

## Monolithic Results

Instance Name	A*(GNN)			BFS		
	Length.	Nodes	Time[ms]	Length.	Nodes	Time[ms]
Assemble_B10-pl.5	–	–	TO	–	–	TO
Assemble_B2-pl.5	5	14	264	5	14	125
Assemble_B4-pl.5	5	14	332	5	14	167
Assemble_B6-pl.5	5	14	826	5	14	689
Assemble_B8-pl.5	5	14	25636	5	14	25949
Assemble_B9-pl.5	5	14	296625	5	14	379798
Assemble_C-pl.5	5	14	237	5	14	165
CC_2.2.3-pl.3	4	11	108	22	146	2225
CC_2.2.3-pl.5	5	9	134	10	24	563
CC_2.2.3-pl.7	8	33837	214811	–	–	TO
CC_2.2.3-pl.8	8	247	2434	11	36	763
CC_2.2.4-pl.3	3	3	279	3	3	290
CC_2.2.4-pl.4	6	9	212	8	11	689
CC_2.2.4-pl.6	7	26	296	–	–	TO
CC_2.2.4-pl.7	8	498	4701	–	–	TO
CC_2.3.4-pl.4	6	10	1655	13	19	4652
CC_2.3.4-pl.5	12	61	5848	13	24	5774
CC_2.3.4-pl.6	8	11	3383	8	10	5843
CC_3.2.3-pl.3	3	3	196	3	3	330
CC_3.2.3-pl.6	6	113	1092	–	–	TO
CC_3.2.3-pl.7	7	1835	24464	–	–	TO
CC_3.3.3-pl.3	3	4	367	3	3	295
CC_3.3.3-pl.5	7	22	534	8	11	670
CC_3.3.3-pl.6	–	–	TO	–	–	TO
CC_3.3.3-pl.7	8	79	1255	–	–	TO
Coin_in_the_Box-pl.2	2	2	50	2	2	64
Coin_in_the_Box-pl.5	5	77	552	5	16	220
Coin_in_the_Box-pl.7	7	1817	13110	–	–	TO
SC_4.1-pl.5	5	17	99	–	–	TO
SC_4.2-pl.5	5	15	99	–	–	TO
SC_4.2-pl.8	8	339	1316	–	–	TO
SC_4.3-pl.6	6	21	113	–	–	TO
SC_4.3-pl.8	8	59	156	–	–	TO

SC_4.4-pl_5	5	17	87	–	–	TO
SC_8.10-pl_8	8	542	3841	1586	19087	326379
SC_8.10-pl_9	9	1660	14557	1586	19087	319399
SC_8.10-pl_12	12	31662	203157	–	–	TO
SC_9.11-pl_4	4	8	141	6	13	172
SC_9.11-pl_5	5	11	96	8	21	296
SC_9.11-pl_7	7	41	299	1286	15107	195915
SC_9.11-pl_9	9	238	2158	1099	12457	150920
SC_9.11-pl_10	10	663	5467	1100	12470	176047
SC_9.11-pl_11	11	1262	10960	1100	12472	173729
SC_10.8-pl_9	–	–	TO	–	–	TO
SC_10.8-pl_14	14	93	378	16	33	273
SC_10.10-pl_2	2	6	173	4	13	720
SC_10.10-pl_3	3	10	248	–	–	TO
SC_10.10-pl_9	9	10	120	9	10	225
SC_10.10-pl_9	9	886	17444	13	65	946
SC_10.10-pl_10	10	15	158	11	17	273
SC_10.10-pl_13	13	15826	330014	–	–	TO
SC_10.10-pl_14	14	30967	582175	–	–	TO
SC_10.10-pl_17	17	946	5175	–	–	TO
SC_10.10-pl_17	–	–	TO	–	–	TO
avg± std (all)	7 ± 3	2481 ± 7827	35557 ± 106042	249 ± 510	2851 ± 6028	55455 ± 108611
iqm± iqr (all)	6 ± 4	61 ± 447	1335 ± 5215	8 ± 9	19 ± 31	1488 ± 10596
avg± std (comm)	7 ± 3	187 ± 391	12358 ± 51387	249 ± 510	2851 ± 6028	55455 ± 108611
iqm± iqr (comm)	7 ± 4	22 ± 71	882 ± 3307	8 ± 9	19 ± 31	1488 ± 10596
Solved Instances	50/54 (92.59%)			32/54 (59.26%)		

Table 1: Comparison of execution on the domain over the **Test** instances. The model used by A\*(GNN) has been trained using the instances reported in the previous **Train** Table.