

t (s)	x (m)	y (m)	Vx (m/s)	Vy (m/s)	V (m/s)	Ax (m/s²)	Ay (m/s²)	A (m/s²)	Smoothed V (m/s)	Smoothed A (m/s²)
0.000	2.916E-02	2.953E-02								
1.668E-02	5.315E-02	2.953E-02	1.438	0.000	1.43824940047962					
3.337E-02	2.916E-02	-1.846E-02	-1.437E+00	-2.875E+00	3.21463242891046	-172.297	-172.281	243.653640398682	2.03051696471276	
5.005E-02	2.916E-02	5.537E-03	0.000E+00	1.439E+00	1.4386690647482	8.617E+0	2.586E+02	272.614087563962	2.03057691675113	212.745032826655
6.673E-02	5.167E-03	5.537E-03	-1.438E+00	0.000E+00	1.43842925659472	-8.624E+0	-8.625E+01	121.96737051732	1.43822190899168	188.96667061321
8.342E-02	2.916E-02	5.537E-03	1.438E+00	0.000E+00	1.43756740563212	1.723E+0	0.000E+00	172.318553758349	2.1002894308142	194.809011318925
0.100	-2.473E-02	-1.236E-02	-3.250	-1.079	3.42485561701741	-282.742	-65.105	290.141109681106	2.70499374619744	284.749328026741
0.117	2.473E-02	1.236E-02	2.909	1.454	3.25255821594278	362.336	149.032	391.788320640767	2.24276171577433	296.131243818072
0.133	2.4E-02	1.2E-02	-0.045625	-0.0225	0.0508713143628116	-184.6897	-92.288602	206.464301132342	1.11692718602147	199.486748497749
0.150	2.328E-02	1.164E-02	-0.04235294117	-0.021176470588235	0.0473520277588191	0.1924740	0.0778546	0.207623720138529	0.0487884296998456	68.9069531926074
0.167	2.255E-02	1.127E-02	-0.043	-0.022	0.0481419469779061	-0.034602	-0.0346020	0.0489347253416257	0.0477909529476336	0.0970535072015731
0.184	2.182E-02	1.091E-02	-0.043	-0.021	0.0478788841061756	0.000	0.035	0.0346020761245647	0.0489640484822978	0.0901878975019805
0.200	2.109E-02	1.055E-02	-0.046	-0.023	0.0508713143628116	-0.168	-0.083	0.187026891039751	0.0487893999252221	0.139634335259969
0.217	2.037E-02	1.018E-02	-0.042	-0.022	0.0476180013066792	0.192	0.043	0.197274038615592	0.0487980820103338	0.143617753999384
0.234	1.964E-02	9.819E-03	-0.043	-0.021	0.0479049303615105	-0.035	0.031	0.0465523323428103	0.0488351040676791	0.145478783388427
0.250	1.891E-02	9.455E-03	-0.046	-0.023	0.0509823805348475	-0.168	-0.095	0.192609979206878	0.0489481692621811	0.139047643450704
0.267	1.818E-02	9.092E-03	-0.043	-0.021	0.0479571968901854	0.158	0.082	0.177980618802423	0.0487990995157624	0.135121751379248
0.284	1.746E-02	8.728E-03	-0.042	-0.021	0.0474577211222542	0.035	-0.003	0.0347746561284434	0.0487990995157624	0.144567256973482
0.300	1.673E-02	8.364E-03	-0.046	-0.023	0.0509823805348475	-0.205	-0.084	0.220946495989579	0.0487990995157624	0.144567256973482
0.317	1.6E-02	8.001E-03	-0.04294117647	-0.021	0.0479571968901854	0.1578719	0.082	0.177980618802423	0.0489743314663357	0.134129107468154
0.334	1.527E-02	7.637E-03	-0.04294117647	-0.021	0.0479834169739741	0	-0.003	0.00346020761245882	0.0487881475188515	0.111637152366931
0.350	1.455E-02	7.273E-03	-0.045	-0.023	0.050423828692395	-0.128676	-0.084	0.153470630685912	0.0487881475188515	0.101096105025895
0.367	1.382E-02	6.91E-03	-0.043	-0.021352941176470	0.0479571968901854	0.121	0.0821799	0.146357476779315	0.0487881475188515	0.101096105025895
0.384	1.309E-02	6.546E-03	-0.043	-0.021411764705882	0.0479834169739741	0.000	-0.0034602	0.00346020761245882	0.0489743314663357	0.112417635648787
