# **REVIEW 1**

# LEAN STARTUP MANAGEMENT MGT 1022 FALL SEMESTER 2019-20

**NAME:** TANYA SHARMA

**REG NO.:** 17BIT0230

**SLOT:** TE1

B. Tech. Computer Science Engineering



#### SCHOOL OF MECHANICAL ENGINEERING VIT, VELLORE

# **Under the Guidance of:**

Prof. Vezhavendhan R

#### **TEAM MEMBERS:**

Avina – 17BCE0898

Barkha - 17BCE0314

Arunima Garg - 17BCE0844

J. Sowmyasree – 17MIS0009 B.R.

Vasanth - 17MIS0406

Tanya Sharma – 17BIT0230

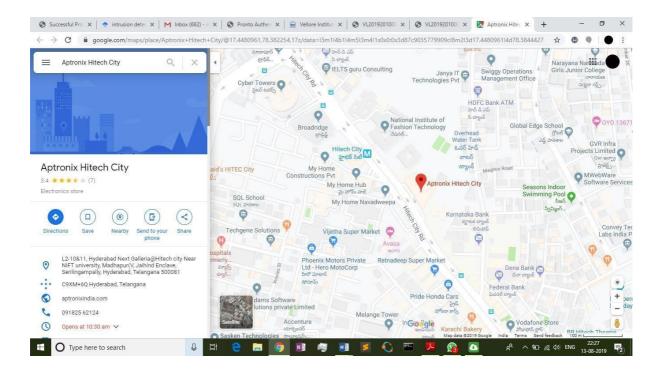
#### 1. Innovative Product

#### "Wireless power delivery cords for mobile phones and laptops"

This product can help us to charge electronic devices like mobile phones, laptops, tablets, etc. at a nominal cost without the fuss of using any power cords. It consists of a transmitter with a coverage area of about 250 sq. feet and a portable receiver that can be hooked up with any electronic device.

#### 2. Exact Location:

L2-12&13 Hyderabad Next Galleria@Hitech city Near NIFT university, Madhapur(V, Serilingampally, Hyderabad, Telangana 500081



#### Google maps link:

 $\underline{https://www.google.com/maps/place/Aptronix+Hitech+City/@17.4480961,78.382254,17z/data=!3m1}\\ \underline{!4b1!4m5!3m4!1s0x0:0x3d87c9035779909c!8m2!3d17.4480961!4d78.3844427}$ 

#### 3. Research on the Location

There are no ports near to Hyderabad at all. It is located at about 9.5 km from NH65.

#### **Advantages of the location:**

- 1. It provides office spaces for rent in affordable prices
- 2. There are many IT companies and employees who can be our potential customers
- 3. It has its own power supply as well as fibre optic Internet connectivity;
- 4. Many undeveloped plots of land upon which business may build their own structures and still benefit from HITEC City's independent infrastructure;
- 5. A residential area in which HITEC City employees may live in relative luxury;
- 6. The railway system can help us get the raw materials easily from the nearby locations.
- 7. Hyderabad is the IT hub so the required materials can be easily obtained
- 8. These centres also divert central government funds towards these startups to help them find their feet in the market. They nurture them until they find angel funding outside. And as long as they are at our centre, they provide them some money under certain central government schemes
- 9. Close to national highways which allows easy transportation of raw materials and people,
- 10. encouragement offered by incubators and mentors that is pushing Hyderabad forward in the startup race. for the first time are not too aware of how to approach customers or develop a network in the industry
- 11. Availability of airports for fast and efficient transfer of raw materials and resources.
- 12. A lot of techies are available which can work in our company, closer to universities and recruiting companies

#### **Disadvantages of the location:**

- 1. There are no ports nearby so we would be at disadvantage in terms of transportation.
- 2. Hitech city is highly populated so has immense traffic which can hinder a lot of our shipments, deliveries and daily activities.
- 3. Highly competitive due a large number of other tech companies in the area.

#### **Work Distribution:**

- 1. Location: B.R. Vasanth
- 2. Advantages Avina, Arunima Garg, J. Sowmyasree Disadvantage Avina, J. Sowmyasree
- 3. Report compilation and editing Barkha, Avina

# **REVIEW -2**

# LEAN START-UP MANAGEMENT

# **MGT 1022**

# **FALL SEMESTER 2019-20**

Name: TANYA SHARMA Reg no: 17BIT0230 SLOT: TE1

**B.Tech Computer Science Engineering** 



# SCHOOL OF MECHANICAL ENGINEERING VIT, VELLORE

# **Under the Guidance of:**

Prof. Vezhavendhan R

#### **TEAM MEMBERS:**

Avina – 17BCE0898 Barkha – 17BCE0314 Arunima Garg – 17BCE0844

J.Sowmyasree – 17MIS0009 B.R. Vasanth – 17MIS0406 Tanya Sharma – 17BIT0230

# 1. Executive Summary

**SANS-WIRE** 

L2-12&13 Hyderabad Next Galleria@Hitech city Near NIFT university,

Madhapur(V, Serilingampally Hyderabad, Telangana – 500081 contact@sansWire.ac.in

# 1. What is our product

SANS-WIRE is a 2-unit product that helps to charge electronic devices like mobile phones, at a nominal cost without the fuss of using any power cords. It consists of a transmitter with a coverage area of about 250 sq. feet and a portable receiver that can be hooked up with any electronic device.

The Transmitter: A source of IR radiation, coverage span of about 250 sq. feet(vertically-5meter), frequency of radiation emitted- 5.8 GHz.

The receiver: Comes in 2 varieties, one for devices with lower current rating like mobile phone and other for devices with higher current ratings like Laptops. Consists of a photovoltaic cell that supplies electricity to the phone.

#### 2. Business Name:

**SANS-WIRE** 

#### 3. Product/Service Idea:

A product to enable wireless charging of electronic devices

# 4. Special Benefits:

To hotel/restaurant owners, in clinics, railway stations, -can attract more customers by offering free wireless phone charging perks.

## 5. Unique features:

Nominal running cost, reliable, easy to use, Doesn't interfere with other communication protocols/Bluetooth/wi-fi, Unharmful to humans and pets.

## 6. Limits and Liabilitity:

Currently is only limited to big cities in South India but future plans involve expansion in other cities in the North India. Initial liability is the funding that we would be getting from our investors and bank loans that we would be taking for product manufacture.

# 7. Production and Delivery:

Produced in a warehouse in Vellore with minimal investment on fixed capital. Will be sold through online selling methods on sites like Amazon, Flipkart. As the popularity grows, we would partner with dealers and electronic shop owners of Chennai and make our product available in mall outlets/ electronic shops as well.

# 8. Problems solved by the product

- No hassles of carrying cable cords from place to place or searching forplug points in home for charging.
- Phones and devices charge automatically and need no humanintervention to tell them explicitly when to charge.
- Charging possible even while walking
- -Multiple devices can be charged at the same time.

# 2. Legal Structure of the Company

For our company, the legal structure that we will adopt is "Partnership Firm Legal Structure". Since our company involve six business partners, this legal structure can be best applied.

a. The compliance requirements are low and while the firm is adistinct entity from the partners, each partner's liability is unlimited.

