## PROJECT REPORT

## Of

## KEYBOARD

## PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Keyboard Manufacturing unit.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.
[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]

PROJECT AT A GLANCE


## KEYBOARD MANUFACTURING UNIT

## Introduction:

In order to communicate with the computer system we need some input device and an output device. Input device is used to feed data into the computer and output device is required by the computer to communicate the result to the user. Key board is an important part of the computer peripherals. It has provisions for both alphabetic as well as numeric entries. It is basically a data entry medium for the system. The main component of any keyboard is the key switch. These switches convert the typing action into proper signal for the key board interface, so that inter face will know that a key is being depressed. Different technology used to make these switches are:
$\square$ Membrane Technology
$\square$ Mechanical Switches
$\square$ Rubber Dome Switches


## Uses \& Market Potential:

The computer keyboard is important because it is the most effective input tool for letters and characters. Computer keyboards are analogous to the keys on a typewriter. Even if the technology has the ability to create letters and symbols, the keys are necessary to tell it which ones to create. In normal usage, the keyboard is used as a text entry interface to type text and numbers into a word processor, text editor or other programs. In a modern computer, the interpretation of key presses is generally left to the software. The demand for key boards is directly related to the growth of electronics industry, especially computer segment. The expansion of internet facilities even to rural areas has increased the demand for computers in the country. The key board assembly is generally a procured item and most of the renowned computer manufacturers outsource it to vendors in the small-scale sector. It is estimated that $80 \%$ of the demand of key boards is met by the small-scale sector. A substantial part is imported. Besides, there is also a great demand of key boards from medical electronics also as most of diagnostics medical equipment now days are based on computer technology and use key boards for data entry. With urbanization and fast growth of industry the demand for such products is ever increasing.

## Product:

Keyboard

## Raw Material:

Raw material that are:
> Integrated circuits
> Capacitors
> Displays
> Noise filters
$>$ PCBs
> Membrane key tops and Plunger
> Housing
> Cable connectors
> Other electronic components

## Manufacturing Process:

- Raw material procurement
- Electronic component assembly
- Mechanical sub assembly
- Integration
- Testing
- Packaging


## Area:

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and polishing area. Also, some of the area of building is required for office staff facilities, office furniture, etc. Thus, the approximate total area required for complete industrial setup is $1500-2000 \mathrm{Sqft}$.

## Cost of Machines:

| Machine | Quantity | Price |
| :--- | :---: | :--- |
| Multi Meter | 2 | 64,000 |
| Oscilloscopes | 2 | $1,50,000$ |
| Bench Drill | 2 | $1,10,000$ |
| Bench Grinder | 2 | 22,000 |
| Digital LCR Meter | 1 | 21,500 |
| IC Tester | 1 | 21,000 |
| Variacs | 1 | 7,500 |
| Soldering/De <br> Soldering Station | 2 | 16,000 |
| Other equipment's |  | 20,000 |
| Tools |  | $\mathbf{4 , 3 7 , 4 0 0}$ |
| Sub-Total |  |  |

Power Requirement- The estimated Power requirement is taken at 10 HP .

Manpower Requirement-Following manpower is required:

- Machine operator-2
- Skilled/unskilled worker-2
- Helper-3
- Manager cum Accountant-1
- Sales Personnel-2


