

PROJECT REPORT

Of

MOSQUITO RACKET

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Mosquito Racket 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.]



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PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **MOSQUITO RACKET**
- 6 Name of the project / business activity proposed : **MOSQUITO RACKET MANUFACTURING UNIT**
- 7 Cost of Project : Rs.23.54 Lakhs
- 8 Means of Finance
- Term Loan Rs.15.39 Lakhs
- Own Capital Rs.2.35 Lakhs
- Working Capital Rs.5.79 Lakhs
- 9 Debt Service Coverage Ratio : 2.24
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 34%
- 13 Employment : 11 Persons
- 14 Power Requirement : 34.00 HP
- 15 Major Raw materials : ABS Plastic Granules, Electrical Components, Metal and other parts
- 16 Estimated Annual Sales Turnover (Max Capacity) : 127.98 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	16.30
Furniture & Fixtures	0.80
Working Capital	6.44
Total	23.54

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.35
Working Capital(Finance)	5.79
Term Loan	15.39
Total	23.54

MOSQUITO RACKET MANUFACTURING UNIT

Introduction:

The racket is a device used to kill mosquitos; the user waves the racket around to catch a mosquito between the metal grid, which shorts the circuit and electrocutes the insect. It is an electronic device that produces high voltage around 300-400 volts in the nets. When the mosquito passes through the outer and inner nets of the racket, its wings short out and sparks will destroy it. This device mainly consists of control circuit board, Lead acid battery, and Metal mesh parts.



Uses & Market Potential:

The electric mosquito racket is a household device used widely to kill mosquitoes. This rechargeable tool can also be used to kill other insects and bugs and would be a useful tool for balconies and patios. According to the latest market study, the global electronic insect killer market is expected to reach USD 234.80 million by 2021,

growing at a CAGR of almost 7%. The rapid spread of the diseases such as the West Nile virus and the Zika virus across the globe over a period demonstrates the growing need for organized insect control devices. Insects are highly effective and deadly vectors that cause diseases in humans as well as animals. These insects spread communicable diseases like malaria, encephalitis, dengue fever, and, most recently, West Nile virus and Zika virus. The insect control activities are conducted for many reasons- economics, agricultural productivity, recreational enjoyment, and livestock health and safety. The large electronic insect killers are in major demand from the commercial sector compared with the residential sector. Mosquito killer Rackets comprise 14% of the total market for electronic insect killers. The residential sector mainly uses the rackets to do away with insects and mosquitoes. The market for rackets is in its growing stage and is expected to be dominated by the demand from the developing economies due to low product prices. The frequent charging requirements of the product hinders the market. The low coverage and success rates of killing the insect also prevent the demand for the product.

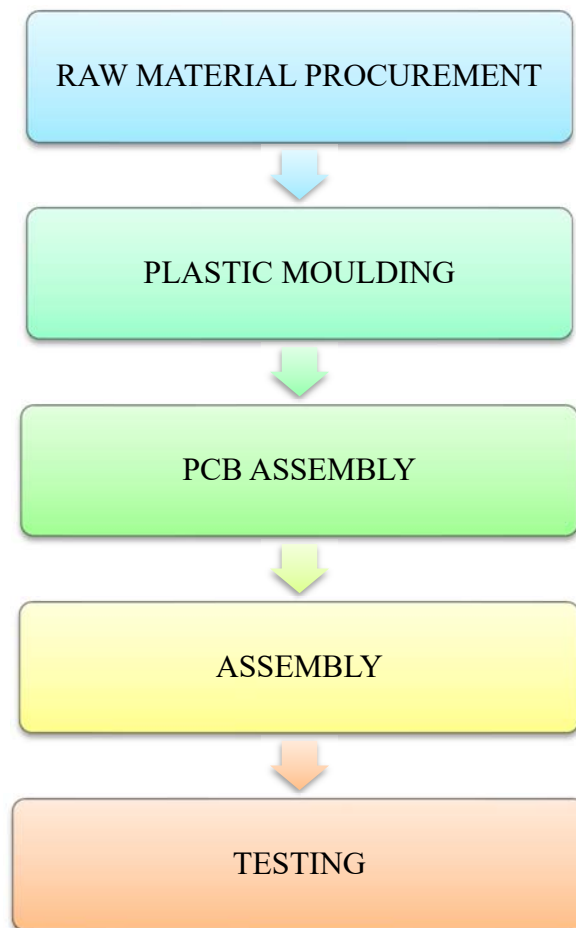
Product:

Mosquito Racket

Raw Material:

Basic raw material are ABS Plastic Granules, Electrical Components, Metal and Others (Screws, push button, solder wire, etc.)

