Ambient Hamiltonian: [[1 0] [0 -1]]

Control Hamiltonians: [array([[0, 1], [1, 0]]), array([[0.+0.j, 0.-1.j], [0.+1.j, 0.+0.j]]), array([[1, 0], [0, -1]])]

Detunings: [0.001, 0.001, 0.001, 0.001]

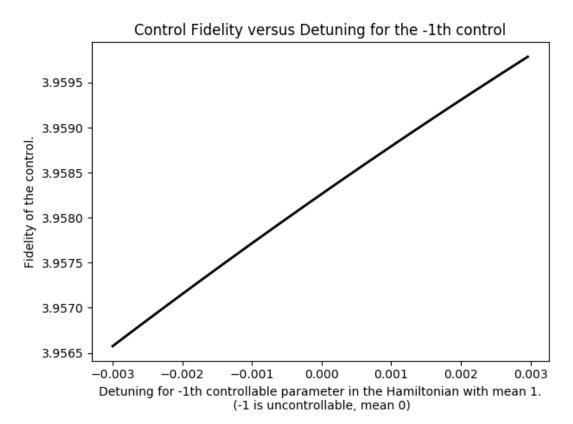
dt: 0.125663706144

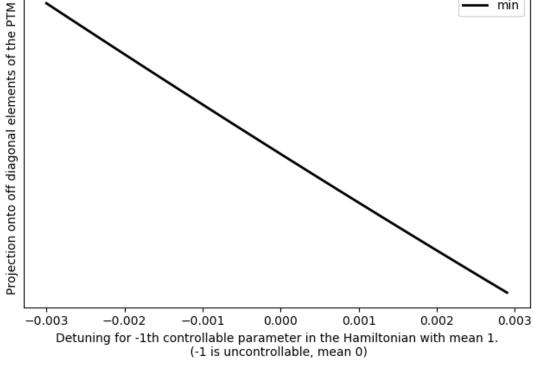
Probs: [1.]

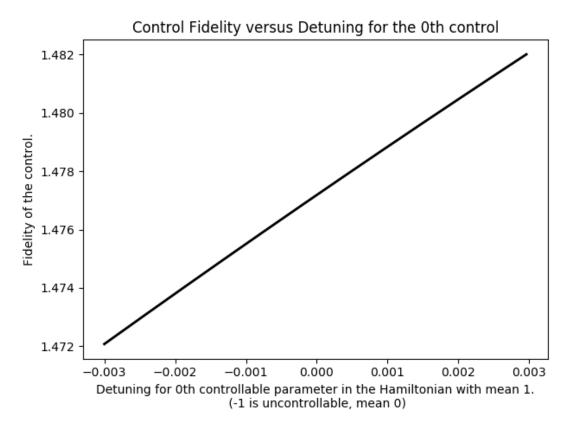
Target Operator: $[[0 \ 1] \ [1 \ 0]]$

Time: 5.37223911285

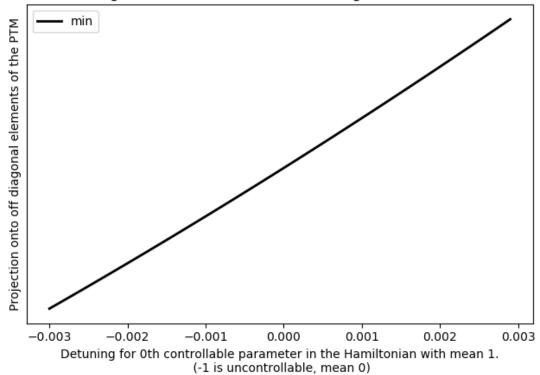
 $\begin{array}{c} \text{Controlset: } [\operatorname{array}([[\ 0.70632232, -0.03809112, 0.10493314], [\ 0.63018367, 0.10233421, -0.05692384], [\ 0.661526, -0.00414579, -0.04961983], [\ 0.78102236, -0.03262928, 0.06260574], [\ 0.62191342, -0.02904465, 0.07335479], [\ 0.56657401, 0.12354415, 0.10093015], [\ 0.77627521, 0.01241071, -0.07934662], [\ 0.7961406, 0.00424334, 0.06049173], [\ 0.5915379, -0.03937652, 0.10706888], [\ 0.61565106, 0.10133654, 0.03363359], [\ 0.71758031, 0.11591578, -0.08403868], [\ 0.60486508, -0.02774547, -0.05131848], [\ 0.64058754, 0.01154437, 0.10134944], [\ 0.62177454, 0.00587047, -0.06658417], [\ 0.73325049, 0.00190145, -0.04272458], [\ 0.90324118, 0.0759291, -0.06746075], [\ 0.74018324, -0.01508013, 0.03804081], [\ 0.74965076, 0.02196144, -0.04591617], [\ 0.75094495, -0.00301857, -0.00290854], [\ 0.74630262, -0.08879731, -0.05193963], [\ 0.67444056, -0.08111951, 0.03194128], [\ 0.69906798, -0.04454306, -0.00504798], [\ 0.73438857, 0.04896799, 0.08894455], [\ 0.71438671, -0.06152548, 0.00553765], [\ 0.81190034, 0.01177685, 0.00636737], [\ 0.7787008, 0.03023102, 0.01403496], [\ 0.90656878, -0.1221045, -0.00435753], [\ 0.94127148, 0.02273744, 0.09472401], [\ 0.77832395, 0.0146806, -0.05200703], [\ 0.72563153, -0.08423143, 0.00315435], [\ 0.80850499, -0.06314323, 0.04633342], [\ 0.72835048, 0.06042271, 0.0400363], [\ 0.77649063, -0.04705185, 0.01728907], [\ 0.65420614, -0.08399177, 0.11255151], [\ 0.67226156, 0.09139314, 0.05487841], [\ 0.72975677, 0.04293974, -0.06875819], [\ 0.83814015, 0.03842002, 0.00304929], [\ 0.69306521, -0.01272767, -0.01520798], [\ 0.80797238, -0.06930958, -0.08370485], [\ 0.86597796, -0.02206621, 0.05685763], [\ 0.74580341, -0.01797858, -0.06977057], [\ 0.66635975, -0.03532712, 0.01690537], [\ 0.76387711, -0.06428602, -0.00978651], [\ 0.88879048, 0.01671278, -0.07907142], [\ 0.76689687, -0.01435058, 0.00799817], [\ 1.05291192, 0.01341263, 0.04266432], [\ 0.83978948, -0.02472612, 0.00862172], [\ 0.87149569, -0.02797163, -0.02753329], [\ 0.80454092, -0.06072192, 0.07179983], [\ 0.8152241$



