HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

BIRD REPELLING DEVICE

EL. 1357

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Bird repelling device

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Project by Havvas Ioannis Z.

Year: 2003-2004

Class:3E2R

Dedicated to my FAMILY and the repeaters and to my

Grandfather Ioannis Gewrgiadis who is no longer with us He passed away on 08/06/2004. I will always keep him in my heart.

May his soul rest in peace.

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PART A1:

ACKNOWLEDGMENTS:

I would like first of all to thank my project supervisor Mr. Christos Marouchos and my external supervisor Mr. Nikos P.Arguris.

Specifically, Mr. Arguris has dedicated a lot of his spare time on helping me with my project.

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Finally, I would like to express my deepest gratitude to my parents for their understanding and financial support they gave me through out this period.

PART A2:

SUMMARY

This project deals with the methods and the construction of a bird repelling device that transmittes a range of frequencies that are annoying to birds which also includes a PIR presence detector which when it sets on it will switch on our device and a mechanical lever that will work for a fixed period of time.

This project is divided into two parts, the theoretical and the mechanical part.

The theory recalls problems of bird strikes to aircrafts which lead to fatalities like in U.S.A where it is estimated that bird strikes cost over $300.000.000 in damage to aircraft.

We will also make an overview to oscillator's theory and the optoelectronics theory about the presence detector.

The practical part will lead with a series of IC components related to audio functions along with proper components that will bring to conclusion the project.

It will also deal with the mechanical part which is a motor that will rotate on a 180 degrees plane along with small mirrors for reflection of the sun.
This mechanical device will be turned on by our PIR presence detector.