

DESIGN OF A TENNIS BALLS LAUNCHER .

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## A B S T R A C T .

This project deals with the design of a tennis balls launcher which will be used for training purposes from tennis players .

The project is divided into five main chapters :

The first one shows the balls and courts specifications on which the design of the machine should be based .

The second chapter shows different solutions for the two parts of design : a) LAUNCHING SYSTEM

b) TIMING SYSTEM

Then the selection of the best solution for each part of design is presented .

The third chapter deals with the design or selection of the various parts of the launching system .

The fourth chapter deals with the design or selection of the various parts of the timing system .

The fifth chapter deals with the design of the casing of the machine , that will give a good appearance to the machine and protection to the mechanical parts inside it .

The last chapter deals with the cost analysis of the machine and with maintenance procedure and with some instructions to the users .

Tables , references and drawings of the machine are attached at the end .

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