search with h1	0.052	6	55	57	224	Yes
	A* Search with h_ignore_preconditions	0.061	6	41	43	170	Yes
	A* Search with h_pg_levelsum	0.874	6	11	13	50	Yes

Search Strategy	Search Algorithm	Time Elapsed	Path Length	Node Expansions	Goal Tests	New Nodes	Optimality
Uninformed	Breadth First Search	40.392	9	3343	4609	30509	No
	Breadth First Tree Search	NA	NA	NA	NA	NA	NA
	Depth First Graph Search	4.257	619	624	625	5602	No
	Depth Limited Search	NA	NA	NA	NA	NA	NA
	Uniform Cost Search	14.981	9	4849	4851	44001	No
	Recursive Best First Search with h_1	NA	NA	NA	NA	NA	NA
	Greedy Best First Graph search with h_1	2.358	16	966	968	8694	Yes
Informed	A* Search with h1	11.917	9	4849	4851	44001	No
	A* Search with h_ignore_preconditions	4.239	9	1443	1445	13234	No
	A* Search with h_pg_levelsum	48.441	9	85	87	831	No

Search Strategy	Search Algorithm	Time Elapsed	Path Length	Node Expansions	Goal Tests	New Nodes	Optimality
Uninformed	Breadth First Search	138.25	12	14663	18098	129631	No
	Breadth First Tree Search	NA	NA	NA	NA	NA	NA
	Depth First Graph Search	1.729	392	408	409	3364	Yes
	Depth Limited Search	NA	NA	NA	NA	NA	NA
	Uniform Cost Search	57.145	12	18235	18237	159716	No
	Recursive Best First Search with h_1	NA	NA	NA	NA	NA	NA
	Greedy Best First Graph search with h_1	18.227	21	5462	5464	48176	No
Informed	A* Search with h1	53.787	12	18235	18237	159716	No
	A* Search with h_ignore_preconditions	16.496	12	4945	4847	43991	Yes
	A* Search with h_pg_levelsum	NA	NA	NA	NA	NA	NA