(All answers are post adding tool functionality)

Mission complete:

BFS: 17
DFS: 17
DLS (limit is 2): 18
DLS (limit is 6): 7
DLS (limit is 8): 17

Partitioned tasks:

<function go_to_sample at 0x1051d0ca0> :
Final DFS result count: 9
Final BFS result count: 14
Final LDFS result count: 9

<function remove_sample at 0x1051d0d30> :
Final DFS result count: 7
Final BFS result count: 2
Final LDFS result count: 7

<function return_to_charger at 0x1051d0dc0> :
Final DFS result count: 10
Final BFS result count: 12
Final LDFS result count: 10

Even though we would expect to see less states visited in partitioned tasks, there are more because it had to do some extra searching to get to the proper state. (Can run the program for more specific state data)