0.400	1.236E-02	6.182E-03	-0.046	-0.023	0.0509823805348475	-0.168	-0.0836397	0.187435222554588	0.048799002647428	0.133393149515947
0.417	1.164E-02	5.819E-03	-0.042	-0.021	0.0474312104334624	0.192	0.082	0.209284018380794	0.048799002647428	0.143831299021275
0.434	1.091E-02	5.455E-03	-0.043	-0.021	0.0479834169739741	-0.035	-0.003	0.0347746561284434	0.048799002647428	0.143831299021275
0.450	1.018E-02	5.091E-03	-0.046	-0.023	0.0509823805348475	-0.168	-0.084	0.187435222554588	0.0488866064632672	0.138567267507777
0.467	9.455E-03	4.728E-03	-0.043	-0.021	0.0476940218809799	0.175	0.082	0.1934919238403	0.0488339858957651	0.129554801944201
0.484	8.728E-03	4.364E-03	-0.043	-0.021	0.0478255552714678	-0.007	-0.003	0.00773725943771491	0.0477817108079718	0.067076394426005
0.501	8.001E-03	4E-03	-0.043	-0.021411764705882	0.0478255552714678	0.000	0	0	0.048831245637811	0.065457573966363
0.517	7.273E-03	3.637E-03	-0.046	-0.0226875	0.0508426263704974	-0.171	-0.0797334	0.188635462461374	0.048831245637811	0.122058240416183
0.534	6.546E-03	3.273E-03	-0.043	-0.021	0.0478255552714678	0.161	0.0750432	0.177539258787175	0.048831245637811	0.122058240416183
0.551	5.819E-03	2.909E-03	-0.043	-0.021	0.0478255552714678	0.000	0.000	0	0.048831245637811	0.122058240416183
0.567	5.091E-03	2.546E-03	-0.046	-0.023	0.0508426263704974	-0.171	-0.080	0.188635462461374	0.048831245637811	0.122058240416183
0.584	4.364E-03	2.182E-03	-0.043	-0.021	0.0478255552714678	0.161	0.075	0.177539258787175	0.048831245637811	0.122058240416183
0.601	3.637E-03	1.818E-03	-0.043	-0.021	0.0478255552714678	0.000	0.000	0	0.048831245637811	0.122058240416183
0.617	2.909E-03	1.455E-03	-0.046	-0.023	0.0508426263704974	-0.171	-0.080	0.188635462461374	0.048831245637811	0.122058240416183
0.634	2.182E-03	1.091E-03	-0.043	-0.021	0.0478255552714678	0.161	0.075	0.177539258787175	0.0488286129438489	0.12240426117743
0.651	1.455E-03	7.273E-04	-0.043	-0.021	0.0478176571895816	0.000	0.001	0.00103806228374118	0.0488286033400691	0.122547415491226
0.667	7.273E-04	3.637E-04	-0.045	-0.023	0.050842597559158	-0.170	-0.083	0.189064925402763	0.0488312316206884	0.122371611927177
0.684	8.882E-16	0.000	-0.043	-0.021	0.0478334401133257	0.159	0.078	0.177011848095026	0.0488364925953009	0.122025591167979
0.701	-7.273E-04	-3.637E-04	-0.043	-0.021	0.0478334401134191	-0.000	0.000	0.000000000006147058	0.0488364925953009	0.121695645565427
0.717	-1.455E-03	-7.273E-04	-0.045	-0.023	0.050842597559158	-0.169	-0.083	0.188075088595107	0.0488312316207196	0.122006182601285
0.734	-2.182E-03	-1.091E-03	-0.043	-0.021	0.0478176571895816	0.160	0.078	0.177943459202601	0.0488286033400691	0.122352203360483
0.751	-2.909E-03	-1.455E-03	-0.043	-0.021	0.0478255552714678	0.000	-0.001	0.00103806228374118	0.0488286129438489	0.122538994649239
0.767	-3.637E-03	-1.818E-03	-0.046	-0.023	0.0508426263704974	-0.171	-0.080	0.188635462461374	0.048831245637811	0.12240426117743
0.784	-4.364E-03	-2.182E-03	-0.043	-0.021	0.0478255552714678	0.161	0.075	0.177539258787175	0.048831245637811	0.122058240416183