- b. There will be a formal agreement owing to the fact that personalliability is unlimited for each partner. The formal agreement will have the following points:
  - each partner's role and level of authority
  - each partner's financial contribution
  - a procedure for resolving disputes
  - a procedure for ending or resigning from the partnership
- c. We will be held liable for any shortfall if the business fails and apartner can't afford to pay their share of any debts. We are also jointly responsible for any debts our partner incurs on behalf of the business, with or without our knowledge.
- d. If there is no agreement in place, each partner is deemed to ownequal shares of each asset.
- e. A partnership doesn't pay tax on its income. Instead, each partnerpays tax on the share of net partnership income each receives.

#### 3. WORK DISTRIBUTION

Avina – Administration and HR

Barkha – Legal structuring Arunima

Garg – Marketing and Sales

J. Sowmyasree – Finance and Accounting

B.R. Vasanth – Technical and sourcing

Tanya Sharma - Insurance and security

#### 4. ORGANIZATIONAL CHART



# 5. Conduct a market survey for your product/service:

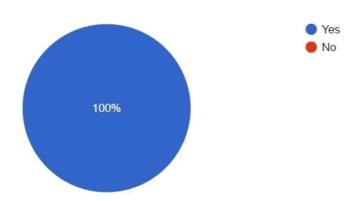
A study of various customer capabilities such as investment attributes and buying potential. Market surveys are tools to directly collect feedback from the target audience to understand their characteristics, expectations, and requirements.

By doing so, the success of a new avenue can be assured. Most marketing managers depend on market surveys to collect information that would catalyze the market research process. Also, the feedback received from these surveys can be contributory in product marketing and feature enhancement.

# HERE WE CONDUCT A MARKET SURVEY:

Can power be transmitted through materials other than air?

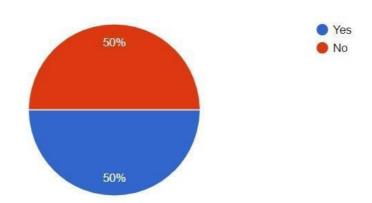
30 responses



Yes, power can be transmitted through any non-metallic material including liquids, solids and gases. Power cannot be transmitted through metallic or ferrous materials.

# Do you use wireless power delivery cords?

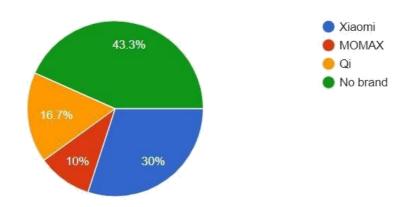
30 responses



By this, we get to know that only 50% of the customers use the wireless power delivery cords. In order to compete our goal we will try to reach the needs of the customers to increase the percentage of the usage of wireless power delivery cords.

# Which brand wireless power delivery cords you use?

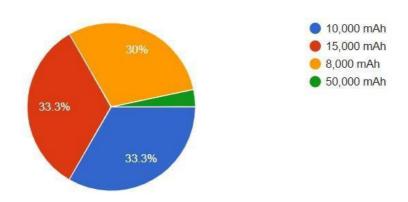
30 responses



It shows that 43.3% people use un-recognize brand wireless power delivery cords and remaining use some recognize brands i.e., customers are unable to identify the good brand in the market and through this we focused on our product to beat the other brands.

How much power(mAh) do you require on a daily basis?

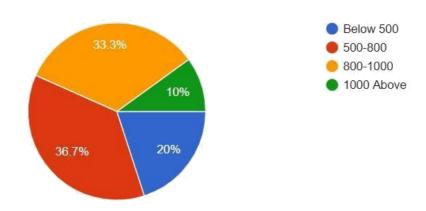
30 responses



Power needed by the customers ranges between 10,000 mAh-15,000 mAh to charge there mobiles, laptops, etc which is a normal range of mAh in wireless power cords. We will focus on the same range the customers wants.

# How much are you willing to pay for this product?

30 responses

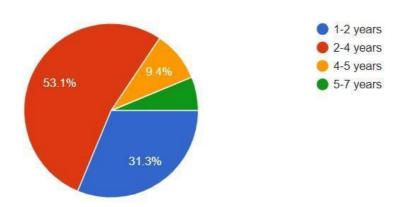


According to the rough estimation for cost of the product, customers would like to buy it on a cheap rate. Through which our product will cost in the range of 500-800 to hit the market value of the product as well as with other brands.

According to the rough estimation for cost of the product, customers would like to buy it on a cheap rate. Through which our product will cost in the range of 500-800 to hit the market value of the product as well as with other brands.

How long do you expect the product-life to be?

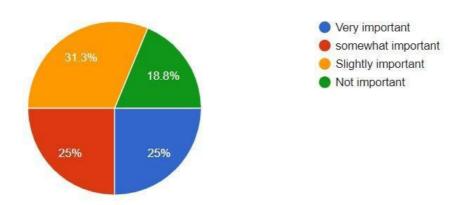
32 responses



The service of the product for 2-4 years is enough for the customers to buy it in the range of 500-800. This will help in increasing the market

value as providing a wireless power delivery cords on a cheap rate. Product-life matters alot to ensure the customer first need. How important is the look and feel of a power bank to you?

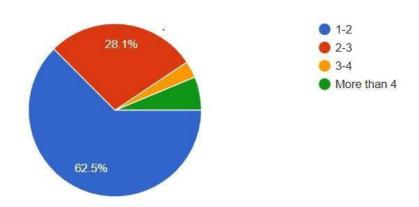
32 responses



Yes, in order to make product attractive looks actually matter. Basically the look of the product depends on the shape, colour and size. Whenever customers buy a new product, they always focused on the look of the product.

How many power banks do you have at your home?

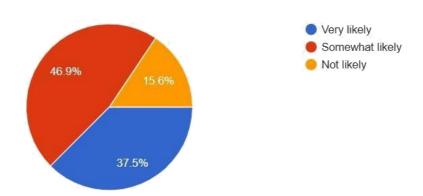
32 responses



Through this we get to know that the sales of power banks are less in market because they are mostly used only for mobiles whereas our wireless power delivery cords supports charging for a wide range of electronic devices such as laptops, tablets, mobiles, etc.

How likely are you to pay more for a power bank with that can charge multiple devices at once?

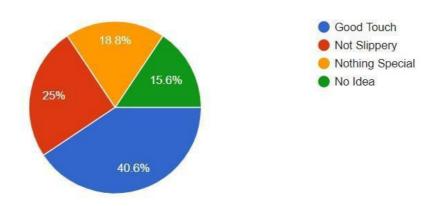
32 responses



Customers always look for their advantages in the product. Therefore, our product will fulfil the demand of the customers by providing a wireless power bank which can charge multiple devices.

What's your opinion of a rubber-surfaced power bank?

32 responses



Due to the shift in the mentality of the customers they tend to focus more on the aesthetic and feel of a product. Leading us to do a detailed market research about the availability of various materials for better manufacturing and for durability.

#### 6. COMPETITOR ANALYSIS:

# **FIVE FORCE MODEL:**

# 1) Intensity of Competition:

# High:

Already a lot of companies have started making this product and it is high on demand in the market.

Lot of players are there in the market.

Pressure to be better than these existing companies based on size, portability, power and cost.

## 2) Threat Of New Entrance:

#### Low:

The idea can be implemented but requires expert knowledge for the development of the product.

## 3) Threat of Substitutes:

# High:

There are a lot of companies that sell power banks which are portable but not wireless. But they are a cheaper option compared to this.

