

School of Science and Technology
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New Business Venture

ISYS 4051

Business Proposal

Hi-Tech Engineering Software

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Table of Contents

1.Executive Summary	4
2.About the Company.....	5
2.1 Mission	5
2.2 Aims and Objectives of HiTech	5
3. Products/Service offered by the Company	6
4. Marketing Plan	8
4.1 Market Research	8
4.2 Economics Facts about the Industry.....	9
4.3 Product	9
4.4 Customer	11
4.5 Competition	11
4.6 Niche	11
5. Strategy	12
5.1 Promotion	12
5.2 Promotional Budget	12
5.3 Pricing	12
5.4 Selected Area	13
5.5 Channels of Distribution	14
5.6 Predictions of Sales	14
6.Plan of Action	15
6.1 Production.....	15
6.2 Location	16
6.2.1 Access.....	16

6.3 Legal Framework.....	16
6.4 Personnel	16
6.5 Inventory	17
6.6 Suppliers.....	18
6.7 Credit Policies	18
6.8 Account Receivable Management.....	18
6.9 Account payable of Management	19
7. Oraganisation and Management.....	19
7.1 Assistance from Experts and Consultants	19
8. Personal Financial Statement	20
9. Start-up Expenses and Capitalization	21
10. Financial Plan	21
10.1 12-Month Profit and Loss Projection	21
10.3 Projected Cash Flow.....	24
10.4 Opened Day Balance Sheet.....	25
10.5 Break Even-Analysis	28
Reference list.....	31

1. Executive summary

In this comprehensive business proposal, a housing application for HiTech Engineering Software is being discussed. The managerial and technical aspects of the application will be separate. Users may use the app to learn how to build their own dwellings by following along with the processes it outlines. The management team is in charge of keeping track of any paperwork that users may need to comply with local regulations (Eldejany, 2019). There is also a technical aspect that deals with the technologies needed to build the dwellings. Vendors in the state will be made available to consumers, allowing consumers to get as much for their money and effort when shopping.

The application may eliminate the need to hire a specialist in the industry. According to Eldejany (2019), apps like this one are designed to help users through the process by providing step-by-step instructions. In addition to offering management services, the application will give technical services such as guidance on construction requirements, such as the choice of blocks, iron, or concrete. Vendors may be able to utilise the platform to market their products and services if the app has a vendor side. Engineers will also be included in the application to help customers understand what is expected of them and how to design structures that are solid and genuine. The growing number of individuals desiring to construct their own houses gave rise to this business concept.

Sophisticated housing and engineering data processing and operations are handled by the programme. The company provides five separate product and service categories, such as software for home design and engineering, software for construction research and modelling, and software for dump layout and recovery (Yang *et al.*, 2020). HiTech is a modern corporation that combines cutting-edge technology with mining industry consulting services. When it comes to the first few years of business, HiTech forecasts solid revenue growth, with an upward trend continuing until year 5. As a proportion of sales, gross margin will be robust, and net income will continue to expand. The software's success will be determined by its ability to simplify the building process for users and make it simpler for them to work on their new homes as a result.

2. About the company

Design optimization, home design, house plan scheduling, and dump planning and rehabilitation all fall within the purview of HiTech Engineering Software, a UK-based software firm that offers a broad variety of technology solutions for housing basic design and construction engineering. Under the UK Foreign Investment Laws, HiTech is registered as a UK-based business in London and has been granted approval for 2 million shares of the company. A London-based businessman is the only remaining minority stakeholder. HiTech creates innovation and architectural designs, regulatory analysis and simulation, and production planning and control programmes for the whole housing and building sector (Yang *et al.*, 2020). HiTech designs. The company specialises in the development of high quality, user friendly, small, and minimum software for computer systems. Business processes include processing of data and reverse engineering techniques.

2.1 Mission

The App may be used by anybody who wants to construct a house. UK will be the first country to get the app, followed by the rest of the world. As part of the company's fundamental objective, HiTech aims to become the UK's top supplier of construction and housing designs, as well as a provider of construction-related goods and services (Lee and Yun, 2021). As a result, the finest design preparation procedures are developed to assure the most efficient and effective activity possible for the customers. As part of HiTech's commercial business, the construction sector is often considered as surpassing client expectations via exceptional consulting services.

