# The Frozen Iron Machine

Al Kindi, Israa (School: Um Waraqah Al Ansaryah (8-10))
Al Yahmadi, Arwa (School: Um Waraqah Al Ansaryah (8-10))

Abstract The Frozen Iron machine The idea of the project is an iron working at very low temperatures to reduce accidents that can happen from ordinary iron. It is lightweight and can be battery-operated or by using solar energy. The notion came from accidents and burn injuries due to ordinary iron. These accidents can happen due to the extreme temperature of ordinary iron since it takes a longer time to cool. In addition, Ironing cloth while traveling and carrying the device can be a challenging task. To test the idea, we put a piece of tin in the refrigerator for a period of time ranging from 26 hours to 28 hours. Then we passed the piece of tin on a piece of crumpled fabric and noticed that the iced tin can iron clothing. To find a practical solution to produce low temperature, A thermoelectric generator was used to test the hypothesis. The device was assembled and tested for effectiveness. Data were collected to establish the correlation between the variables through the operation of the device, and Measuring the appropriate temperature to iron different types of fabrics. The Frozen Iron machine was tested on different types of fabrics with encouraging results. The lower temperatures reading produced better results during testing. The frozen iron machine can be a safer alternative to regular ironing device with lower risks of household injuries.

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