People might not want to invest in such a wireless power bank and might stick to carrying the conventional charges along everytime.

# 4) Bargaining Power of Buyers:

# Medium:

The customer may opt for such a power bank or may stick to a wired power bank.

# 5) Bargaining Power of Suppliers:

## Low:

The manufacturing components can be provided by many hardware shops, so we can say that in terms of suppliers, supply>demand, thus bargaining power of suppliers is low.

# **EXISTING COMPANIES IN THE MARKET:**

# 1) Flepow wireless power bank

Advantages: Compact, portable and ideal for short trips.

There is social media presence on Pinterest, which they use for their publicity. <u>Disadvantages</u>: Suitable for only tablets and phones.

# 2) Omars

<u>Advantages:</u> Can be used to charge laptop and camera batteries. Great battery life. Available for sale on various platforms like ubuy, amazon etc. Good virtual presesnce.

<u>Disadvantages:</u> It is expensive.

## 3) NOVOO

<u>Advantages:</u> Convenient, small enough to fit in a cup holder, looks super sleek, and lasts for days.

**Disadvantages:** Poor battery life.

## 4) Cosoos

<u>Advantages:</u> Can charge multiple devices at a time. Design is well thought out.

Great customer service. Comes with an extra holder. Disadvantages: It is expensive.

## 5) AIDEAZ

Advantages: Can also be charged by devices that use a C type USB for charging.

Great quality.

<u>Disadvantages:</u> It is expensive.

#### **7.FEASIBILITY ANALYSIS:**

Here we will test the feasibility of this product by analysing the following points:

- 1) What is the value proposition or unique selling point of this product? Enabling us to charge one or multiple devices via portable wireless power banks. Ensures portablity, hassle free handling as no cords are needed for charging.
- 2) Who is the target user group?

Anybody who has a lot of gadgets and requires a constant use of them. Office employees who go on official tours, they might have to spend long hours travelling where there might not be charging points. This device can come in handy then.

Thus, we have a well defined target audience who would be willing to spend on this product. Thus, there is a need and opportunity and interested buyers.

# 3) A strong business Plan

This can be created by defining short term and long term goals. This will improve the chances of success of our product in the market.

4) We can build a strong brand identity on the USP Employ a mascot for this product

# 5) Budgeting

The main money spent will be in developing the product and will include hardware and assimilation costs. An upfront estimate can be received beforehand and then the company can proceed accordingly. Rest of the money can be spent for marketining

Like displaying the product in technical expos, creating a website, getting other online platforms to agree to sell the product.

# 6) Competitor Analysis

After a thorough competitor analysis, we have seen that there are other players in the market. But there is a huge market for this product. Thus if we come up with this product with added features and a very competitive price, we will surely become market seekers for this product.

# 7) Analysis the Resources Required

Human: To integrate the hardware components and manufacture the wireless power bank

Raw materials: Hardware components

The most essential component is the human resource which is available easily. With proper training they will be suitable for the job.

#### 8) Finances Needed

Upfront investment is first needed to buy the components and develop the product. Expansion is only possible with the profits. We can ask Venture Capitalists or Angel Investors to lend money initially.

We have seen the above 8 factors that will majorly determine the feasibility of this business.

We notice that there is a need, a market, a customer group and an opportunity for this business.

And since the supply is less than demand the business is still in the growth stage, thus it is safe to enter the market with this idea according to the product life cycle.

Keeping in mind the resources needed, finances to be taken care of and with proper costing and budgeting this business is extremely feasible.

# **8.USP** of our product:

WI-C, your personal charger but without wires.

# 9. Marketing Strategies for our product are :

- 1. Advertising through social media: Social media advertising, or socialmedia targeting, are advertisements served to users on social media platforms. Social networks utilize user information to serve highly relevant advertisements based on interactions within a specific platform. In many instances, when target market aligns with the user demographics of a social platform, social advertising can provide huge increases in conversions and sales with lower cost of acquisition.
- 2. Leverage influencers: Influencer marketing is a form of social mediamarketing involving endorsements and product placements from influencers, people and organizations who possess an expert level of knowledge and/or social influence in their respective fields.
- 3. Through Linkedin:Marketing on LinkedIn helps you engage acommunity of professionals to drive actions that are relevant to your business.

- 4. E-mail Marketing:Email marketing is the practice of sending varioustypes of content to a list of subscribers via email. This content can serve to generate website traffic, leads, or even product signups for a business. It's important that an email campaign's recipients have personally opted in to receive this content, and that each newsletter offers something of value to them.
- 5. Through Video Marketing:Using video to promote or market yourbrand, product or service. A strong marketing campaign incorporates video into the mix. Customer testimonials, videos from live events, how-to videos, explainer videos, corporate training videos, viral (entertainment) videos the list goes on.
- 6. Survey, Listen, Learn (By getting Feedbacks)

# 10. Sales Strategies for our product are:

- 1. Starting with small niche markets.
- 2. Connecting with decision makers.
- 3. Listening to what the prospects tell.
- 4. Giving attention to sales calls.
- 5. Highlight risks and oppurtunities.
- 6. Develop right mindset.
- 7. Ask for specific referrals.
- 8. Give short product terms.
- 9. Address uncertainty when you see it.
- 10. Employ email automation.

# 11. Find out the GST for the product/service

GST rate and SAC code for our product is 18 percent and 998422 respectively.

# 12. **Pricing strategy**

The pricing strategy that might be best suited for our product is market – penetration pricing. The reasons for choosing the same are as follows:

- (i) As it is a totally new concept, people are not willing to invest huge amounts of money at the launch of the product. In such a case, it is important to set a a low price for a new product to penetrate the market quickly and deeply. Thereby, a large number of buyers and a large market share are won, but at the expense of profitability.
- (ii) A survey was conducted using google forms to know about how much people are ready to pay for wireless mobile charging services. It was found out that people were ready to adopt the new technology and stop the use of power cables only when the cost was not very high. Because of this, we need to apply market penetration pricing.
- (iii) The competitors are close to nil as no other company has offered such type of service before in India. So once a large number of buyers is attracted, although the low prices make each sale less profitable, the high volume will result in lower costs and will allow us to maintain a healthy profit margin.
  - 13. List out the clearances and Licenses that you need to obtain. Also mention the authorities/offices from which you should get them.

S.No.	Clearanc Authority/Office/Website	
	e/License	

1.	Trade	(i) Registration and login through the one time password		
	license	on https://www.ghmc.gov.in/Trade.aspx#		
		(ii) Field verification officer will verify the		
		documents and submits his recommendation to the Deputy		
Commissioner/Zonal Commissioner/Chief				
		Officer for approval / rejection / issue of Trade license		
		certificate.		
the application received		(iii) Final approval authority(ZC/DC/CVO) will verify the application received from field verification officer and can approve or reject the application.		
2.	Registrati	The Directorate General of Vigilance, an attached office of		
	on under	the Central Board of Excise & Customs (CBEC) in the		
Central		Department of Revenue, Ministry of		
	Excise	Finance, Govt. of India. ( <a href="http://www.cbic.gov.in/">http://www.cbic.gov.in/</a> )		
3.	Income	(i) Income tax officer, Hyderabad (We can register for this		
	Tax	online on the following website http://www.incometaxhyderabad.gov.in/ (Telangana		
		government))		
		(ii) Income tax officer, Hyderabad (We can approach the		
		income tax department on the following website - https://www.incometaxindia.gov.in/Pages/Taxhelpline.as		
		(Indian Government))		