2.2 Aims and Objectives of HiTech

The company's goal is to develop consistently in the market and improve its sales revenues and profit every year. Another goal is to raise consumer awareness of the organisation and lessen competition risk by partnering with other technology suppliers.

HiTech's financial goals are as follows:

- Revenue has consistently increased over the last five years as a result of the effort.
- As a proportion of sales, top-tier overall gross margins are better
- Net earnings are progressively increasing from year to year.

HiTech's marketing goals include:

- On a consistent basis, meet the next five-year revenue growth objective.
- Extend the knowledge of your customers throughout the preparation process.
- It is important to build new alliances in order to lower the level of competition amongst infrastructure providers, as well as the level of uncertainty in the market.

Vice president and president own and run the private limited firm. In order to keep the administration centralised and to oversee the business, this type of ownership has been opted for there are many major enterprises that rely on the company's services to handle massive amounts of data successfully. Other than that, HiTech will also service the needs of government agencies. According to Radl and Kaiser (2019), product and service categories such as house design and engineering, geological research and modelling, dump layout and recovery software will be a main emphasis for this business. In the UK's computer sector, the fastest-growing category is building and housing software. The strength of the market in which a firm competes and establishes its positioning for its services is a factor in boosting software market performance.

3. Product/Services offered by the company

In this scenario, the application will be a software programme that can be downloaded through Google Play. To begin, the application will be launched in the United Kingdom, then thereafter in chosen regions throughout the globe, in the first phase of the company. In order to assist users in the construction of their own homes, the application was created. According to Romero et al. (2021), users may get information on anything from what paperwork they'll need to finish their homes to how to utilise the software. The users will have to fill out official forms before they can proceed with building their homes. Building residences without adequate

documents might lead to negative implications in the future for a large majority of the UK inhabitants who do not know what they need to do. As far as technological considerations are concerned, the vast majority of consumers are reliant on the recommendations of suppliers.

Vendors, on the other hand, tend to focus on their own interests rather than that of their customers. There is a risk that the customer may be under-served. It's in situations like these that an app like this comes in handy since it can provide impartial advice depending on the user's location and the kind of soil on which they're constructing (Bonfanteet *al.*, 2018). Before making any recommendations, the app will take the users' location and budget into account before making any recommendations. Citizens in each state are expected to abide by the laws of their own states. According on their requirements and what they've said, the application will deliver tailored advice. The programme is designed to make the process of purchasing a house as simple as possible for future homeowners, with the goal of making building simpler for them (Eldejany, 2019). Via the company's website or from the Google Play store, anyone can get this app. However, customers will have to pay a monthly membership fee in order to enjoy the company's services. A one-week trial period will be provided to them, during which they may decide whether or not they choose to continue using the company's products and services. According to Ballantyne et al. (2018), this is sufficient time to determine whether the company's services are beneficial in the different circumstances. The following are some of the services that the firm provides:

Administrative services:

- Expertise in the use of public services
- Following the rules and regulations
- The users' paperwork and permissions, if any are required.

Services for Technical Support

- Useful materials that may be accessed
- For the users to create their housings, the vendor side of the company is necessary

The business will stay in regular contact with its customers and look for ways to improve and modify things. First, a broad strategy and professional brochure outlining the company's intangible assets and how they will be used to benefit customers is being created as part of the first establishment fees. However, Ikram *et al.* (2021), stated that there would be a lot of information and direct mail needed for the first business forums. The consumer genuinely requests the company's services and help. By showcasing and showcasing technology on-site, the services continue.

4. Marketing plan

An Engineering Housing Application plan from the firm HiTech Engineering Software will offer a quick outline of the company's advertising and promotion objectives for the next year and define the housing construction core market and consumer demands. HiTech Engineering Software will talk about who their primary competition is, how they are better than them, and what makes their product stand out so that they can carve out a specific place in the market for themselves (Ezebilo, 2020).

4.1 Market Research

Over the last five years, the economy has grown an average of 22% as a result of significant urban population expansion, which has resulted in housing shortages and terrible living conditions in the city. Aiming to increase the value of a project using software technologies is the primary goal of UK house construction, which lacks indigenous engineering tools and imports information technology techniques (Chou *et al.*, 2020). According to the research, the country's current need-based housing deficit is around 19 million units.

