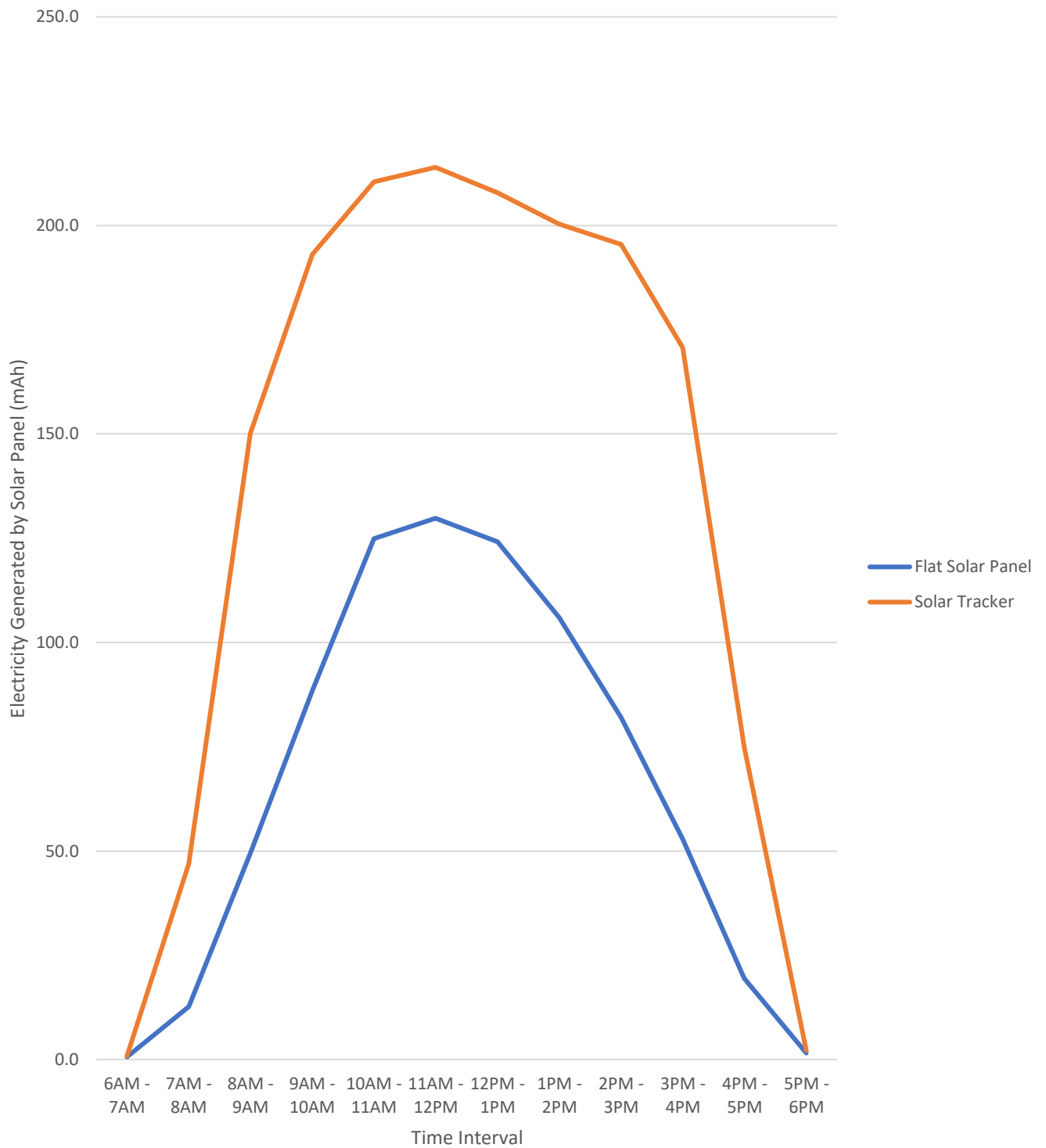