4.	Power	Designated Officer of State Electricity Board, Telangana		
	connectio	(This can be registered online on		
	n	https://www.tssouthernpower.com/CPDCL_Home.por tal?		
	registrati	_nfpb=true&_pageLabel=CPDCL_Home_portal_pag		
	on	<u>e_69</u> )		
5.	Electrical appliance s license	License from Bureau of Indian Standards (We can register for product certification online on the following website - <a href="https://bis.gov.in/?page_id=1707">https://bis.gov.in/?page_id=1707</a> )		

# 14. Product the list of machinery/equipment/ tools etc.

- **1.** PVCs (photovoltaic cells), IR LEDs (Infrared Light Emitting Diodes) 50 units each
- **2.** Specialized machines in our inventory specifically designed to manufacture transmitters -3 machines
- 3. Transmitter and Receiver (type1 and 2) electronic circuitry
- 30 units of type 1 and 20 units of type 2
- **4.** PCB (Printed circuit board) 50 units
- **5.** Transistors, Resistors, MOSFET, Voltage regulator 50 units each
- **6.** The warehouse that we would be taking on rent for production purpose –
- 1 warehouse of area 2000 sq. feet

# 15. Make a comparison of at least 3 brands/suppliers of the above

# **PHOTOVOLTAIC CELLS:**

XL Energy Limited	The company is partnered by Coming, Inc, and Kyocera Inc. of USA XL is one of India's leading end-to-end solutions providers in the field of solar power.  Major products: Solar cells, modules, EPC Solutions, etc.	009, Andhra Pradesh; Ph: +91- 402788 3333 (30 Lines); Fax: +91-
Titan Energy Systems Ltd	quality management system to meet ISO 90012008 standards. solar PV modules ranging from 2-300 Wp.	Contact details: 16, Aruna Enclave, Trimulgherry, Secunderabad 500015, Andhra Pradesh; Ph: 040– 27791085/ 64630900;  Fax: 040-27795629; Email: info@titan-energy.com; Website: www.titan-energy.com
Surana Ventures Ltd	plant, Hyderabad with an installed capacity of 60 MW  Major products: Solar cells PV modules, CFL/LED home	Contact details: 5th Floor, Surya Towers, Sardar Patel Road, Secunderabad 500003; Ph: 040- 27845119, 27841198; Fax: 040- 27818868; Email: surana@surana.com; Website: www.surana.com, www.suranaventures.com

# **INFRARED LIGHT EMITTING DIODES:**

# **Tools and machineries:**

Variable Auto Transformer 2amp LED Solder Paste Cow Wire Cutter Bizinto Strip Self Adjusting Wire Stripper Wire Wrapping Tool Electric Soldering Gun Solder Wire for LED Solde Iron LED Testing Series SMT Testing Series Equipments

Moonsun LED Lights	Wholesaler of led bulb	Plot No.277, Sabza
	raw material, led bulb	Colony, Near Masjid,
	making machine &	Hyderabad-500008.
	quality ready led bulb	
	in Hyderabad,	
	Telangana.	
Bhagavathi lightning	Product collection	G-7, Udyog nagar,
industry	provided by us includes	rohtak road, peeragarhi,
	Indoor and outdoor	new delhi-110041, india
	Lighting Raw Materials,	
	LED Accessories and	
	LED Driver, Led Circuit	
	in Delhi.	
Shakthi electrical	the market for	B-1, Amar Enclave,
industry	manufacturing CFL Raw	Prashant nagar,
	Materials, LED Raw	Ramdaspeth,
	Material, Ready CFL	Nagpur440015,
	Bulb, CFL Packaging	maharastra, india.
	Box, and Ready LED	
	Bulb, etc	

# **TRANSMITTER:**

TT Electronics - Optek	TT Electronics' Optek England
Technology	brand is a leading
	supplier of optoelectronic
	products for sensing,
	illumination, and
	indication applications

Escatec	PCB assembly (SMT,	malaysia
	BGA, PoP, CoB, THT)	
	Selective, reflow & wave	
	soldering	
	Plastic injection	
	moulding	
	Testing, full board &	
	batch line traceability X-	
	ray, AOI, ICT, FCT,	
	MDA	
	Complex box build	
	assembly	
	Comprehensive Supply Chain services are	
	provided.	
Enics	Enics has multiple	Switzerland
	factories in six different	
	countries – China,	
	Estonia, Finland,	
	Slovakia, Sweden and	
	Switzerland. Additionally	
	we have several offices	
	in Switzerland, Finland	
	and Hong Kong. No	
	branch in India.	

# **Transmitter and Receiver circuits:**

Hangzhou Zhengdian	Utilizing high-end	Hangzhou, Zhejiang
Technology Co., Ltd.	technology, we produce	
	more than 50 types of	
	quality products and we	
	can meet the special	
	needs of customers	
	worldwide. For	
	assurance, products meet	
	FCC, CE and RoHS	
	standards.	

SHENZHEN YAOERTAI TECHNOLOGICAL	mass production and Shenzhen, Guangdong marketing of RF products
DEVELOPMENT CO., LTD	such as wireless receivers, transmitter modules and remote controls, car and home
	alarm systems, and related accessories. We provide both OEM and ODM services.
Giant Alarm System Co., Ltd	sellers offering supreme quality of Automatic Fence Barrier Gate ,Folding Boom Barrier Gate etc. Buy Security Equipment ,Remote Control in bulk from us for the best quality products and service.

# PCB:

Sulakshana Circuits Ltd	Double sided	and Hyderabad
	Multilayer Pr	inted
	Circuit Boards (P	CB).
	Since 1990, its pas	ssion
	for producing	high
	quality PCBs, on	time
	and with excellent val	ue

Square S Micro systems	LED PCB Designing	Hyderabad
	Service, PCB Designing	
	Services, PCB Layout	
	Design Services, PCB	
	Prototype Design	
	Services are the products	
	and services provided	
Elite circuit technologies-	designed and developed	Hyderabad
	in compliance with the	
	industry norms, using	
	high grade raw material	

# TRANSISTORS, RESISTORS, MOSFET AND VOLTAGE REGULATORS

Hans Bros	Retailers,	Delhi
<b>Electronics</b>	importers	
Pvt. Ltd.	and	
	exporters ,	,
	wholesalers	
Takiar	Different	Delhi
Overseas (P)	companies	
Ltd.	products	
	are sold	
SVCS(Supe	series	Trademark: HOSSONI or OEM
r-Thin Type) Voltage Stabiliz er(AVR	singlephase voltage stabilizer is also developed	Origin: ZheJianh, China
SHRUTHI MECHATRO NICS-	products are procured from some	No. 6/829, Oppanakara Street Ram Nagar, Coimbatore- 641001, Tamil Nadu, India

quality standards

# 16. Choose and Explain why you have chosen the brand.

#### PHOTOVOLTAIC CELLS:

We will purchase photovoltaic cells from "TITAN ENERGY SYSTEMS Ltd".