At 20.65 percent yearly increase in demand for low-cost, cost-effective, and pleasant urban housing is predicted over the next five years. Many subsidized housing programs have been launched by the UK government, however excess cost control must be designed from the outset of the planning process and continue throughout the project's lifespan, which is what HiTech is striving for. It is possible to reduce costs while maintaining or even enhancing value and efficiency by using a cost optimization strategy (Adabreet *et al.*, 2020).

As economic property continues to grow in addition to the housing industry, the need for construction products like concrete-based sand, and hard rock, as well as various other things derived from sandstone or quarries material like bricks and tiles, is increasing. Exports of these items are expected to increase, which will lead to an increase in want.

If the urban population continues to grow, the necessity for engineering housing application software technology will grow in the future abruptly. The government's efforts to encourage the mining industry by giving monetary incentives and tax deductions on imported processes and materials are crucial factors (Alon *et al.*, 2020).

4.2 Economic facts about the Industry

The housing application sector in the United Kingdom is undergoing a fast transformation because of construction firms' emphasis on more streamlined and cost-effective home-building processes. Because of this, the HiTech software business is likely to grow in the future. Strategic efforts like leveraged buyouts are being implemented by the firms in order to increase their company operations. The present market need is for high-tech items with swift and effective procedures that provide distinctive solutions (Trudeau and Cope, 2018). The engineering housing application market in the United Kingdom is being directed by advancements in home construction equipment technology, which opens up new market prospects.

High operational costs and large capital expenditure are some of the Housing Application industry's challenges in entering the market. Training construction workers on new technologies is also a significant investment. On top of all that, promoting the product in a market where there are already a significant number of major competitor's means spending a lot of money. HiTech, on the other hand, has been able to overcome this obstacle via the use of sound financial strategy and execution.

4.3 Product

Buyers are not looking for bells and whistles rather; they want well-thought-out home plans that will provide tangible results and help cities meet the needs of an

ever-increasing population. Customers may buy and learn about the housing industry from HiTech Engineering Software, which plays a crucial role in every stage of home development by implementing technology instruments. As an integrator, HiTech Engineering Software for housing application gives architectural assemblage an advanced software to monitor the progress of the project (Lisi,2019).

HiTech Engineering Software is special in the home construction field because of its three different aspects which is integrated system and the strengthening of existing technological processes,

- Diverse Product Line

HiTech aims to become the UK's top supplier of construction and housing designs, as well as a provider of construction-related goods and services to the builders.

- Connecting to the UK's largest housing site: Mint Livin

HiTech is approaching to deliver a wide variety of rented or buying house options to the customer by attaching the software application with the largest housing searching site of the UK, MintLivin. Where the customer need not enter the site of MintLivin rather by using the software only they will have access over the site which will help people to select their desirable house option accordingly.

- Ensuring appropriate legal aspects

HiTech will help the builder as well as the regular buyer by helping them to channelize the legal matters that are required during the process of house buying or renting. They will be able to take advantage of major tax possibilities, including a review of property taxes via appropriate software usage and the user's paperwork and permissions if any are required.

In order to maximize the project's worth, value engineering may be used in real estate projects in order to reduce costs, duration, and excellence. An overview of the advantages of strong value engineering including the use of alternative materials to increase the productivity of a construction project will be worthy.

4.4 Customer

Within the first five years of operation, HiTech will focus on a larger site of domestic housing demand in both the urban and rural areas to meet the need of buyers. To address the scarcity of property sector workers, UK's renting agents, and all UK sales agents, including building developers, as well as the normal people can be helpful by the use of this housing application software as the application is providing versatile facilities through one medium. Using housing application software, HiTech regulation has the ability to elevate standards, increase employee skill set and put a stop to unethical practices in these industries.

4.5 Competition

There has been an increase in the number of properties selling for more than their listed price since the property market reopened in the UK last spring, increasing the level of market rivalry. The newest Land Registry data shows that 37 percent of properties sold for more than their actual listed price in January, according to an online property market (He *et al.*,2019).

