

## PORTABLE MINI -AIR CONDITIONER (IDT - B3)

### Problem Statement

With rising temperatures, the need for efficient cooling is increasing. However, using a 20,000 BTU air conditioner in a small room for one or two people wastes energy and raises costs. To address this, we propose a compact, energy-efficient portable AC designed for targeted cooling. It provides comfort without the heavy power use, high expense, or oversized capacity of larger units, offering a practical solution for personal spaces. This portable system reduces electricity bills, lowers environmental impact, and ensures quick cooling where needed.

### Project Team



ASR FALCONS

### Team Members

Ritesh  
Sumit

Siddhika  
Aryan

### Solution

We propose developing a compact, energy-efficient portable AC to replace the large 20,000 BTU units commonly used in single rooms. This design focuses on cooling small spaces for one or two people while using far less electricity than traditional models. The system aims to reduce energy consumption, lower operating costs, and provide a more sustainable alternative to bulky room coolers. Its portable structure makes it easy to move, install, and maintain without requiring major setup. By combining advanced cooling technology with a smaller form factor, the unit offers reliable comfort without excessive power use. This solution is ideal for households, hostels, offices, and compact living areas that do not need full-scale cooling systems and prefer a cost-effective, eco-friendly option.

