

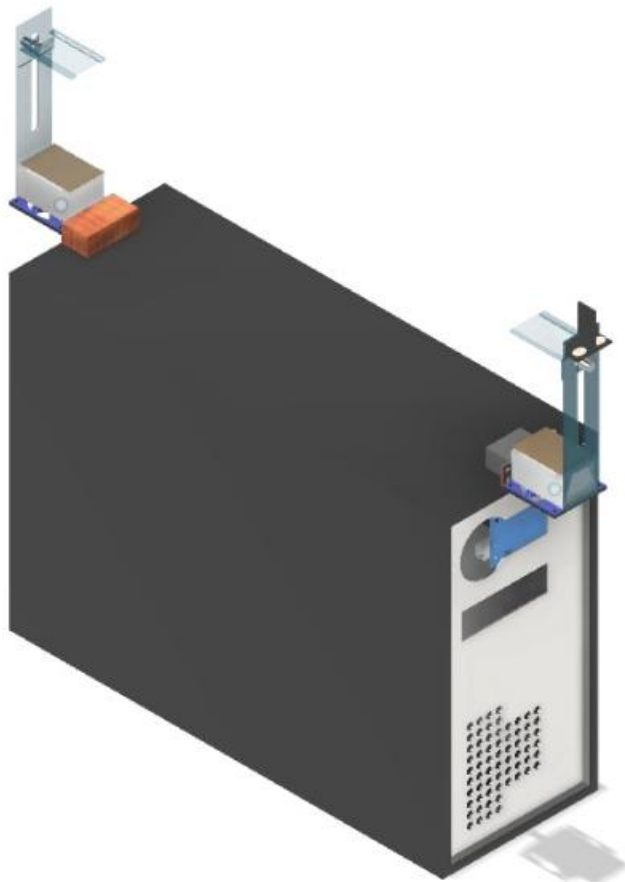
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LAMPIRAN

Lampiran A Desain Alat Penelitian



Lampiran 1 Desain Alat Penelitian

Lampiran B Dokumentasi



Lampiran 2 Proses Perakitan Alat



Lampiran 3 Proses Instalasi Kabel



Lampiran 4 Proses Penyusunan Algoritma *Solar Tracker*



Lampiran 5 Proses Pengambilan Data

Lampiran C Data Penelitian

Lampiran 6 Pengambilan Data Perbandingan Temperatur Lingkungan (TL) terhadap Temperatur Permukaan Atas Pelat Kolektor (T1)

ΔH	METODE	VARIABEL	WAKTU										
			1	2	3	4	5	6	7	8	9	10	11
11 cm	SOLAR TRACKER	TL	28.907202	31.2094645	33.604685	34.6321034	33.8290955	34.472615	35.1353551	35.4177651	35.3802955	34.4533382	32.9501087
		T1	34.021722	44.8347089	45.07321	45.4637182	43.1077724	40.3914409	40.0643272	41.2516652	41.2887287	39.6162473	33.0218448
	PASIF	TL	28.907202	31.2094645	33.604685	34.6321034	33.8290955	34.472615	35.1353551	35.4177651	35.3802955	34.4533382	32.9501087
		T1	34.397482	39.681695	40.842356	42.8410301	39.3215505	38.3078234	37.9613035	39.5367778	39.3586271	36.3616108	33.6321176
13 cm	SOLAR TRACKER	TL	29.207288	30.9631201	32.923304	34.4900444	35.3688428	34.5419691	34.2385422	34.6739568	34.6748931	34.5773298	32.8498284
		T1	34.88	47.156494	45.627956	46.4710377	47.2323401	43.4354918	43.387202	43.3046558	37.1189144	41.3274571	33.5184452
	PASIF	TL	29.207288	30.9631201	32.923304	34.4900444	35.3688428	34.5419691	34.2385422	34.6739568	34.6748931	34.5773298	32.8498284
		T1	35.02711	39.3485807	39.396731	42.0479382	43.4267366	38.7851244	39.8523465	39.3812253	36.6449476	36.3916274	33.5784057
15 cm	SOLAR TRACKER	TL	29.846729	31.7192389	32.800647	34.7252734	35.4477423	33.8744094	34.6648077	35.0045283	34.4244178	34.2755651	34.9201989
		T1	35.593104	46.7113347	45.156984	46.6023666	45.6040579	42.1840413	43.8890218	44.8039543	42.6926705	39.2934115	32.5297622
	PASIF	TL	29.846729	31.7192389	32.800647	34.7252734	35.4477423	33.8744094	34.6648077	35.0045283	34.4244178	34.2755651	34.9201989
		T1	35.264559	39.6384938	39.021063	41.5441908	40.4977346	38.3140047	40.5365015	40.1140711	39.1356982	36.2895895	32.6257358