In order to meet the competition in the housing sector of the UK, HiTech needs to be much upgraded by serving the much necessary steps that are required in order to develop or buy a house. There is a huge competition where already Zoopla, UK Realty ImmoScout24 is in the run to serve the housing sector in various ways, HiTech must stay in regular contact with its customers and builders to look for ways to improve and modify things according to the necessity. They should build up a broad strategy and professional brochure outlining for the company and how they will be used to benefit customers and builders.

4.6 Niche

HiTech's way to obtain intellectual assets and cutting-edge technology, as well as its ability to tailor its location, are critical to its success. Housing design scheduling and systematic analysis systems are supported by HiTech. Additionally, HiTech stands out for its adaptability and ability to persuade when put to work. HiTech's goal is to become a customer-focused firm by using both human capital and cutting-edge technology. Customers will see the benefits of HiTech's narrow focus on certain operations inside their supply chain.

5. Strategy

5.1 Promotion

The goal of HiTech Commercial outdoor activities is to inform, persuade, or jog the memory of the intended audience or purchasers about the house construction area. This means that all promotion focus remains on generating a strong industry recognition and an authentic main product profile for architectural services and goods. Marketing to consumers is not the same as marketing to businesses. Marketing and sales are being used by HiTech to promote the building. To ensure the long-term success of businesses, this housing application provides clients with an upgrade in economic output recurrence program and maintains a tight relationship with its client base.

5.2 Promotional Budget

Celebrity endorsements of HiTech goods and services will be used to spread the word about their offerings. Additionally, the company's president will engage in direct selling to increase the corporation's merchandise sales.

Promotional Budget	
Particulars	Budget
Owned Media	\$13,000.00
Video Advertising	\$28,000.00
Marketing	\$50,000.00
Promotions	\$35,000.00
Magazines	\$20,000.00
Total	\$122,000.00

5.3 Pricing

The goal of our pricing strategy is to boost sales by establishing a reasonable price point for our customers. In order to accomplish so, we will do a market analysis of

similar software and determine whether or not we can afford to buy it. They will make projections on how much demand there will be for our goods. Every day, the requirement for these items grows. Hence, they will have an excellent deal based on the cost of manufacturing and the prices of their rivals. A high initial price for early clients will be followed by a decrease in price after they have recovered their capital cost. HiTech intends to cater to more affluent customers who are willing to pay a premium for superior goods (Ezebilo, 2020).

Product	Price
Interpretation and modelling software for geological data	\$5000
House design and engineering softwaresystem S	\$3,700
House optimisation systemsoftware	\$4000
House schedule systemsoftware	\$3200
Design and restoration of a dumping site	\$4000

5.4 Selected area

The initials of the business will be derived from the London region of England. Customers will be drawn to these items because of the site's central position in the United Kingdom's commercial district. With a large parking lot and easy access to rivals, the location is ideal for clients who want to come in for a visit (Soloukiet *al.*, 2020).

5.5 Channels of Distribution

According to Summerset *al.* (2020), it is HiTech Engineering Software's goal is to supply high-quality goods and reduce additional costs associated with providing the product via a middleman by adopting direct distribution for commercial reasons.

5.6 Predictions for Sales

Selling to large domestic open-pit coal, subterranean coal and metals, and quarrying houses that are attempting to reduce costs and enhance profits is the goal of HiTech Engineering Software's Sales (Hafeezet *al.*, 2019). HiTech Engineering Software's president and vice presidents of marketing and sales were able to discover clients using direct sales approaches.

The technology developed by HiTech Engineering Softwares has three distinct features that set it apart from the competition: it is electronic, destructive, and exact. As per Karjiet *al.* (2019) argue that equipment technicians may utilise real-time information to track and adapt their operations, and housing engineers can make organisational changes in a home via the usage of such gadgets.

Technical presentation, housing operation research, and project proposal are among the methods used to reach the sales objective.

