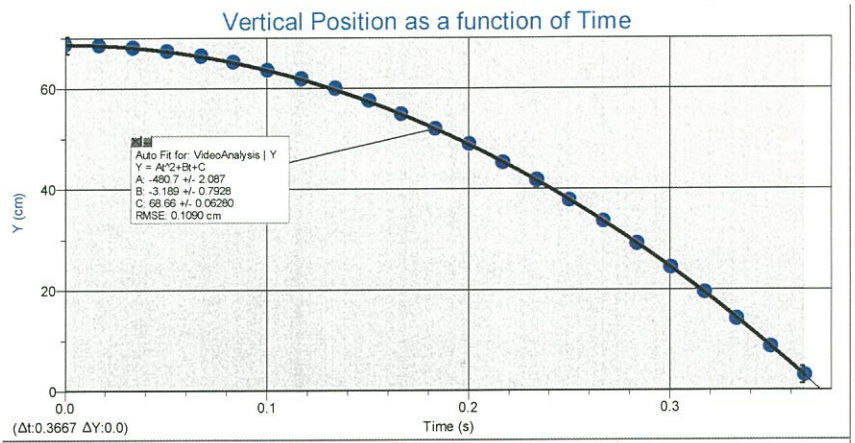
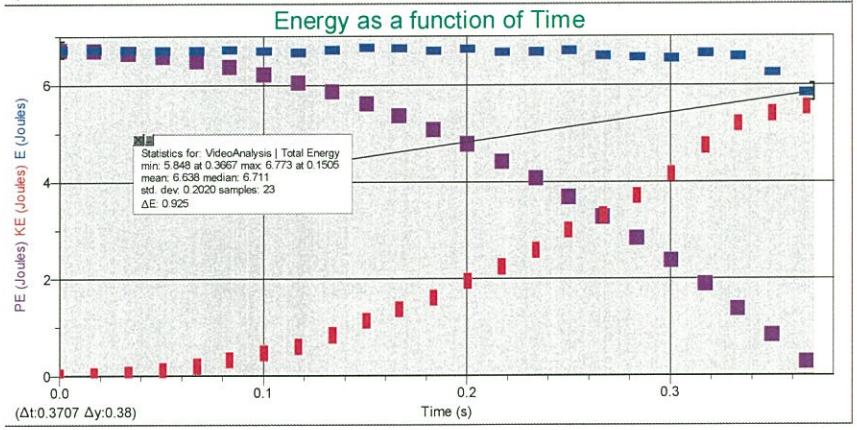
VideoAnalysis

	Time (s)	X (cm)	Y (cm)	X Velocity (cm/s)	Y Velocity (cm/s)	Potential Energy (Joules)	Kinetic Energy (Joules)	Total Energy (Joules)
1	0	65.22	68.59	-2.590	-15.280	6.722	0.012	6.733
2	0.01682	65.14	68.43	-0.712	-23.761	6.706	0.028	6.735
3	0.03364	65.22	67.96	-0.702	-35.653	6.660	0.064	6.724
4	0.05046	65.14	67.26	-1.820	-49.484	6.591	0.122	6.714
5	0.06728	65.14	66.32	-1.982	-65.795	6.499	0.216	6.715
6	0.08326	65.06	65.14	-1.326	-84.017	6.384	0.353	6.737
7	0.1001	65.06	63.49	0.904	-98.823	6.222	0.488	6.711
8	0.1169	65.14	61.77	0.382	-111.425	6.053	0.621	6.674
9	0.1337	65.14	59.89	-3.509	-130.997	5.869	0.858	6.727
10	0.1505	64.99	57.38	-5.682	-151.679	5.623	1.150	6.773
11	0.1665	64.91	54.79	-5.141	-166.821	5.369	1.391	6.761
12	0.1834	64.83	51.89	-4.949	-180.234	5.085	1.624	6.709
13	0.2002	64.75	48.83	-5.195	-198.153	4.785	1.963	6.748
14	0.2170	64.67	45.14	-6.377	-212.642	4.424	2.261	6.685
15	0.2338	64.51	41.69	-6.597	-228.262	4.086	2.605	6.691
16	0.2498	64.44	37.69	-5.665	-245.695	3.694	3.018	6.712
17	0.2666	64.36	33.54	-5.853	-257.964	3.287	3.327	6.614
18	0.2834	64.20	29.07	-4.155	-273.088	2.849	3.729	6.578
19	0.3003	64.20	24.36	-1.833	-288.826	2.388	4.171	6.559
20	0.3171	64.20	19.42	-2.504	-308.464	1.904	4.758	6.661
21	0.3331	64.12	14.17	-3.491	-322.867	1.389	5.212	6.601
22	0.3499	64.04	8.681	-2.612	-329.078	0.851	5.415	6.265
23	0.3667	64.04	3.035	-1.304	-333.189	0.297	5.551	5.848
24								





Point #10:

$m = 1.0\ kg$.

$PE = mgy = (1.0)(9.80)(0.5738) = 5.623\ J$ ✓

$KE = \frac{1}{2}mv_y^2 = \frac{1}{2}(1.0)(-1.51679)^2 = 1.150\ J$ ✓

$U = KE + PE = 6.773\ J$ ✓

Miller Big monitor analysis! (1) 10/24/2013 13:43:21

$A = -480.7\ cm/s^2$

$g = 2A = -961.4\ cm/s^2$ (2% low)

% diff (<Total E>, min Tot E) = (13%)