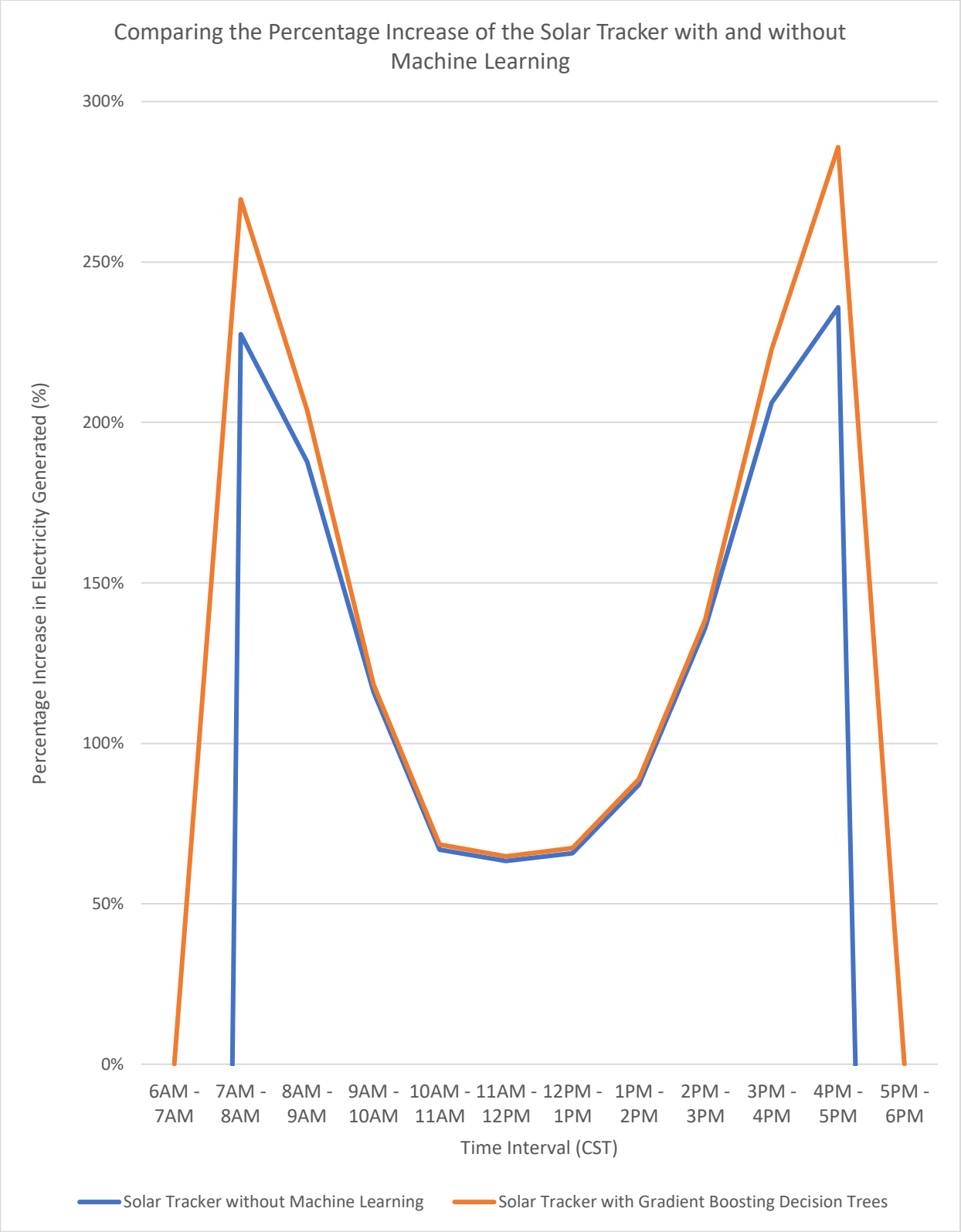