Outlook					
	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue					
Interpretation and modelling software for geological data	\$178,000	\$200,920	\$240,230	\$300,842	\$342,830
House Design	\$504,900	\$606,800	\$725,400	\$865,926	\$1,100,070
Housing Optimisation	\$133,500	\$134,500	\$155,000	\$180,110	\$210,700
Scheduling for housing operations	\$300,450	\$354,450	\$410,200	\$480,960	\$560,530

Design and restoration of a dumping site	\$52,400	\$60,910	\$67,860	\$80,500	\$95,089
Total Revenue	\$1,169,250	\$1,357,580	\$1,598,690	\$1,908,338	\$2,309,219
The Direct Cost of Sales	Year 1	Year 2	Year 3	Year 4	Year 5
Interpretation and modelling software for geological data	\$34,154	\$40,092	\$49,000	\$55,140	\$66,600
House Design	\$110,490	\$130,500	\$155,700	\$180,665	\$210,000
Housing Optimisation	\$220,920	\$245,550	\$280,200	\$335,860	\$395,760
Mine Scheduling	\$59,250	\$67,750	\$78,875	\$90,165	\$105,750
Scheduling for housing operations	\$9,500	\$10,989	\$11,808	\$15,900	\$18,000
Total Direct Cost of Sales	\$434,314	\$494,881	\$575,583	\$677,730	\$796,110

6. Plan of Action

6.1 Production

The company's technical department will concentrate on developing products and services that make use of the newest technology in order to minimise manufacturing costs and enhance revenue. For its customers, the company's time-to-market cycle will be quick (Putri, Wibirama and Giyarsih, 2018). By focusing on computer hardware and accessories, the firm will be able to provide high-quality goods and services to its consumers. Customers may expect high-quality goods and

services from the firm, which will use strict quality control methods. As mentioned by Afthanorhan *et al.* (2019), when it comes to increasing the firm's customer base, the company will employ professional skills, technical presentations, and on-site demonstrations of technologies to improve the customer experience. Goods management costs will be reduced as a result of the company's decision to keep just a small amount of inventory on hand.

6.2 Location

London's industrial district is where the firm will be based. The firm will occupy two floors of a commercial facility. The firm will need an area of 20 square kilometres.

6.2.1 Access

Located in London's commercial district in the United Kingdom, the firm is easily accessible by both public transport services and vendors. The firm will be open Monday through Saturday from 10 a.m. to 6 p.m. in accordance with UK time. The rent will be \$40,000 and the insurance costs will be \$37,000, respectively. It will cost \$2,250 to run electricity and gas.

6.3 Legal framework

Customers of the firm will be given access to the company's goods via a licensing agreement. It will also sue others for trademark infringement and unauthorised use of its emblem and associated technologies. In addition, employees will be covered by the company's insurance policy in the event of an accident at work (Mensah and Mensa, 2018). Safety, security, and environmental requirements specific to the United Kingdom shall be adhered to by the business.

6.4 Personnel

Employees include those listed below. Nine staffers are on hand for the first few days, and additional ones will be hired as needed.

Worker's occupation: To ensure that our customers get the best possible service, we need highly qualified and experienced people who know how to deal with these engineering housing applications (Chandra *et al.*, 2019).

The company's current employees are also well-versed in engineering housing technology, and they can deal with a wide range of business challenges. They are valuable assets.

When new employees are hired, they get instruction on how to work in the company so they can do it without difficulty. As per Karjiet *al.* (2019) argue that the HR manager is in charge of ensuring that new hires get the necessary training. It is common for us to outsource work when we are overworked and believe the internal personnel will not be able to adequately manage the workload and meet deadlines.

Employees	Payment
CEO, President	\$60,000.00
Senior field officer	\$15,000.00
Vice President	\$41,000.00
Senior Researcher	\$15,000.00
Housing sales manager	\$15,000.00
Vice president, Sales and Marketing	\$37,000.00
Sales manager-geology	\$15,000.00
administrative officer	\$15,000.00
general manager	\$25,000.00
Total people	9
Total payroll	\$238,000.00

6.5 Inventory

Due to industry needs, HiTech Engineering Software, there will be completed items of housing software and other house design and engineering technology in the

stock. In the current year, the firm plans to spend \$50,000 on inventory (Soloukiet *al.*, 2020). In order to offer the goods on time, sufficient inventory will be kept on hand.