0.801	-5.091E-03	-2.546E-03	-0.043	-0.021	0.0478255552714678	0.000	0.000	0	0.048831245637811	0.122058240416183
0.817	-5.819E-03	-2.909E-03	-0.046	-0.023	0.0508426263704974	-0.171	-0.080	0.188635462461374	0.048831245637811	0.122058240416183
0.834	-6.546E-03	-3.273E-03	-0.043	-0.021	0.0478255552714678	0.161	0.075	0.177539258787175	0.048831245637811	0.122058240416183
0.851	-7.273E-03	-3.637E-03	-0.043	-0.021	0.0478255552714678	0.000	0.000	0	0.0478343313952522	0.060810910440447
0.868	-8.001E-03	-4E-03	-0.043	-0.021352941176470	0.0478518836428211	-0.003	0.0034602	0.00489347253416589	0.0488306971300745	0.0633787662446106
0.884	-8.728E-03	-4.364E-03	-0.045	-0.02275	0.0508146524759345	-0.163	-0.0873161	0.185242826199666	0.0488306971300745	0.121988515351802
0.901	-9.455E-03	-4.728E-03	-0.043	-0.021	0.0478255552714678	0.157	0.0787197	0.175829247321574	0.0487780765427941	0.122936444319652
0.918	-1.018E-02	-5.091E-03	-0.043	-0.021	0.0476940218809799	0.007	0.003	0.00773725943771491	0.0488339858957651	0.129717225279869
0.934	-1.091E-02	-5.455E-03	-0.046	-0.023	0.0509823805348475	-0.186	-0.087	0.205585169080319	0.0488866064632672	0.129910683248627
0.951	-1.164E-02	-5.819E-03	-0.043	-0.021	0.0479834169739741	0.158	0.079	0.176409621227847	0.048799002647428	0.138923148812203
0.968	-1.236E-02	-6.182E-03	-0.042	-0.021	0.0474312104334624	0.035	0.003	0.0347746561284434	0.048799002647428	0.144516182295295
0.984	-1.309E-02	-6.546E-03	-0.046	-0.023	0.0509823805348475	-0.205	-0.087	0.222364269529594	0.048799002647428	0.144516182295295
1.001	-1.382E-02	-6.91E-03	-0.043	-0.021411764705882	0.0479834169739741	0.158	0.0787197	0.176409621227847	0.0489743314663357	0.134078032789967
1.018	-1.455E-02	-7.273E-03	-0.043	-0.021352941176470	0.0479571968901854	0.000	0.0034602	0.00346020761245882	0.0487881475188515	0.111791549306109
1.034	-1.527E-02	-7.637E-03	-0.045	-0.023	0.050423828692395	-0.129	-0.0873161	0.155504819078022	0.0487881475188515	0.101135991072799
1.051	-1.6E-02	-8.001E-03	-0.04294117647	-0.021	0.0479834169739741	0.121107	0.079	0.144442946527917	0.0487881475188515	0.101135991072799
1.068	-1.673E-02	-8.364E-03	-0.04294117647	-0.021	0.0479571968901854	0	0.003	0.00346020761245882	0.0489743314663357	0.11233585387265
1.084	-1.746E-02	-8.728E-03	-0.046	-0.023	0.0509823805348475	-0.167738	-0.087	0.189104407477575	0.0487990995157624	0.133504752791448
1.101	-1.818E-02	-9.092E-03	-0.042	-0.021	0.0474577211222542	0.192	0.079	0.207949643284309	0.0487990995157624	0.143942902296776
1.118	-1.891E-02	-9.455E-03	-0.043	-0.021	0.0479571968901854	-0.035	0.003	0.0347746561284434	0.0487990995157624	0.143942902296776
1.134	-1.964E-02	-9.819E-03	-0.046	-0.023	0.0509823805348475	-0.168	-0.087	0.189104407477575	0.0489481692621811	0.135053014678673
1.151	-2.037E-02	-1.018E-02	-0.043	-0.021	0.0479049303615105	0.158	0.089	0.181279980430002	0.0488351040676791	0.138978906750129
1.168	-2.109E-02	-1.055E-02	-0.042	-0.022	0.0476180013066792	0.035	-0.031	0.0465523323428103	0.0478006052581218	0.0922556793714793
1.185	-2.182E-02	-1.091E-02	-0.043	-0.021	0.0478788841061756					