## FINANCIALS

PROJECTED BALANCE SHEET

| PARTICULARS | I | II | III | IV | V |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| SOURCES OF FUND |  |  |  |  |  |
| Capital Account |  |  |  |  |  |
| Opening Balance | - | 1.44 | 2.14 | 3.23 | 4.49 |
| Add: Additions | 0.82 | - | - | - | - |
| Add: Net Profit | 2.42 | 3.20 | 4.09 | 5.06 | 5.89 |
| Less: Drawings | 1.80 | 2.50 | 3.00 | 3.80 | 4.50 |
| Closing Balance | 1.44 | 2.14 | 3.23 | 4.49 | 5.88 |
| CC Limit | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 |
| Term Loan | 3.90 | 2.92 | 1.95 | 0.97 | - |
| Sundry Creditors | 1.49 | 1.77 | 2.06 | 2.36 | 2.68 |
|  |  |  |  |  |  |
| TOTAL: | 9.82 | 9.82 | 10.23 | 10.82 | 11.55 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| APPLICATION OF FUND |  |  |  |  |  |
|  |  |  |  |  |  |
| Fixed Assets ( Gross) | 4.87 | 4.87 | 4.87 | 4.87 | 4.87 |
| Gross Dep. | 0.71 | 1.31 | 1.82 | 2.26 | 2.64 |
| Net Fixed Assets | 4.16 | 3.56 | 3.05 | 2.61 | 2.23 |
|  |  |  |  |  |  |
| Current Assets |  |  |  |  |  |
| Sundry Debtors | 2.44 | 3.01 | 3.55 | 4.11 | 4.71 |
| Stock in Hand | 2.37 | 2.83 | 3.31 | 3.80 | 4.32 |
| Cash and Bank | 0.84 | 0.42 | 0.33 | 0.29 | 0.29 |
|  |  |  |  |  |  |
| TOTAL: | 9.82 | 9.82 | 10.23 | 10.82 | 11.55 |
|  |  |  |  |  |  |

PROJECTED PROFITABILITY STATEMENT

| PARTICULARS | I | II | III | IV | V |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| A) SALES |  |  |  |  |  |
| Gross Sale | 52.20 | 64.58 | 76.00 | 88.16 | 100.91 |
|  |  |  |  |  |  |
| Total (A) | $\mathbf{5 2 . 2 0}$ | $\mathbf{6 4 . 5 8}$ | $\mathbf{7 6 . 0 0}$ | $\mathbf{8 8 . 1 6}$ | $\mathbf{1 0 0 . 9 1}$ |
|  |  |  |  |  |  |
| B) COST OF SALES |  |  |  |  |  |
|  |  |  |  |  |  |
| Raw Material Consumed | 29.70 | 35.34 | 41.20 | 47.28 | 53.58 |
| Elecricity Expenses | 0.67 | 0.78 | 0.90 | 1.01 | 1.12 |
| Repair \& Maintenance | 0.78 | 0.97 | 1.14 | 1.32 | 1.51 |
| Labour \& Wages | 9.64 | 11.86 | 14.23 | 16.79 | 19.31 |
| Depreciation | 0.71 | 0.60 | 0.51 | 0.44 | 0.37 |
| Cost of Production | 41.50 | 49.55 | 57.98 | 66.83 | 75.90 |
|  |  |  |  |  |  |
| Add: Opening Stock /WIP | - | 1.38 | 1.65 | 1.93 | 2.23 |
| Less: Closing Stock /WIP | 1.38 | 1.65 | 1.93 | 2.23 | 2.53 |
|  |  |  |  |  |  |
| Cost of Sales (B) | 40.12 | 49.28 | 57.70 | 66.54 | 75.59 |
|  |  |  |  |  |  |
| C) GROSS PROFIT (A-B) | 12.08 | 15.30 | 18.31 | 21.63 | 25.32 |
|  | $\mathbf{2 3 . 1 5 \%}$ | $\mathbf{2 3 . 6 9 \%}$ | $\mathbf{2 4 . 0 9 \%}$ | $\mathbf{2 4 . 5 3 \%}$ | $\mathbf{2 5 . 0 9 \%}$ |
| D) Bank Interest i) (Term Loan ) | 0.48 | 0.39 | 0.28 | 0.17 | 0.07 |
| ii) Interest On Working Capital | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 |
| E) Salary to Staff | 7.81 | 9.77 | 11.33 | 12.80 | 15.10 |
| F) Selling \& Adm Expenses Exp. | 1.04 | 1.61 | 2.28 | 3.09 | 3.53 |
|  |  |  |  |  |  |
| G) TOTAL (D+E+F) | $\mathbf{9 . 6 6}$ | $\mathbf{1 2 . 1 0}$ | $\mathbf{1 4 . 2 2}$ | $\mathbf{1 6 . 3 9}$ | $\mathbf{1 9 . 0 3}$ |
|  |  |  |  |  |  |
| H) NET PROFIT | 2.42 | 3.20 | 4.09 | 5.24 | 6.29 |
|  | $\mathbf{4 . 6 \%}$ | $\mathbf{5 . 0 \%}$ | $\mathbf{5 . 4 \%}$ | $\mathbf{5 . 9 \%}$ | $\mathbf{6 . 2 \%}$ |
| I) Taxation | - | - | - | 0.18 | 0.40 |
|  |  |  |  |  |  |
| J) PROFIT (After Tax) | 2.42 | 3.20 | 4.09 | 5.06 | 5.89 |
|  |  |  |  |  |  |