6.6 Suppliers

As the products of the business are software, there is no requirement of any raw materials for the product development. The required infrastructure for the product development are computer systems, software tools and internet facility. The computer systems will be provided by a local distributor of hardware products. The software tolls would be purchased online and the internet facility would be provided by the local broad band service providers.

6.7 Credit Policies

Customers will be able to purchase HiTech Engineering Software's products and services on credit. In order to be eligible for credit, customers had to meet the company's credit giving thresholds. A \$1 million credit limit with really no secured creditors is the most basic sort of financing (McCabe,Pojani and van Groenou, 2018). The credit manager must approve any increase in the credit limit. When the customer's capacity to repair is in question, they will want the services of a personal corporation or banker. There is no way for the consumer to extend their payment terms beyond the 30-day credit period that has been offered to them (Hafeezet *al.*, 2019). Checking a prospective individual's credit history and monthly payments is the first step in verifying their financial integrity.

6.8 Account receivable management

Total	Current	30 days	60 days	90 days	+ 90 days
Debt Collection	00	\$50,000	\$1,30,000	\$100,000	\$00

Phone calls: 30 days

Threats from an attorney: +90 days

Sending letter: 90 days

6.9 Account payable of management

Total	Current	30 days	60 days	90 days	+ 90 days
Expenses related to age	\$00	\$00	\$55,000	\$00	\$00

For quick payment, the supplier is hoping to provide a 5% discount. In order to gain a discount and maintain a good reputation with their suppliers, our firm attempts to collect our debts as quickly as feasible.

7. Organisation and Management

According to Summerset *al.* (2020), the President and Vice President of Sales and Marketing will be in charge of running and managing HiTech Engineering Software. When new projects begin to come in, the organisation will need to fill the remaining jobs with fresh employees.

7.1 Assistance from Experts and Consultants

1. The CEO, president, and managing partners
2. Vice President of Sales and Promotions
3. Vice President of Operations
4. Administrative officer
5. Manager of the Organisation

Those are all included in this category.

8. Personal Financial Statement

HiTech Engineering Software

FORECASTED REVENUE

	Units sold annually	Average price per unit	Annual revenue per product
Product 1	300	500.00	150,000.00
Product 2	400	600.00	240,000.00
Product 3	800	450.00	360,000.00
Product 4	0	-	-
TOTAL OF FORECASTED REVENUE			750,000.00

COST OF PRODUCTS SOLD

	Expected gross margin	Annual cost of products sold
Product 1	15%	22,500.00
Product 2	14%	33,600.00
Product 3	18%	64,800.00
Product 4	0%	-
TOATL COST OF GOODS SOLD		120,900.00

ANNUAL MAINTENANCE, REPAIR AND OVERHAUL

Factor (%) on capital equipment	14%
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ASSET DEPRECIATION

Number of Years	3
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TAX

Annual Tax Rate	19%
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INFLATION

Annual Inflation Rate	3%
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PRODUCT PRICE INCREASE

Annual Price Increase	3%
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9. Start-up Expenses and Capitalization

Operating expenses	
Sales and marketing	10,000.00
Depreciation	5,000.00
Insurance	4,000.00
Property taxes	1,500.00
Maintenance, repair, and overhaul	300.00
Utilities	4,000.00
Administrative fees	250.00
Interest expense on long-term debt	30.00
Other	1,5000.00
Total	40,080

10. Financial Plan

10.1 12-Month Profit and Loss Projection

PROFIT AND LOSS PROJECTION

HiTech Engineering Software

PROFIT AND LOSS ASSUMPTION

	Year 1
Annual cumulative price (revenue) increase	0.00%
Annual cumulative inflation (expense) increase	0.00%

INCOME

	Year 1
Revenue	
Product 1	150,000.00
Product 2	240,000.00
Product 3	360,000.00

Product 4	-
Total revenue	750,000.00

Cost of Sales	
Product 1	22,500.00
Product 2	33,600.00
Product 3	5,340.00
Product 4	-
Cost of goods sold	120,900.00

Gross Profit	629,100.00
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Non-Operation Income	
Rental	4,000.00
Interest income	10,000.00
Loss (gain) on sale of assets	1,000.00
Other income (specify)	1,500.00
Toatal Non-Operation Income	16,500.00

TOTAL INCOME	645,600.00
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EXPENSES