Manufacturing Process:



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 1200-1800Sqft.

Cost of Machines:

Machine	Unit	Rate	Price
Injection Moulding Machine	1	800000	800000
Expanded Aluminium Mesh Making Machine	1	150000	150000
Mesh Cutting Machine	1	200000	200000
Press Machine	1	180000	180000
Shearing Machine	1	250000	250000
Other tools and equipment's	-	50000	50000
Total Amount			1630000

Power Requirement- The estimated Power requirement is taken at 34 HP.

Manpower Requirement- Following manpower is required:

- Machine operator-2
- Skilled/unskilled worker-3
- Helper-4
- Manager cum Accountant-1
- Sales Personnel-1

FINANCIALS

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
<u>Capital Account</u>					
Opening Balance	-	3.24	4.85	6.97	9.95
Add: Additions	2.35	-	-	-	-
Add: Net Profit	3.89	5.01	6.12	7.27	8.73
Less: Drawings	3.00	3.40	4.00	4.30	5.20
Closing Balance	3.24	4.85	6.97	9.95	13.48
CC Limit	5.79	5.79	5.79	5.79	5.79
Term Loan	13.68	10.26	6.84	3.42	-
Sundry Creditors	2.10	2.41	2.73	3.06	3.41
TOTAL :	24.81	23.31	22.34	22.22	22.68
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	17.10	17.10	17.10	17.10	17.10
Gross Dep.	2.53	4.68	6.51	8.07	9.40
Net Fixed Assets	14.58	12.42	10.59	9.03	7.70
Current Assets					
Sundry Debtors	3.35	4.08	4.68	5.31	5.97
Stock in Hand	5.19	5.98	6.78	7.61	8.48
Cash and Bank	1.70	0.83	0.28	0.26	0.53
TOTAL :	24.81	23.31	22.34	22.22	22.68

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PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
<u>A) SALES</u>					
Gross Sale	71.82	87.40	100.30	113.83	127.98
Total (A)	71.82	87.40	100.30	113.83	127.98
<u>B) COST OF SALES</u>					
Raw Material Consumed	42.00	48.20	54.62	61.28	68.19
Electricity Expenses	3.04	3.42	3.80	4.19	4.57
Repair & Maintenance	1.80	2.18	2.51	2.85	3.20
Labour & Wages	12.35	15.44	18.21	21.13	24.09
Depreciation	2.53	2.15	1.83	1.56	1.33
Cost of Production	61.71	71.39	80.98	91.00	101.37
Add: Opening Stock /WIP	-	3.09	3.57	4.05	4.55
Less: Closing Stock /WIP	3.09	3.57	4.05	4.55	5.07
Cost of Sales (B)	58.63	70.91	80.50	90.50	100.85
C) GROSS PROFIT (A-B)	13.19	16.49	19.80	23.32	27.13
	18.37%	18.87%	19.74%	20.49%	21.20%
D) Bank Interest i) (Term Loan)	1.67	1.36	0.99	0.61	0.24
ii) Interest On Working Capital	0.64	0.64	0.64	0.64	0.64
E) Salary to Staff	5.92	6.87	8.38	10.06	11.26
F) Selling & Adm Expenses Exp.	1.08	2.45	3.21	3.98	5.12
G) TOTAL (D+E+F)	9.31	11.32	13.22	15.29	17.26
H) NET PROFIT	3.89	5.17	6.58	8.03	9.88
	5.4%	5.9%	6.6%	7.1%	7.7%
I) Taxation	-	0.17	0.46	0.76	1.14
J) PROFIT (After Tax)	3.89	5.01	6.12	7.27	8.73

