

**Performa Alat Pendingin Kotak Minuman *Dump Truck Portable*  
Menggunakan Elemen *Peltier Tipe TEC1-12706* (*Portable  
Dump Truck Beverage Box Cooling Equipment Performance  
Using Peltier Element Type TEC1-12706*). Pembimbing  
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***ABSTRACT***

*Cooling systems have an important role in daily life, especially in tropical Indonesia. Cooling systems can be found near every home on appliances such as refrigerators, air conditioners, freezers and dispensers. It is necessary to consider cooling systems without the use of refrigerants in an effort to reduce global warming by using thermoelectric systems (peltier elements). The objectives in this study are expected to solve the problem of truckers by making portable beverage box coolers that can be used as one of accessories options to cool drink. The results of the study, a cooling device equipped with a temperature control device with no temperature control and no cooling load has a power consumption difference of 0.143 kwh with the lowest cooling room temperature of 10°C or 283K at 36:30 minutes with an environmental temperature of 30°C or 303K testing for 120 minutes with a time interval every 5 minutes. Lowest temperature of tool test results when with a 1 liter mineral water cooling load for 120 minutes with a temperature control of 12.5°C or 285K. Copper water block equipped with radiator in heat absorption and heat disposal has a temperature difference between the cold side and the cooling room of 0.1°C which indicates the cooling device works more effectively. With the addition of temperature control the cooler works more efficiently.*

***Keywords:*** *peltier, thermoelectric, cooler, beverage cooler*