It is a leading photovoltaic module solar panel manufacturer company in India. Company's manufacturing unit is located in Hyderabad, which is one the largest solar manufacturing facility in India. Titan not only produces the solar panel but they are known player in the area of design, construction, operation and maintenance of Solar system on turnkey basis. It has developed great reputation in Indian and international solar market especially in Europe and USA. As our product wireless power delivery cords for mobile phones and laptops is planned to start in L2-12&13 Hyderabad, Next Galleria @ hitech city, Near NIFT university, Madhapur, Hyderabad it is easy to get quality photovoltaic cells with ISO mark, from "TITAN ENERGY SYSTEMS Ltd".

#### **INFRARED LIGHT EMITTING DIODES:**

For infrared LED'S we can either buy them in the form of LED's or we can buy parts of LED'S and can manufacture ourselves. These industries provide both the facilities. Moonun LED lights is located at

Plot No.277, Sabza Colony, Near Masjid, Hyderabad-500008. It is wholesale industry so cost of materials, tools and products is less as compared to buy from far places.

#### TRANSMITTER:

Escatec and Enics importing from these is very expensive but TT Electronics has branches in India. Importing machinery from TT electronics is less cost and flexible. If any trouble occurs in machinery function also it easy to get the service from the Indian branch.

#### Transmitter and Receiver circuits:

We can import transmitter and receiver circuits from Giant Alarm System Co., Ltd. Hyderabad has airways facilities so we can get faster import of transmitter and receiver circuits. And Giant Alarm System Co., Ltd has good sales in India.

#### PCB:

We can purchase PCB's from Elite circuit technologies-Available at competitive prices, our range is reckoned for its salient features, which are as follows:

- 1. Optimum Performance
- 2. High Efficiency
- 3. Accurate dimensions
- 4. Longer service life
- 5. Low maintenance
- 6. Application specific Instruments
- 7. Capability to withstand site conditions
- 8. Accurate results

TRANSISTORS, RESISTORS, MOSFET AND VOLTAGE REGULATORS

# **SVC-S(Super-Thin Type) Voltage Stabilizer(AVR)**

SVC - S(super-thin type)series single-phase voltage stabilizer is also developed on the basis of SVC, it has excellent performance and smart appearance, is a first-class product that is very thin and portable.

Application for office equipment, test equipment, medical equipment, industrial automation equipment, household appliance, lighting system, communication system, etc.

#### SHRUTHI MECHATRONICS-

Transistors, resistors, electric power modules, battery and components and diodes are available in whole sale industry. Spare parts are sold here so we can find and purchase only parts which are required for us instead of buying whole machinery. This reduces cost saves our time, can get multiple parts at a single place. And it is located in Coimbatore so transportation can be done with minimum expenses.

# 17. Estimate the electric power requirement and deposits required for the power.

Electrical requirements are

2 fans

4 tube lights

10 sockets

3 switch boards

14 switches

1 small led bulb

Power battery

Wires

pump

cables

tools

machinery

Power batteries can be used as power depositors. UPS can also be used as alternative when power is not available. UPS are two types single phase and triple phase.

#### 1 Phase UPS

- 1. Back-UPS & Back-UPS Pro (600VA to 1.5kVA)
- 2. Easy UPS 1 Ph (2, 3, 5 and 6kVA)
- 3. Smart-UPS Online (up to 20kVA)

#### 3 Phase UPS

- Symmetra PX (16 kW to 500 kW)
- Galaxy VS (20kVA to 100kVA)
- Galaxy V series compatible with Lithium-ion Batteries

# [Available in 160kVA to 225kVA(480V)160 to 200kVA(400V)]

For a warehouse a highly efficient 3-phase Galaxy VS with flexible operating modes

20k to 100kVA is good enough.

18.Estimate the requirements for electrifying your office/factory: wires, cables, switches, starters motors, pumps, etc. along with their cost.

Payment made to PCB Designers= 50\*300= Rs.15000 PVCs (photovoltaic cells), IR LEDs (Infrared Light Emitting Diodes) =Rs.10,000

Specialized machines in our inventory specifically designed to manufacture transmitters – 3 machines=3\*900=Rs.2700

For wiring and electricity (Per month )= Rs10000

For fans-2\*1400=Rs.2800 For tubelights-

4\*400=Rs.1600

For sockets-10\*600=Rs.6000

For Switches-14\*300=Rs.4200

19.Estimate the cost of the buildings (if you propose to construct on your own) or submit the format for a rental/lease agreement for the same. (with format for rent/lease charges). We will be renting the building- Rs.35000 per month.

The conditions are specified as follows:-

The lessee hereby covenants with the lessor as follows:

- a. To pay the rent as aforesaid on the days and in the manner aforesaid.
- b. To pay the electricity bills for the electricity consumed for lighting the demised premises and for operation of air conditioners, fans, computers and electrical appliances in the demised premises.
- c. Not to make any structural alterations into or upon the demised premises or make any alterations or additions to the external appearance or any part of the demised premises without the previous consent of the Lessor in writing.
- d. To use the demised premises for office purposes of the Lessee.
- e. Not to do or suffer to be done in or upon the demised premises or other parts of the said building in common with other persons anything whatsoever, which may be or become a nuisance or annoyance to or in any way interfere with the quite or comfort of the Lessor or other Lessees and occupiers of the said building.
- f. Not to place or keep or permit to be placed or kept on the demised premises any offensive, dangerous or highly

inflammable or explosive material or any other article or things, which may constitute a danger, nuisance or annoyance to the demised or surrounding premises or the owners or occupiers thereof.

- g. Not to sub-let, transfer, assign or part with the possession of the demised premises or any part thereof.
- h. To permit the Lessor, his servants, employees or agents duly authorized by him to enter into and upon the demised premises at all reasonable times for viewing the condition of the demised premises or doing such works or things as may be requisite or necessary for any repairs, alterations, servicing or improvements to the demised premises.
- i. To hand over the peaceful possession of the demised premises at the end or the sooner determination of the said term together with all the Lessors fixtures and fittings in as good condition as received, fair wear and tear, damage by fire, acts of God, riots or other civil unrest, war, enemy action and/or other cause not within the control of the Lessee, being excepted.

Not to obstruct or suffer to be obstructed the entrance hall, entrances, doorways, passages, staircase or lifts.

To replace all broken fittings and fixtures by equally good or better substitutes.

1. To insure and keep the demised premises insured against loss or damages by fire with an insurance company approved in writing by the

Lessor for an amount which shall not be less than

- 2. To Lessor doth hereby covenant with the Lessee as follows:
- a. That on the Lessee paying the rent on the due dates thereof and in the manner herein provided and observing and performing the convents, conditions and stipulations herein contained and on his part to be observed and performed, shall peaceably and quietly hold, possess and enjoy the demised premises during the term without any interruption, disturbance, claim and demand by the Lessor or any person lawfully claiming under or trust for the Lessor.
- b. To keep the interior, exterior of the demised premises, the drainage thereof in good and tenable repair and condition.
- c. To keep the entrance, doorways, entrance halls, staircases, lobbies and passages in the said building leading to demised premises well and sufficiently cleaned and lighted at his own expense.
- d. To pay rates, taxes, assessment, duties, cess, impositions, outgoings and burdens whatsoever payable to State or local or other authority.

# 20. Prepare a list of suppliers and customers (if applicable). Suppliers.

- Digikey Electronics pvt. Limited or any other company that could provide us with reliable electrical components at an economical rate.
- Small private firms that would provide us with PCB designers who would works at nominal salary.

- Small agencies that supply skilled workers who could operate machines.
- Agency that would be lending us a warehouse for production purpose on Rent.