Lampiran 7 Pengambilan Data Perbandingan Intensitas Matahari (Isun) terhadap Tegangan (V)

ΔH	METODE	VARIABEL	WAKTU								
			1	2	3	4	5	6	7	8	9
11 cm	SOLAR TRACKER	Isun	1220.15	1280.65	1233.8	1165.55	1115.05	1115.25	1168.45	1084.45	761.25
		V	0.03794	0.040646	0.040847	0.0317471	0.0268513	0.0225605	0.024493	0.0211505	0.011876
	PASIF	Isun	659.5	972.75	1132.6	1138.2	1060.7	960.65	857.85	632.75	346.65
		V	0.024705	0.034394	0.03646	0.0301533	0.0250378	0.0184867	0.0199741	0.0170664	0.005929
13 cm	SOLAR TRACKER	Isun	1172.3	1254.2	1333	1300.35	1279.4	1254.95	1180.55	739.63333	712.15
		V	0.044595	0.043849	0.041308	0.039309	0.0358616	0.0328963	0.0302099	0.0081121	0.011683
	PASIF	Isun	609.65	878.75	1172.1	1267.2	1179.25	1021.9	793.8	410.8	313.65
		V	0.020224	0.031322	0.035709	0.0391074	0.0281679	0.030744	0.0226415	0.0053298	0.00485
15 cm	SOLAR TRACKER	Isun	1262.75	1312.75	1324.3	1329.05	1325.2	1302.95	1237.85	1151.7	885.15
		V	0.035104	0.038098	0.047445	0.0430272	0.0369886	0.0307473	0.0266205	0.0250654	0.012754
	PASIF	Isun	688.35	933.45	1173.75	1303.5	1281.25	1113.35	857.55	622.2	302.55
		V	0.019227	0.026952	0.034591	0.038503	0.0259451	0.0274661	0.0236417	0.0204078	0.005696

Lampiran 8 Pengambilan Data Perbandingan Beda Temperatur (ΔT) terhadap Tegangan (V)

ΔH	METODE	VARIABLE	WAKTU										
			1	2	3	4	5	6	7	8	9	10	11
11 cm	SOLAR TRACKER	ΔT	1.994441	5.005019	5.358463	5.5763296	4.4589041	3.9759395	3.4800159	3.8963937	2.914851	2.035553	-0.157527
		V	0.017173	0.03794	0.040646	0.0408474	0.0317471	0.0268513	0.0225605	0.024493	0.02115	0.011876	-0.001273
	PASIF	ΔT	2.354019	2.858592	4.871379	5.1296987	4.0282364	3.4786515	3.035986	3.2684212	2.640572	1.152509	0.0134114
		V	0.01754	0.024705	0.034394	0.0364598	0.0301533	0.0250378	0.0184867	0.0199741	0.017066	0.005929	-0.001324
13 cm	SOLAR TRACKER	ΔT	1.867215	6.245979	6.162908	5.9418703	5.9063518	5.157742	5.0247105	3.9106378	1.278351	1.773816	-0.1396
		V	0.009173	0.044595	0.043849	0.0413083	0.039309	0.0358616	0.0328963	0.0302099	0.008068	0.011683	-0.000655
	PASIF	ΔT	1.96366	2.982794	4.828223	5.4981904	5.8752709	3.8520418	4.4807594	3.223301	1.181561	1.205621	0.1263373
		V	0.012396	0.020224	0.031322	0.0357091	0.0391074	0.0281679	0.030744	0.0226415	0.00533	0.00485	-0.000562
15 cm	SOLAR TRACKER	ΔT	2.139487	5.379998	5.632155	6.4073279	6.2383451	5.4702502	4.9600439	3.9634765	3.603683	1.235953	-0.012551
		V	0.014525	0.035104	0.038098	0.047445	0.0430272	0.0369886	0.0307473	0.0266205	0.025065	0.012754	-0.001282
	PASIF	ΔT	2.253657	2.787689	4.313717	5.4273846	5.9495881	3.9110486	3.9583227	3.2677708	2.828778	1.116931	0.1273217
		V	0.014253	0.019227	0.026952	0.0345914	0.038503	0.0259451	0.0274661	0.0236417	0.020408	0.005696	-0.001564