Operating expenses	
Sales and marketing	10,000.00
Depreciation	5,000.00
Insurance	4,000.00
Payroll and Payroll Tax	200,000.00
Property taxes	1,500.00
Maintenance, repair, and overhaul	300.00
Utilities	4,000.00

Administrative fees	250.00
Interest expense on long-term debt	30.00
Other	1,500.00
Total operating expenses	226,580.00

Non-Recurring Expenses	
Unexpected Expenses	8,000.00
Other expenses	3,000.00
Total Non-Recurring Expenses	11,000.00

TOTAL EXPENSES	237,580.00
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TAXES	
Income Tax	77,523.80
Other Tax (specify)	-
TOTAL TAXES	77,523.80

NET PROFIT	330,496.20
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10.3 Projected Cash Flow

CASH FLOW PROJECTION

HiTech Engineering Software

Operating activities	Year 1	Year 2	Year 3	Total
Net income	330,496.20	314,476.83	350,666.32	995,639.35
Depreciation	5,000.00	4,500.00	4,000.00	13,500.00
Accounts receivable	5,000.00	1,850.00	1,750.00	8,600.00
Inventories	10,000.00	27,500.00	2,000.00	39,500.00
Accounts payable	1,000.00	10,200.00	8,750.00	19,950.00
Amortization	-	-	-	-
Other liabilities	-	124,200.00	2,750.00	126,950.00
Other operating cash flow items	-	-	-	-
Total operating activities	351,496.20	482,726.83	369,916.32	1,204,139.35

Investing activities	Year 1	Year 2	Year 3	Total
Capital expenditures	450.00	560.00	2,560.00	3,570.00
Acquisition of business	-	1,500.00	1,700.00	3,200.00
Sale of fixed assets	1,000.00	-	2,000.00	3,000.00

Financing activities	Year 1	Year 2	Year 3	Total
Long-term debt/financing	41,500.00	25,700.00	39,765.00	106,965.00

Preferred stock	-	-	-	-
Total cash dividends paid	-	-	-	-
Common stock	-	-	-	-
Other financing cash flow items	-	-	-	-
Total financing activities	41,500.00	25,700.00	39,765.00	106,965.00
Cumulative cash flow	392,996.2 0	508,426.83	409,681.32	1,311,104.3 5
Beginning cash balance	100,000.0 0	492,996.20	1,001,423.0 3	1,594,419.2 3
Ending cash balance	492,996.2 0	1,001,423.0 3	1,411,104.3 5	2,905,523.5 8

10.4 Opening Day Balance Sheet

BALANCE SHEET PROJECTION

HiTech Engineering Software

ASSETS

Current Assets	Initial balance	Year 1	Year 2	Year 3
Cash Balance	100,000.0 0	592,996.2 0	13,500.00	67,450.00
Accounts receivable	5,000.00	1,850.00	1,750.00	1,250.00
Total inventory	10,000.00	27,500.00	2,000.00	7,750.00
Prepaid expenses	20,000.00	11,700.00	12,500.00	11,750.00
Deferred income tax	-	1,700.00	1,250.00	1,700.00

Other current assets	15,000.00	1,770.00	1,250.00	1,540.00
Total current assets	150,000.00	637,516.20	32,250.00	91,440.00

Property and Equipment	Initial balance	Year 1	Year 2	Year 3
Buildings	50,000.00	65,000.00	67,000.00	100,000.00
Land	30,000.00	75,000.00	94,000.00	35,000.00
Capital improvements	-	-	-	-
Machinery and equipment	1,800.00	17,000.00	8,400.00	12,500.00
Less Accumulated depreciation expense		5,000.00	11,500.00	5,507.00
Total Property and Equipment	81,800.00	152,000.00	157,900.00	141,993.00

Other Assets	Initial balance	Year 1	Year 2	Year 3
Goodwill	-	20,000.00	15,600.00	20,000.00
Deferred income tax	2,500.00	2,000.00	2,350.00	3,530.00
Long-term investments	15,200.00	10,200.00	10,200.00	10,000.00
Deposits	2,310.00	15,260.00	1,058.00	25,000.00
Other long-term assets	1,870.00	24,962.00	3,000.00 \$0	21,000.00
Total Other Assets	21,880.00	72,422.00	32,208.00	79,530.00