#### Customers:-

- -Coffee shop/restaurant/hotel owners who want to lure customers by automatic electronic device charging perks to them.
- Middle -class and upper class families who want to have
   a wireless phone charging setup for their personal space/homes.
- -People of age groups 12-45 years who use electronic devices more frequently.

#### **Work Contribution:**

#### Avina-

- 1. Prepare an executive summary
- 2. What is going to be the legal structure of your company?
- 3. Who is going to handle which area of work? Eg: Technical, Sourcing, Marketing and

Sales, Finance and accounting, Administration (HR, Legal, Insurance, security IPR, etc.) etc.

4. Organizational chart

# Tanya Sharma-

- 5. Conduct a market survey for your product/service.
- 6. Perform a competitor analysis
- 7. Feasibility analysis

#### **B.R.Vasanth-**

- 8. Mention the USP of your product/service
- 9. Marketing strategy10. Sales strategy

# **Arunima Garg-**

- 11. Find out the GST for the product/service
- 12. Pricing strategy
- 13. List out the clearances and Licenses that you need to obtain. Also mention the authorities/offices from which you should get them.
- 14. Product the list of machinery/equipment/ tools etc.

# Sowmya Sree-

- 15. Make a comparison of atleast 3 brands/suppliers of the above
- 16. Choose and Explain why you have chosen the brand.
- 17. Estimate the electric power requirement and deposits required forthe power.

#### Barkha-

- 18. Estimate the requirements for electrifying your office/factory: wires, cables, switches, starters motors, pumps, etc. along with their cost.
- 19. Estimate the cost of the buildings (if you propose to construct onyour own) or submit the format for a rental/lease agreement for the same. (with format for rent/lease charges)
- 20. Prepare a list of suppliers and customers (if applicable)

#### **REVIEW-3**

# LEAN START-UP MANAGEMENT MGT 1022 FALL SEMESTER 2019-20

Name: TANYA SHARMA

Reg. No.: 17BIT0230

**SLOT:TE1** 

B. Tech. (Computer Science) Engineering



# SCHOOL OF MECHANICAL ENGINEERING, VIT VELLORE

**Under the guidance of**: Prof. Vezhavendhan R

# **TEAM MEMBERS:**

Avina-17BCE0898

Barkha-17BCE0314

Arunima Garg-17BCE0844

J. Soumyashree-17MIS0009

B.R. Vasanth-17MIS0406

Tanya Sharma-17BIT0230

#### 1. Total Capital requirements (with split up for each)

Total requirement is Rs.2.78 lakh.

#### a. Startup costs

Rs.55,000

#### b. Fixed capital

Initial Machinery cost: Rs 1.1 Lakh (3 machines-transmitter, receiver (type 1/2))

Payment made to Technical advisors and trained experts:

Rs 75000 c. Working capital

Payment made to PCB Designers= 50\*300= Rs.15000 PVCs (photovoltaic cells), IR LEDs (Infrared Light Emitting Diodes) =Rs.10,000

Specialized machines in our inventory specifically designed to manufacture transmitters – 3 machines=3\*900=Rs.2700

For wiring and electricity (Per month )= Rs10000

For fans-2\*1400=Rs.2800 For tubelights-

4\*400=Rs.1600

For sockets-10\*600=Rs.6000

For Switches-14\*300=Rs.4200

#### d. Capital for contingencies

Rs.60,000

2. List of Incentives, Grants and Subsidies available from Govt. in general and in specific for your product. And how they would reflect in the financial statements.

- Bank Loans:

- Government Programs that offer Start-up Capital:

The government of India has initiated many funding schemes to encourage budding entrepreneurs.

Under the Multiplier Grants Scheme(MSG) headed by the Department of Electronics and Information

Technology(DeitY), provides a grant up to 2 Cr for budding startups. Department of Electronics and Information Technology (DeitY) is implementing Multiplier Grants Scheme (MGS). MGS aims to encourage collaborative R&D between industry and academics/ R&D institutions for development of products and packages. Under the scheme, if industry supports R&D for development of products that can be commercialized at institution level, then government will also provide financial support that is up to twice the amount provided by industry. The proposals for getting financial support under the scheme are to be submitted jointly by the industry and institutions.

The Scheme is extended upto 31st March 2020 with a total outlay of Rs. 36 Crores and DeitY contribution of Rs. 24 Crore. The Technology Development Council (TDC) budget head will be used for implementation of this scheme. Based on this pilot implementation and feedback, the scheme would be reviewed by Working Group.

We have also decided to pitch our idea in national competitions- like SMART INDIA HACKATHON. Winning the competition will help us to get a grant uptil Rs. 10 Lakh which will be sufficient for the initial investment of our lean startup.

#### 3. Source of funds

Angel Investors.

An angel investor (also known as a private investor, seed investor or angel funder) is a high net worth individual who provides financial backing for small start ups or entrepreneurs, typically in exchange for ownership equity in the company. Often, angel investors are found among an entrepreneur's family and friends. The funds that angel investors provide may be a one-time investment to help the business get off the ground or an ongoing injection to support and carry the company through its difficult early stages.

There is a website called hyderabadangels.com in which we can contact several angel investors for funding. One of the angels(Amul Sanghani) from that website has approved to our idea and has started funding our needs for the start up of ours.

#### 4. Production cost

Production or product costs refer to the costs incurred by a business from manufacturing a product or providing a service. Production costs can include a variety of expenses, such as labor, raw materials, consumable manufacturing supplies, and general overhead. Product costs may also include those incurred as part of the delivery of a service to a customer. Taxes levied by the government or royalties owed by natural resourceextraction companies also are treated as production costs.

(Total direct labor + Total direct materials + Consumable supplies + Total allocated overhead) ÷ Total number of units= **Product unit cost**Total direct labor= Rs. 30000

Total direct materials= Rs. 40000 (PVCs,LEDs,wires,transmitters,recievers)

Consumable supplies= Rs.4000 (Pens,papers,cartridges,screws)

Total allocated overhead= Rs.500(per head labor cost per day)+ Rs. 50 (per head snacks)+ Rs.

200(electricity)

=Rs. 750(per day) =Rs. 22500(per month)

Production cost=Rs. 96500

#### 5. Income statement

Technology building cost: Rs.900 per transmitter, Rs 900 per receiver of type1(low current rating -for phones) and Rs 1000 per receiver of type-2(high current rating- for Laptop). Initially, we would be hiring skilled people to make the electronic hardware in a warehouse that we would be taking on rent in Vellore. Our workers will be trained by our technology experts to build the final market product. Later on we have planned to outsource the work of manufacturing and just limiting ourselves to providing wireless charging services.

**Fixed Cost:** 

Initial Machinery cost: Rs 1.1 Lakh (3 machines-transmitter, receiver (type1/2)) Payment made to Technical advisors and trained experts: Rs 75000 Variable Cost:

Warehouse rent: 2000 sq. feet, Rs 35000 per month Salary to be paid to PCB Designers: Rs. 300/ PCB

Labour salary: Rs 10000 p.m. per person Raw Material Cost per Transmitter: Rs 900

Raw Material cost of receiver of Type-1(low current rating: 0.3-2 Amps): Rs.900 Raw Material cost of receiver of Type-2(high current rating: 2-7Amps): Rs.1000 wages to be paid to product repair persons (up till 1 year post sales): Rs. 150 per Customer visit Revenue Structure:

Our product will need an initial investment of Rs.2000 per transmitter (for 250 feet sq. coverage area) installed at home and running cost of Rs.5 per KWhour of energy consumed by the consumers.

