

GLOSSARY

Refrigeration : The process of removing the heat of the space or substance, maintaining the temperature to achieve a temperature below ambient temperature, in order to preserve the substance or the contents inside the space.

Peltier module : A solid-state device that transfers heat from one side of the module to the other side of the module using Peltier effect, using electric current to activate the cooling or heating capability.

Heatsink : Component that functions to dissipate heat by increasing the surface area that is exposed to the surrounding environment, thus enabling the reduction of temperature of electronic or mechanical device.

Thermal paste : a substance that improves heat transfer between heatsink and heat-generating component by filling gaps and air pockets on a microscopic level, thus ensuring efficient thermal conductivity.

REFERENCES

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Rahman, M.A. *et al.* (2019) 'Peltier thermoelectric refrigeration system as the future cold storage system for indonesia: A review', *Proceedings - 2019 5th International Conference on Science and Technology, ICST 2019* [Preprint], (August 2020). Available at: <https://doi.org/10.1109/ICST47872.2019.9166392>.

Patel, Jatin *et al.* (2016) 'Improvement In The COP Of Thermoelectric Cooler', *International Journal of Scientific & Technology Research*, 5(05), p. 5. Available at: www.ijstr.org.

Fairuz Remeli, M. *et al.* (2020) 'Experimental study of a mini cooler by using Peltier thermoelectric cell', *IOP Conference Series: Materials Science and Engineering*, 788(1). Available at: <https://doi.org/10.1088/1757-899X/788/1/012076>.

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APPENDIX

Number	Component Name	Quantity	Price	Total	Link
1	Krisbow locker 6 doors single column	1	Given by Sir Leonard	-	-
2	Peltier Module TEC1 - 12706	1	IDR 32,500.00	IDR 32,500.00	https://tokopedia.link/2pfVjksHABb
3	Peltier Module TEC1 - 12710	1	IDR 47,000.00	IDR 47,000.00	https://tokopedia.link/kz2VslXGABb
4	Deepcool Ice Edge Mini FS V2.0	1	IDR 105,000.00	IDR 105,000.00	https://tokopedia.link/XXeAtQYHABb
5	Peltier Cooling System Kit	1	IDR 100,000.00	IDR 100,000.00	https://tokopedia.link/l8df5kjlABb
6	Step Down Module XL4016	1	IDR 41,750.00	IDR 41,750.00	https://tokopedia.link/jAP3xFZGABb
7	Step Down Module SZBK07	1	IDR 83,000.00	IDR 83,000.00	https://tokopedia.link/dsxNjm9GABb
8	Cooler Master Mastergel Regular	3	IDR 58,000.00	IDR 174,000.00	https://tokopedia.link/HB5mLv5GABb
9	Power Supply 24V 30A	1	IDR 215,000.00	IDR 215,000.00	https://tokopedia.link/iBagPXoHABb
10	Terminal Block TB-250 8L	1	Borrowed From Workshop	-	-
11	Arduino UNO R3	1	IDR 119,000.00	IDR 119,000.00	https://tokopedia.link/gr2QVP6HABb
12	DS18B20 Temperature Sensor	1	IDR 10,500.00	IDR 10,500.00	https://tokopedia.link/dnqkgjOHABb
13	4,7kΩ Resistor	1	Borrowed From Workshop	-	-
14	Styrofoam Box	2	IDR 38,000.00	IDR 76,000.00	https://tokopedia.link/gBxUjlzHABb
15	Aluminium Foil Insulation Foam Roll	1	Borrowed From Michael D.	-	-
16	Mini Digital Thermometer	2	IDR 9,000.00	IDR 18,000.00	https://tokopedia.link/WYbDEDfHABb
17	HTC-2 Termometer Hygrometer Ruangan	1	IDR 34,675.00	IDR 34,675.00	https://tokopedia.link/MeYDCIMHABb
18	Mini Breadboard 8.5x5.5 cm	1	IDR 15,500.00	IDR 15,500.00	https://tokopedia.link/IMeCl3SHABb
			TOTAL	IDR 1,071,925.00	

CURRICULUM VITAE

**PATRICK
FERNANDO**



Personal Information

Date of Birth/Place : November 18, 2000, Jakarta
Nationality : Indonesian
Mobile Phone : 0812811181090
E-mail Address : patriiklimfernando@gmail.com

Skills

- Technical skills
- Mechanical skills
- Computer skills
- Fast learner
- Time management

Work Experience

ATMI, Cikarang

July 2019 - August 2019

Technician Trainee

- Industrial training
- Learned & managed to do the Conventional Milling & Turning
- Learned & managed to do CNC Program
- Learned & managed to do how to the process of welding, safety technique, and bench work

PT. Global Pelangi Plasindo, Tangerang

September 2019 - November 2019

Technician Intern

- Learned & managed to do the process of plastic injection molding machine
- Polite, well dressed, and efficient with the tasks
- Managed good communication with the supervisor

Deutsche E-Bike Akkuservice, Germany

March 2021 - August 2021

Technician Intern

- Learned & managed to do the process of battery power-pack producing
- Learned & managed to do the battery cells replacement
- Learned & managed to do BMS checking & replacement
- Managed to do all the tasks in German language
- Managed good communication with the owner and supervisor

Education

Swiss German University (Indonesia)

Aug 2018 - Jul 2022

Bachelor's Degree in Mechatronics

Language Skills

- Indonesian : Mother language
 - English : Fluent
 - German : Basic
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Technology Skills

- Microsoft Word
- Microsoft PowerPoint
- Microsoft Excel
- Arduino IDE
- Fritzing
- Solidworks