PROJECTED CASH FLOW STATEMENT


COMPUTATION OF CLOSING STOCK \& WORKING CAPITAL

| PARTICULARS | I | II | III | IV | V |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Finished Goods |  |  |  |  |  |
| (10 Days requirement) | 1.38 | 1.65 | 1.93 | 2.23 | 2.53 |
| Raw Material |  |  |  |  |  |
| (10 Days requirement) | 0.99 | 1.18 | 1.37 | 1.58 | 1.79 |
|  |  |  |  |  |  |
|  |  |  |  |  | $\mathbf{3 . 8 0}$ |

COMPUTATION OF WORKING CAPITAL REQUIREMENT

| Particulars | Amount | Margin(10\%) | Net |
| :--- | ---: | ---: | ---: |
|  |  |  | Amount |
| Stock in Hand | 2.37 |  |  |
| Less: | 1.49 |  |  |
| Sundry Creditors | $\mathbf{0 . 8 9}$ | $\mathbf{0 . 0 9}$ | $\mathbf{0 . 8 0}$ |
| Paid Stock |  |  |  |
|  | 2.44 | 0.24 | 2.19 |
| Sundry Debtors |  |  | $\mathbf{2 . 9 9}$ |
| Working Capital Requirement |  |  |  |
|  |  |  | 0.33 |
| Margin |  |  |  |
|  |  |  | $\mathbf{2 . 9 9}$ |
| MPBF |  |  | $\mathbf{2 . 9 9}$ |
| Working Capital Demand |  |  |  |


| REPAYMENT SCHEDULE OF TERM LOAN |  |  |  | 11.0\% |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Particulars | Amount | Addition | Total | Interest | Repayment | Cl Balance |
| I | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | - | 4.38 | 4.38 | 0.12 | - | 4.38 |
|  | Iind Quarter | 4.38 | - | 4.38 | 0.12 | - | 4.38 |
|  | IIIrd Quarter | 4.38 | - | 4.38 | 0.12 | 0.24 | 4.14 |
|  | Ivth Quarter | 4.14 | - | 4.14 | 0.11 | 0.24 | 3.90 |
|  |  |  |  |  | 0.48 | 0.49 |  |
| II | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 3.90 | - | 3.90 | 0.11 | 0.24 | 3.65 |
|  | Iind Quarter | 3.65 | - | 3.65 | 0.10 | 0.24 | 3.41 |
|  | IIIrd Quarter | 3.41 | - | 3.41 | 0.09 | 0.24 | 3.17 |
|  | Ivth Quarter | 3.17 |  | 3.17 | 0.09 | 0.24 | 2.92 |
|  |  |  |  |  | 0.39 | 0.97 |  |
| III | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 2.92 | - | 2.92 | 0.08 | 0.24 | 2.68 |
|  | Iind Quarter | 2.68 | - | 2.68 | 0.07 | 0.24 | 2.44 |
|  | IIIrd Quarter | 2.44 | - | 2.44 | 0.07 | 0.24 | 2.19 |
|  | Ivth Quarter | 2.19 |  | 2.19 | 0.06 | 0.24 | 1.95 |
|  |  |  |  |  | 0.28 | 0.97 |  |
| IV | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 1.95 | - | 1.95 | 0.05 | 0.24 | 1.70 |
|  | Iind Quarter | 1.70 | - | 1.70 | 0.05 | 0.24 | 1.46 |
|  | IIIrd Quarter | 1.46 | - | 1.46 | 0.04 | 0.24 | 1.22 |
|  | Ivth Quarter | 1.22 |  | 1.22 | 0.03 | 0.24 | 0.97 |
|  |  |  |  |  | 0.17 | 0.97 |  |
| V | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 0.97 | - | 0.97 | 0.03 | 0.24 | 0.73 |
|  | Iind Quarter | 0.73 | - | 0.73 | 0.02 | 0.24 | 0.49 |
|  | IIIrd Quarter | 0.49 | - | 0.49 | 0.01 | 0.24 | 0.24 |
|  | Ivth Quarter | 0.24 |  | 0.24 | 0.01 | 0.24 | 0.00 |
|  |  |  |  |  | 0.07 | 0.97 |  |
|  | Door to Door Period Moratorium Period Repayment Period | $\begin{array}{r} 60 \\ 6 \\ 54 \end{array}$ |  |  |  |  |  |