One transmitter will be consuming about 50 Watt Hour of power.

Also, customers will have to get installed a PCB consisting of a receiver machinery which is in essence a photovoltaic cell that will be capturing the infrared radiation. This will require an additional investment of about Rs 2000 extra for type 1 receiver and Rs.2200 for type 2 receiver.

Overall price to be paid by customers for coverage of 250 sq. feet area = Rs 4000/Rs 4200(type1/2) Cost of 1 KWh of electricity=Rs 5

Consumption of 1 unit i.e. (1 transmitter and 1 receiver(type 1)) per hour= 50 Watt Running cost per transmitter for 1 day (per unit)=24 hour\*50\*5\*10^-3=Rs 6/day Technology Sale price: Rs.2400 per transmitter, Rs 2000/2200 per receiver of type1/2.

#### **INCOME STATEMENT:**

Income:

Total revenue earned on selling of 50 units =30\*2000+20\*2200+50\*2000=Rs 204000

#### **EXPENSES:**

Estimated units sold of SANS-WIRE product per month: 50 units[ 30 (type-1) and 20(type-2)]

Manufacturing cost of 1 transmitter= Rs 900;

Manufacturing cost of 1 receiver= Rs 900/1000 (type1/2)

Total variable cost incurred per month: 30\* ( 900+900)= INR 54000 (type-1)

(RAW MATERIAL) 20\* (900+1000)= INR 38000 (type-2)

Payment made to PCB Designers= 50\*300= Rs.15000

Payment made to warehouse machine operators/Labour cost: RS. 30000

Salary to repair persons: (Depends on no. of casualities/complaints reported per month)

Assuming 5 complaints registered p.m.: 5\*150=INR 750

Warehouse rent= Rs. 35000

Electricity bill at warehouse/month: Rs10000

Publicity cost/month: Rs 7000

Total Variable cost of selling 50 units: Rs. 1,89,750

Sale price of 1 transmitter= Rs 2000;

Sale price of 1 receiver= Rs 2000/2200 (based on type1/2)

#### Profit:

Profit earned per month=Rs 14,350

Profit earned per year=Rs 12\*14350=RS 1,72,200

Total fixed cost= Machine cost+ Investment on human

capital = Rs.1.85 lakh

Payback period= 1.85 lakh/172200= 1.074 years

#### 6. Cash flow statement

#### CASH FLOW STATEMENT – june- October 2019

Cash flow from operating activities:

Income- Rs.204000

Employee loans- Rs - 6000

Inventory asset- Rs -18000

Sales tax payable- Rs 1000

Net cash provided- Rs -23000

#### **Cash flow from investing activities:**

Transport- Rs - 40000

Prepaid insurance- Rs 2500

Net cash provided- Rs - 37500

#### **Cash flow from financing activities:**

Loan-Rs -900

Equipment loan- Rs -4000

Earnings- Rs 9000

Net cash provided- Rs 4100

*Net cash increased for period- Rs -56400* 

Cash at beginning of period- Rs 204000

Cash at end of period- Rs 147600

# 7. Projected balance sheet for 3 years

	Balance Sheet		
Assets			
Current assets:	2017	2018 🔻	2019
Cash	19,000.00	19,300.00	19,500.00
Investments	2,500.00	3,000.00	3,200.00
Inventories	45,000.00	46,500.00	46,800.00
Accounts receivable	22,000.00	22,700.00	23,300.00
Pre-paid expenses	5,000.00	5,200.00	5,250.00
Other	5,000.00	5,100.00	5,300.00
Total current assets	98,500.00	1,01,800.00	1,03,350.00
Fixed assets:	~ 2017 ~	2018 🔻	2019 -
Property and equipment	85,000.00	85,700.00	86,100.00
Leasehold improvements	45,000.00	45,500.00	46,000.00
Equity and other investments	15,000.00	15,500.00	16,000.00
Less accumulated depreciation	(6,500.00)	(6,300.00)	(6,200.00
Total fixed assets	1,38,500.00	1,40,400.00	1,41,900.00
Other assets:	₹ 2017 ₹	2018 -	2019
Goodwill	28,500.00	30,000.00	32,000.00
Total other assets	28,500.00	30,000.00	32,000.00
	2,65,500.00	2,72,200.00	2,77,250.00
Total assets	2,65,500.00	2,72,200.00	2,77,250.00
_	2,65,500.00	2,72,200.00	2,77,250.00
Total assets	2,65,500.00	2,72,200.00	
Total assets Liabilities and owner's equity Current liabilities:			2019
Total assets  Liabilities and owner's equity  Current habilities:  Accounts payable	2017	2018	<b>2019</b> 42,500.00
Total assets  Liabilities and owner's equity  Current liabilities:  Accounts payable  Accrued wages	<b>2017</b> 46,000.00	2018 44,000.00	<b>2019</b> 42,500.00 13,000.00
Total assets  Liabilities and owner's equity  Current liabilities:  Accounts payable  Accrued wages  Accrued compensation	2017 T 46,000.00 15,000.00	2018 - 44,000.00 14,500.00	<b>2019</b> 42,500.00 13,000.00 600.00
Total assets  Liabilities and owner's equity  Current liabilities:  Accounts payable  Accrued wages  Accrued compensation  Income taxes payable	2017 v 46,000.00 15,000.00 500.00	2018 44,000.00 14,500.00 550.00	<b>2019</b> 42,500.00 13,000.00 600.00 7,300.00
Total assets  Liabilities and owner's equity  Current liabilities:  Accounts payable  Accrued wages  Accrued compensation  Income taxes payable  Unearned revenue	2017 46,000.00 15,000.00 500.00 5,000.00	2018 44,000.00 14,500.00 550.00 6,500.00	2019 42,500.00 13,000.00 600.00 7,300.00 16,000.00
Total assets  Liabilities and owner's equity  Current liabilities:  Accounts payable  Accrued wages  Accrued compensation  Income taxes payable  Unearned revenue  Other	2017 46,000.00 15,000.00 500.00 5,000.00 15,000.00	2018 44,000.00 14,500.00 550.00 6,500.00 15,500.00	2019 42,500.00 13,000.00 600.00 7,300.00 16,000.00 17,500.00
Total assets  Liabilities and owner's equity  Current liabilities: Accounts payable Accrued wages Accrued compensation Income taxes payable Unearned revenue Other Total current liabilities	2017 46,000.00 15,000.00 500.00 5,000.00 15,000.00 19,500.00	2018 44,000.00 14,500.00 550.00 6,500.00 15,500.00 18,000.00	2019 42,500.00 13,000.00 600.00 7,300.00 16,000.00 17,500.00 96,900.00
Total assets  Liabilities and owner's equity Current liabilities: Accounts payable Accrued wages Accrued compensation Income taxes payable Unearned revenue Other Total current liabilities Long term liabilities:	2017	2018 44,000.00 14,500.00 550.00 6,500.00 15,500.00 18,000.00 99,050.00	2019 42,500.00 13,000.00 600.00 7,300.00 16,000.00 17,500.00 96,900.00
Total assets  Liabilities and owner's equity  Current liabilities: Accounts payable Accrued wages Accrued compensation Income taxes payable Unearned revenue Other Total current liabilities Long-term liabilities: Mortgage payable	2017	2018 44,000.00 14,500.00 550.00 6,500.00 15,500.00 18,000.00 99,050.00	2019 42,500.00 13,000.00 600.00 7,300.00 16,000.00 17,500.00 96,900.00
Total assets Liabilities and owner's equity	* 2017	2018 44,000.00 14,500.00 550.00 6,500.00 15,500.00 18,000.00 99,050.00	2019 42,500.00 13,000.00 600.00 7,300.00 16,000.00 17,500.00 96,900.00 2019 37,300.00
Total assets  Liabilities and owner's equity  Current liabilities: Accounts payable Accrued wages Accrued compensation Income taxes payable Unearned revenue Other Total current liabilities  Long term liabilities: Mortgage payable Total long-term liabilities	2017	2018 44,000.00 14,500.00 550.00 6,500.00 15,500.00 18,000.00 99,050.00 2018	2019 42,500.00 13,000.00 600.00 7,300.00 16,000.00 17,500.00 2019 37,300.00 2019
Total assets  Liabilities and owner's equity  Current liabilities: Accounts payable Accrued wages Accrued compensation Income taxes payable Unearned revenue Other Total current liabilities  Long term liabilities: Mortgage payable Total long term liabilities  Owner's equity:	2017	2018 44,000.00 14,500.00 550.00 6,500.00 15,500.00 18,000.00 99,050.00 2018	2019 42,500.00 13,000.00 600.00 7,300.00 16,000.00 17,500.00 96,900.00  2019 37,300.00 2019 1,27,300.00
Liabilities and owner's equity Current liabilities: Accounts payable Accrued wages Accrued compensation Income taxes payable Unearned revenue Other Total current liabilities Long term liabilities: Mortgage payable Total long term liabilities Owner's equity: Investment capital	2017	2018	2019 42,500.00 13,000.00 600.00 7,300.00 16,000.00 17,500.00 96,900.00 2019 37,300.00

