

2002 TAIWAN INTERNATIONAL SCIENCE FAIR

CATEGORY : Engineering

PROJECT TITLE : The Free-D Elevator System

AWARD : Third Award

SCHOOL : Raimondi College

FINALISTS : 張家豪 CHEUNG KA HO

梁顯宏 LEUNG HOO WANG

COUNTRY : Hong Kong

ABSTRACT OF EXHIBIT

TAIWAN INTERNATIONAL SCIENCE FAIR

CATEGORY : Engineering

TITLE : The Free-D Elevator System (磁旋)

NAME : Cheung Ka Ho, Leung Hoo Wang

COUNTRY : Hong Kong, China

Contents of Abstract :

Miracles in life originate from daily life itself. What can be imagined can really be achieved.

Hong Kong, as an international city, is small in area and densely populated. To utilize space, tall buildings inevitably emerge.

Taking elevators has therefore become the daily routine of everyone of us. However, problems abound with the present elevator system. You have probably gone through the dreadful episode of waiting long for an elevator to come, and passage being interrupted by unreasonably frequent stops. Besides, it wastes space, since each elevator tube can only accommodate one elevator.

This is why our Free-D Elevator System will revolutionize the present one. It consists of a large cylindrical tube, which can be divided into several smaller, imaginary sector-shaped tubes. In each small tube a large number of elevators move vertically by magnetic levitation. The elevators can also rotate from one tube to another, thereby avoiding collision. This innovative design will substantially increase the number of available elevators for given space. Most importantly, it is highly feasible.

評 語

本項設計極具實用創新構想，對於磁力之應用也作了相當深入之考量，如能看到實體，則當更具理想。