CALCULATION OF D.S.C.R

| PARTICULARS | I | II | III | IV | V |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| CASH ACCRUALS | 3.13 | 3.80 | 4.60 | 5.50 | 6.26 |
|  |  |  |  |  |  |
| Interest on Term Loan | 0.48 | 0.39 | 0.28 | 0.17 | 0.07 |
|  |  |  |  |  |  |
| Total | 3.60 | 4.19 | 4.88 | 5.67 | 6.33 |
|  |  |  |  |  |  |
| REPAYMENT |  |  |  |  |  |
| Repayment of Term Loan | 0.49 | 0.97 | 0.97 | 0.97 | 0.97 |
| Interest on Term Loan | 0.96 | 0.39 | 0.28 | 0.17 | 0.07 |
|  |  | 1.36 | 1.26 | 1.15 | 1.04 |
| Total |  |  |  |  |  |
|  | $\mathbf{3 . 7 5}$ | $\mathbf{3 . 0 8}$ | $\mathbf{3 . 8 9}$ | $\mathbf{4 . 9 4}$ | $\mathbf{6 . 0 8}$ |
| DEBT SERVICE COVERAGE RATIO |  |  |  |  |  |
|  |  |  | $\mathbf{4 . 2 8}$ |  |  |
| AVERAGE D.S.C.R. |  |  |  |  |  |

## Assumptions:

1. Production Capacity of Keyboard Manufacturing unit is taken at 150 Units per day. First year, Capacity has been taken @ $30 \%$.
2. Working shift of 10 hours per day has been considered.
3. Raw Material stock and Finished goods closing stock has been taken for 10 days.
4. Credit period to Sundry Debtors has been given for 14 days.
5. Credit period by the Sundry Creditors has been provided for 15 days.
6. Depreciation and Income tax has been taken as per the Income tax Act,1961.
7. Interest on working Capital Loan and Term loan has been taken at $11 \%$.
8. Salary and wages rates are taken as per the Current Market Scenario.
9. Power Consumption has been taken at 10 HP.
10. Selling Prices \& Raw material costing has been increased by $3 \%$ \& $2 \%$ respectively in the subsequent years.

## DISCLAIMER

The views expressed in this Project Report are advisory in nature. SAMADHAN assume no financial liability to anyone using the content for any purpose. All the materials and content contained in Project report is for educational purpose and reflect the views of the industry which are drawn from various research material sources from internet, experts, suppliers and various other sources. The actual cost of the project or industry will have to be taken on case to case basis considering specific requirement of the project, capacity and type of plant and other specific factors/cost directly related to the implementation of project. It is intended for general guidance only and must not be considered a substitute for a competent legal advice provided by a licensed industry professional. SAMADHAN hereby disclaims any and all liability to any party for any direct, indirect, implied, punitive, special, incidental or other consequential damages arising directly or indirectly from any use of the Project Report Content, which is provided as is, and without warranties.