Balance - -

#### 8. Break even analysis

Variable costs for 50 units: Rs. 189750

Variable cost per unit = Rs. 3795 Sale price for 50 units: Rs. 204000 Sale price per unit = Rs. 4080 Desired profits = Rs. 150000 Total fixed costs: Rs. 1,85,000

The break-even point per unit = fixed costs / contributions per

unit = 185000/285 = 650 units

This number of units can be shown in rupees = 650 units X selling price of Rs. 4080 per unit => Break Even Sales at 650 units x Rs. 4080 = Rs. 26,52,000. (Break-even point in rupees)

#### 9. Profitability analysis

Presuming the average electrical engineer's salary is \$65,000 dollars a year, the individual hourly rate of the design team members would be \$31 an hour. There are six members on the wireless power team spending an average of 8 hours a week developing the system. The cost of copper coil is expected to be \$15 dollars a foot with six feet going into each system. The power supply, resistors, inductors, and capacitors necessary to develop the oscillator are expected to cost an additional \$15 dollars. The entire system will be built into an electrical chasis expected to cost \$10 dollars. This brings the total cost of development to \$25,336 dollars with the cost of each subsequent unit costing \$30 should it go into production. The suggested selling price is determined based on 1,000,000 units expected to be sold over the

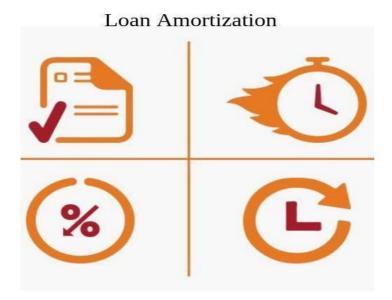
course of 5 years. Based on the development of \$25,336 and 1,000,000 units being sold the suggested price is \$33. At this price, the development costs would be regained after 844 units were sold with the remaining balance going to profit and future developments.



#### 10. Repayment schedule (Principle and Interest)

An amortization schedule is a table detailing each periodic payment on an amortizing loan (typically a mortgage), as generated by an amortization calculator. Amortization refers to the process of paying off a debt (often from a loan or mortgage) over time through regular payments. A portion of each payment is for interest while the remaining amount is applied towards the principal balance. The percentage of interest versus principal in each payment is determined in an amortization schedule. The schedule differentiates the portion of payment that belongs to interest expense from the portion used to close the gap of a discount or premium from the principal after each payment.

- When used in the context of a "wireless power bank" purchase, amortisation is the process by which loan principal decreases over the life of a loan, typically an amortizing loan. As each mortgage payment is made, part of the payment is applied as interest on the loan, and the remainder of the payment is applied towards reducing the principal. An amortisation schedule, a table detailing each periodic payment on a loan, shows the amounts of principal and interest and demonstrates how a loan's principal amount decreases over time. An amortisation schedule can be generated by an amortisation calculator. Negative amortisation is an amortisation schedule where the loan amount actually increases through not paying the full interest.
- •In business, amortisation allocates a lump sum amount to different time periods, particularly for loans and other forms of finance, including related interest or other finance charges. Amortisation is also applied to capital expenditures of certain assets under accounting rules, particularly intangible assets, in a manner analogous to depreciation.
- •Amortization schedules run in chronological order. The first payment is assumed to take place one full payment period after the loan was taken out, not on the first day (the origination date) of the loan. The last payment completely pays off the remainder of the loan. Often, the last payment will be a slightly different amount than all earlier payments.
  •In addition to breaking down each payment into interest and principal portions and
- •In addition to breaking down each payment into interest and principal portions, an amortization schedule also indicates interest paid to date, principal paid to date, and the remaining principal balance on each payment date.



#### 11. Exit strategy/plan

The best exit strategy or plan for our product can be Initial Public Offering (IPO). IPO is the first sale of stock by a company. They can be best suited for our product as they often generate publicity by making their products known to a new group of potential customers. This may thus lead to an increase in market share for the company. Another big advantage is that IPOs offer financial benefit in the form of raising capital. Capitals can be used for funding research and development (R&D), fund capital expenditure, or even used to pay off existing debt. As a publicly listed company, it becomes easier to carry out mergers and acquisitions. The processes get simpler and valuations are largely market driven. Listing

gives an opportunity to entrepreneurs to liquidate a part of their holdings. Also, if the venture has accessed venture capital in the past, listing gives an opportunity to venture capitalists to liquidate all or part of their holdings. Yet one more advantage of going public involves the ability to use stock in creative incentive packages for management and employees. Offering shares of stocks or stock options as part of compensation enables businesses in attracting better management talent, and providing them with an incentive so that they perform well. Employees who become part owners of the company through a stock plan might be motivated by sharing the company's success.

#### 12. Conclusion

We were successful in making a business plan for our product SANS-WIRE which enables wireless charging of electronic devices. It is produced in a warehouse in Hyderabad with minimal investment on fixed capital which will be sold through online selling methods on sites like Amazon, Flipkart. As the popularity grows, we would partner with dealers and electronic shop owners of Chennai and make our product available in mall outlets/ electronic shops as well. Its unique features are nominal running cost, reliable, easy to use, no interference with other communication protocols / Bluetooth / Wi-Fi and being harmless to humans and pets. This product will be very useful to hotel/restaurant owners, in clinics and passengers on railway stations. The main aim of our product to avoid carrying hassle-free cable cords from place to place or searching for plug points in home for charging will be achieved.

-----