

Performance Analysis:

Median run time of the test(in ms):

Function	Design 1 (Initial with Polar)	Design 1 (Initial with Cartesian)	Design 2	Design 3	Design 5 (Initial with Polar)	Design 5 (Initial with Cartesian)
getX()	273 Min: 260 Max: 295	12 Min: 12 Max: 13	258 Min: 239 Max: 283	3 Min: 2 Max: 3	238 Min: 235 Max: 239	3 Min: 2 Max: 3
getY()	233 Min: 225 Max: 243	33 Min: 32 Max: 37	230 Min: 209 Max: 244	2 Min: 1 Max: 2	210 Min: 208 Max: 211	2 Min: 2 Max: 3
getRho()	3 Min: 3 Max: 3	16 Min: 14 Max: 18	3 Min: 2 Max: 3	2 Min: 2 Max: 3	2 Min: 2 Max :3	2 Min: 2 Max: 3
getTheta()	3 Min: 3 Max: 3	1227 Min: 1213 Max: 1241	3 Min: 2 Max: 3	1138 Min: 1127 Max: 1157	2 Min: 2 Max: 3	1253 Min: 1230 Max: 1292
getDistance()	890 Min: 881 Max: 904	8 Min: 7 Max: 8	843 Min: 801 Max: 869	3 Min: 3 Max: 4	825 Min: 802 Max: 852	4 Min: 3 Max: 4
rotatePoint()	1318 Min: 1277 Max: 1398	802 Min: 771 Max: 831	1208 Min: 1189 Max: 1233	801 Min: 800 Max: 802	1253 Min: 1207 Max: 1291	846 Min: 808 Max: 874
Total Run Time	2721 Min: 2684 Max: 2770	2098 Min: 2099 Max: 2120	2545 Min: 2387 Max: 2593	1949 Min: 1940 Max: 1966	2531 Min: 2462 Max: 2567	2110 Min: 2056 Max: 2177