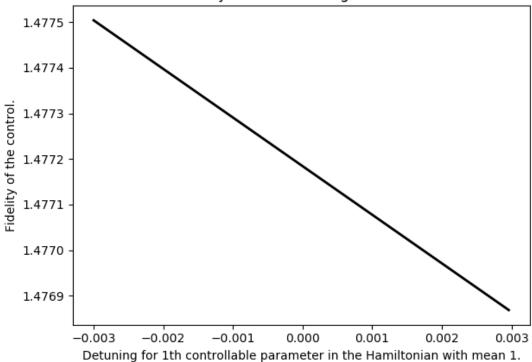




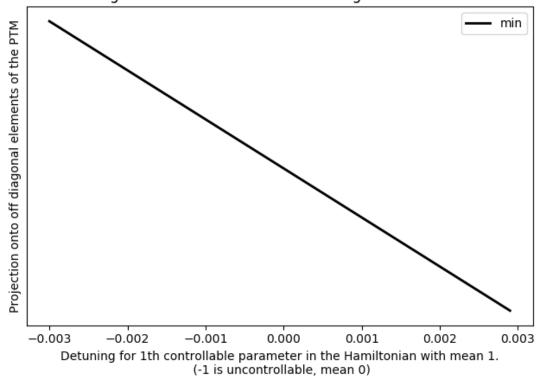
Off diagonal contribution versus detuning for the 0th control

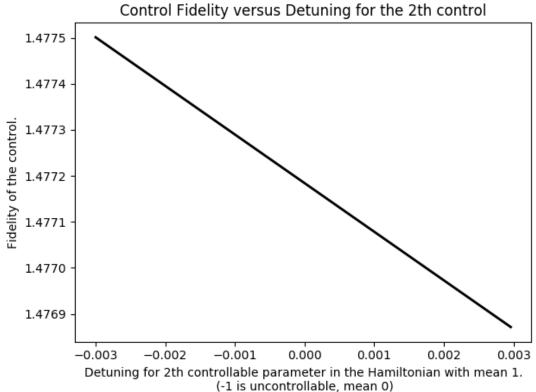


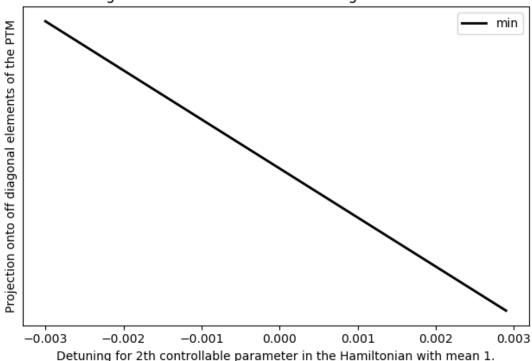
Control Fidelity versus Detuning for the 1th control



Detuning for 1th controllable parameter in the Hamiltonian with mean 1. (-1 is uncontrollable, mean 0)







Detuning for 2th controllable parameter in the Hamiltonian with mean 1. (-1 is uncontrollable, mean 0)