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	2.35	-	-	-	-
Reserve & Surplus	3.89	5.17	6.58	8.03	9.88
Depreciation & Exp. W/off	2.53	2.15	1.83	1.56	1.33
Increase In Cash Credit	5.79	-	-	-	-
Increase In Term Loan	15.39	-	-	-	-
Increase in Creditors	2.10	0.31	0.32	0.33	0.35
TOTAL :	32.05	7.63	8.74	9.93	11.55
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	17.10	-	-	-	-
Increase in Stock	5.19	0.79	0.80	0.83	0.86
Increase in Debtors	3.35	0.73	0.60	0.63	0.66
Repayment of Term Loan	1.71	3.42	3.42	3.42	3.42
Taxation	-	0.17	0.46	0.76	1.14
Drawings	3.00	3.40	4.00	4.30	5.20
TOTAL :	30.35	8.51	9.28	9.95	11.29
Opening Cash & Bank Balance	-	1.70	0.83	0.28	0.26
Add : Surplus	1.70	- 0.87	- 0.55	- 0.02	0.26
Closing Cash & Bank Balance	1.70	0.83	0.28	0.26	0.53

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	I	II	III	IV	V
<u>Finished Goods</u>					
(15 Days requirement)	3.09	3.57	4.05	4.55	5.07
<u>Raw Material</u>					
(15 Days requirement)	2.10	2.41	2.73	3.06	3.41
Closing Stock	5.19	5.98	6.78	7.61	8.48

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	5.19		
Less:			
Sundry Creditors	2.10		
Paid Stock	3.09	0.31	2.78
Sundry Debtors	3.35	0.34	3.02
Working Capital Requirement			5.79
Margin			0.64
MPBF			5.79
Working Capital Demand			5.79

REPAYMENT SCHEDULE OF TERM LOAN

11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	-	15.39	15.39	0.42	-	15.39
	Iind Quarter	15.39	-	15.39	0.42	-	15.39
	IIIrd Quarter	15.39	-	15.39	0.42	0.86	14.54
	Ivth Quarter	14.54	-	14.54	0.40	0.86	13.68
					1.67	1.71	
II	Opening Balance						
	Ist Quarter	13.68	-	13.68	0.38	0.86	12.83
	Iind Quarter	12.83	-	12.83	0.35	0.86	11.97
	IIIrd Quarter	11.97	-	11.97	0.33	0.86	11.12
	Ivth Quarter	11.12		11.12	0.31	0.86	10.26
					1.36	3.42	
III	Opening Balance						
	Ist Quarter	10.26	-	10.26	0.28	0.86	9.41
	Iind Quarter	9.41	-	9.41	0.26	0.86	8.55
	IIIrd Quarter	8.55	-	8.55	0.24	0.86	7.70
	Ivth Quarter	7.70		7.70	0.21	0.86	6.84
					0.99	3.42	
IV	Opening Balance						
	Ist Quarter	6.84	-	6.84	0.19	0.86	5.99
	Iind Quarter	5.99	-	5.99	0.16	0.86	5.13
	IIIrd Quarter	5.13	-	5.13	0.14	0.86	4.28
	Ivth Quarter	4.28		4.28	0.12	0.86	3.42
					0.61	3.42	
V	Opening Balance						
	Ist Quarter	3.42	-	3.42	0.09	0.86	2.57
	Iind Quarter	2.57	-	2.57	0.07	0.86	1.71
	IIIrd Quarter	1.71	-	1.71	0.05	0.86	0.85
	Ivth Quarter	0.85		0.85	0.02	0.86	- 0.00
					0.24	3.42	

Door to Door Period 60 Months
Moratorium Period 6 Months
Repayment Period 54 Months

Assumptions:

1. Production Capacity of Mosquito Racket Manufacturing unit is taken at 700 Pcs per day. First year, Capacity has been taken @ 40%.
2. Working shift of 10 hours per day has been considered.
3. Raw Material stock and Finished goods closing stock has been taken for 15 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 34 HP.
10. Selling Prices & Raw material costing has been increased by 3% & 2% respectively in the subsequent years.

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CALCULATION OF D.S.C.R

PARTICULARS	I	II	III	IV	V
<u>CASH ACCRUALS</u>	6.41	7.16	7.95	8.83	10.06
Interest on Term Loan	1.67	1.36	0.99	0.61	0.24
Total	8.08	8.52	8.94	9.44	10.30
<u>REPAYMENT</u>					
Repayment of Term Loan	1.71	3.42	3.42	3.42	3.42
Interest on Term Loan	1.67	1.36	0.99	0.61	0.24
Total	3.38	4.78	4.41	4.03	3.66
DEBT SERVICE COVERAGE RATIO	2.39	1.78	2.03	2.34	2.82
AVERAGE D.S.C.R.			2.24		