Lampiran 9 Pengambilan Data Perbandingan Daya (P) terhadap Efisiensi (η)

ΔH	METODE	VARIABLE	WAKTU										
			1	2	3	4	5	6	7	8	9	10	11
11 cm	SOLAR TRACKER	P	0.0000686	0.0003348	0.0003842	0.0003880	0.0002344	0.0001677	0.0001184	0.0001395	0.0001040	0.0000328	0.0000004
		η	0.003439%	0.006613%	0.007075%	0.006861%	0.005221%	0.004200%	0.003394%	0.003569%	0.003563%	0.001613%	-0.000240%
	PASIF	P	0.0000655	0.0001299	0.0002517	0.0002828	0.0001935	0.0001334	0.0000727	0.0000849	0.0000620	0.0000075	0.0000004
		η	0.002781%	0.004530%	0.005127%	0.005462%	0.004778%	0.003824%	0.002394%	0.002595%	0.002347%	0.000650%	0.000487%
13 cm	SOLAR TRACKER	P	0.0000196	0.0004625	0.0004471	0.0003968	0.0003593	0.0002991	0.0002517	0.0002122	0.0000153	0.0000317	0.0000001
		η	0.001050%	0.007280%	0.007142%	0.006584%	0.006006%	0.005743%	0.004970%	0.005394%	0.001199%	0.001791%	-0.000072%
	PASIF	P	0.0000327	0.0000870	0.0002087	0.0002713	0.0003254	0.0001688	0.0002011	0.0001091	0.0000060	0.0000050	0.0000001
		η	0.001667%	0.002914%	0.004298%	0.004891%	0.005476%	0.004363%	0.004463%	0.003377%	0.000513%	0.000416%	0.000053%
15 cm	SOLAR TRACKER	P	0.0000491	0.0002866	0.0003376	0.0005235	0.0004305	0.0003182	0.0002199	0.0001648	0.0001461	0.0000378	0.0000004
		η	0.002295%	0.005277%	0.005926%	0.008009%	0.006791%	0.005755%	0.004403%	0.004140%	0.004040%	0.003064%	-0.003051%
	PASIF	P	0.0000432	0.0000787	0.0001546	0.0002546	0.0003154	0.0001432	0.0001605	0.0001189	0.0000886	0.0000069	0.0000005
		η	0.001919%	0.002819%	0.003570%	0.004654%	0.005245%	0.003650%	0.004039%	0.003631%	0.003129%	0.000619%	0.000410%

Lampiran 10 Pengambilan Data Perbandingan Kecepatan Udara (v) terhadap Tegangan (V)

ΔH	METODE	VARIABEL	WAKTU								
			1	2	3	4	5	6	7	8	9
11 cm	SOLAR TRACKER	v	0.04	0.25	0.23	1.41	7.16	6.74	5.55	2.04	1.49
		V	0.03794	0.040646	0.040847	0.0317471	0.0268513	0.0225605	0.024493	0.0211505	0.011876
	PASIF	v	0.04	0.25	0.23	1.41	7.16	6.74	5.55	2.04	1.49
		V	0.024705	0.034394	0.03646	0.0301533	0.0250378	0.0184867	0.0199741	0.0170664	0.005929
13 cm	SOLAR TRACKER	v	0.06	0.01	0.57	1.04	1.26	3.05	5.07	5.12	1.03
		V	0.044595	0.043849	0.041308	0.039309	0.0358616	0.0328963	0.0302099	0.0081121	0.011683
	PASIF	v	0.06	0.01	0.57	1.04	1.26	3.05	5.07	5.12	1.03
		V	0.020224	0.031322	0.035709	0.0391074	0.0281679	0.030744	0.0226415	0.0053298	0.00485
15 cm	SOLAR TRACKER	v	0.17	0.12	0.84	1.39	2.56	4.32	4.24	1.16	3.42
		V	0.035104	0.038098	0.047445	0.0430272	0.0369886	0.0307473	0.0266205	0.0250654	0.012754
	PASIF	v	0.17	0.12	0.84	1.39	2.56	4.32	4.24	1.16	3.42
		V	0.019227	0.026952	0.034591	0.038503	0.0259451	0.0274661	0.0236417	0.0204078	0.005696