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Reflection for Patent Search Report

1. What insights did you gain while completing your patent search report? Did the process help validate the relevance of your research topic? In your opinion, how important is it to conduct a patent search at this stage? Do you believe your concept is patentable? Why or why not? Provide a written explanation to defend your topic, clearly describing its unique features and potential impact. Identify any significant innovations it presents. Additionally, discuss existing research gaps and outline your proposed action plan following the results of your patent search. Your responses are expected to be thoughtful and sincere.
    i. In the course, I have gained knowledge of the basics of Intellectual Property and its various forms, including patents, utility models, industrial designs, trademarks, trade secrets etc.,. Another knowledge that I acquired is the categorization of goods and services and the conduct of patent searching. This is the important information that every person who is going to invent and launch something into the world will want to learn to save their rights as developers. In a world where other people might persist in attempting to steal or misuse the original work, it is important to protect it through patenting, which is an essential IP right. It serves as legal evidence of ownership and enables the innovator to profit from the use of their invention by other people.
    ii. The use of patent search was very beneficial compared to the idea of simply following the idea without any prior understanding and realization of whether such an idea already existed with a similar patent or not. Mostly, because we were exposed to a vast array of existing solutions and innovations. This was something that brought up new ideas and even encouraged us to view other methods that we could apply in our design. Using prior art, we could establish gaps and where improvement needs to be worked on, and this made our project stronger due to the originality and value it has.
    iii. The E.C.O. Bin is an intelligent, automated waste handling system that uses artificial intelligence and sensor technology, which incorporates the Internet of Things to make the system more efficient in separating garbage. The very nature of the combination of technologies, along with their real-life implementation in the educational and urban environment, gives the system a high patent protection capacity. It is based on a self-learning AI model, multi-sensor fusion, real-time feedback connection, automated maintenance reminders, and self-sustaining energy in a solar setup. The product facilitates Sustainable Development Goals and is designed to be implemented in schools and small institutions.