Comparing the Electricity Generated by the Solar Tracker and a Flat Solar Panel



Graph created by Experimenter A on 12/1/20 using MS Excel



Graph created by Experimenter A on 12/1/20 using MS Excel

Data Table #1 - Solar Tracker without Machine Learning

Increasing the Electricity Generated by an Intelligent Dual-Axis Solar Tracker													
	Net Electricity Generated (mAh) - Energy Consumption of Robot is Subtracted												Percentage Increase in Electricity Generated Using the Solar Tracker without Solar Panels
	Flat Solar Panel						Solar Tracker without Machine Learning						
Time Interval (CST)	11/7/20	11/9/20	11/12/20	11/16/20	11/17/20	Average	11/7/20	11/9/20	11/12/20	11/16/20	11/17/20	Average	
6AM - 7AM	0.6	0.8	0.6	0.6	0.5	0.6	-8.9	-8.8	-9.4	-9.3	-9.4	-9.2	-1577%
7AM - 8AM	13.7	13.9	13.4	11.2	11.3	12.7	46.0	45.2	44.3	34.2	38.3	41.6	228%
8AM - 9AM	49.2	50.3	50.3	48.4	49	49.4	142.3	143.0	144.3	139.7	142.0	142.3	188%
9AM - 10AM	92.3	94.5	93.4	80.4	82	88.5	193.6	193.9	192.3	190.3	185.5	191.1	116%
10AM - 11AM	127.6	126.2	128.2	120.3	122.2	124.9	213.5	211.2	208.2	198.1	211.4	208.5	67%
11AM - 12PM	130.4	132.3	130.2	128.6	127.4	129.8	213.9	213.2	214.3	204.6	213.6	211.9	63%
12PM - 1PM	126	124.5	128.1	120.1	122.2	124.2	208.4	205.4	207.0	200.1	208.3	205.8	66%
1PM - 2PM	105	105.3	109.3	103.4	107.3	106.1	201.1	199.2	200.3	193.3	197.8	198.3	87%
2PM - 3PM	83.4	84.5	85.2	80.2	76.4	81.9	197.5	193.6	193.7	188.2	194.3	193.5	136%
3PM - 4PM	56.2	55.2	53.1	49.8	50	52.9	156.9	162.3	168.3	160.2	161.5	161.8	206%
4PM - 5PM	19.3	20.6	20	18.2	18.9	19.4	70.2	68.2	63.3	60.5	63.6	65.2	236%
5PM - 6PM	1.7	1.8	1.7	1.3	1.2	1.5	-8.7	-8.5	-9.0	-9.0	-8.6	-8.8	-669%

Data Table created by Experimenter A on 12/1/20 using MS Excel

Data Table #2 - Solar Tracker with Machine Learning

Increasing the Electricity Generated by an Intelligent Dual-Axis Solar Tracker													
	Net Electricity Generated (mAh) - Energy Consumption of Robot is Subtracted												Percentage Increase in Electricity Generated Using the Solar Tracker with Gradient Boosting Decision Trees
	Flat Solar Panel						Solar Tracker Using Gradient Boosting Regression						
Time Interval (CST)	11/7/20	11/9/20	11/12/20	11/16/20	11/17/20	Average	11/7/20	11/9/20	11/12/20	11/16/20	11/17/20	Average	
6AM - 7AM	0.6	0.8	0.6	0.6	0.5	0.6	0.6	0.8	0.6	0.6	0.5	0.6	0%
7AM - 8AM	13.7	13.9	13.4	11.2	11.3	12.7	48.4	49.4	50.2	42.4	44.3	46.9	270%
8AM - 9AM	49.2	50.3	50.3	48.4	49	49.4	153.3	149.9	150.2	148.7	148.6	150.1	204%
9AM - 10AM	92.3	94.5	93.4	80.4	82	88.5	195.6	195.9	194.3	192.3	187.5	193.1	118%
10AM - 11AM	127.6	126.2	128.2	120.3	122.2	124.9	215.5	213.2	210.2	200.1	213.4	210.5	69%
11AM - 12PM	130.4	132.3	130.2	128.6	127.4	129.8	215.9	215.2	216.3	206.6	215.6	213.9	65%
12PM - 1PM	126	124.5	128.1	120.1	122.2	124.2	210.4	207.4	209	202.1	210.3	207.8	67%
1PM - 2PM	105	105.3	109.3	103.4	107.3	106.1	203.1	201.2	202.3	195.3	199.8	200.3	89%
2PM - 3PM	83.4	84.5	85.2	80.2	76.4	81.9	199.5	195.6	195.7	190.2	196.3	195.5	139%
3PM - 4PM	56.2	55.2	53.1	49.8	50	52.9	168.9	170.3	174.3	170.2	169.5	170.6	223%
4PM - 5PM	19.3	20.6	20	18.2	18.9	19.4	80.4	77.8	65.3	75.3	75.4	74.8	286%
5PM - 6PM	1.7	1.8	1.7	1.3	1.2	1.5	1.7	1.8	1.7	1.3	1.2	1.5	0%

Data Table created by Experimenter A on 12/1/20 using MS Excel