TOTAL ASSETS	253,680.00	861,938.20	222,358.00	312,963.00
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LIABILITIES

Current Liabilities	Initial balance	Year 1	Year 2	Year 3
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Accounts payable	1,000.00	10,200.00	8,750.00	9,350.00
Accrued expenses	2,500.00	2,300.00	1,200.00	1,700.00
Notes payable/short-term debt	25,000.00	23,500.00	12,000.00	24,500.00
Capital leases	-	1,500.00	1,700.00	1,250.00
Other current liabilities	450.00	560.00	2,560.00	2,350.00
Total Current Liabilities	28,950.00	38,060.00	26,210.00	39,150.00

Debt	Initial balance	Year 1	Year 2	Year 3
Long-term debt/loan	41,500.00	25,700.00	39,765.00	40,360.00
Other long-term debt	175,000.00	200,000.00	150,000.00	175,000.00
	0	0	0	
Total Debt	245,450.00	263,760.00	215,975.00	254,510.00
	0	0	0	

Other Liabilities	Initial balance	Year 1	Year 2	Year 3
insurance contract liabilities	-	2,300.00	2,750.00	1,750.00
Other liabilities (miscellaneous)	-	121,900.00	-	2,140.00
		0		
Total Other Liabilities	-	124,200.00	2,750.00	3,890.00
		0		

TOTAL LIABILITIES	70,450.00	187,960.00	68,725.00	83,400.00
		0		

EQUITY				
	Initial balance	Year 1	Year 2	Year 3

Owner's equity (common)	50,000.00	55,000.00	55,000.00	55,000.00
Paid-in capital	3,380.00	3,380.00	3,380.00	3,380.00
Preferred equity	-	-	-	-
Retained earnings	-	330,496.20	644,973.03	995,639.35
TOTAL EQUITY	53,380.00	388,876.20	703,353.03	1,054,019.35
TOTAL LIABILITIES AND EQUITY	123,830.00	576,836.20	772,078.03	1,137,419.35

10.5 Break-Even Analysis

Break-Even Analysis

HiTech Engineering Software

[Your
Product]

[Date]

For the Period: March, 2022 - Feb, 2023

Selling Price £

(P): 516.00

Break-Even

Units (X): 526 units

£

Break-Even 270,950.8

Sales (S): 2

Fixed Costs

Sales and marketing	10,000.00
Depreciation	5,000.00
Insurance	4,000.00
Payroll and Payroll Tax	200,000.00
Property taxes	1,500.00
Maintenance,	

repair, and overhaul	300.00
Utilities	4,000.00
Administrative fees	250.00
Interest expense on long-term debt	30.00
Other	1,500.00
Total Fixed Costs (TFC)	£ 226,580.00

Variable Costs

Variables Costs based on Dollar Amount per Unit

Cost of Goods Sold	£ 10.00	per unit
Direct Labor	£ 5.00	per unit
Overhead	£ 2.00	per unit
Other (specify)	£ 3.00	per unit
Sum:	£ 20.00	

Variables Costs based on Percentage

Commissions	7.50%	per unit
Other (specify)	5.00%	per unit
Sum:	12.50%	

Total Variable Cost per Unit (V)

	£ 84.50
Contribution Margin per unit (CM) = P - V	\$ 431.50
Contribution Margin Ratio (CMR) = 1 - V / P = CM / P	83.6%

Break-Even Point

Break-Even Units (X)	$X = \text{TFC} / (P - V)$	526 units
Break-Even Sales (S)	$S = X * P = \text{TFC} / \text{CMR}$	£ 270,950.82

Targeted Net Income

Targeted Net Income Before Taxes (NIBT)	£ -
Units required to reach targeted NIBT, $X = (\text{TFC} + \text{NIBT}) / (P - V)$	526 units
Sales required to reach targeted NIBT, $S = (\text{TFC} + \text{NIBT}) / \text{CMR}$	£ 270,950.82
Rate of return on sales before taxes = NIBT / S	0.0%

Tax Rate (T)

Net Income After Taxes (NIAT) = (1-T)*NIBT

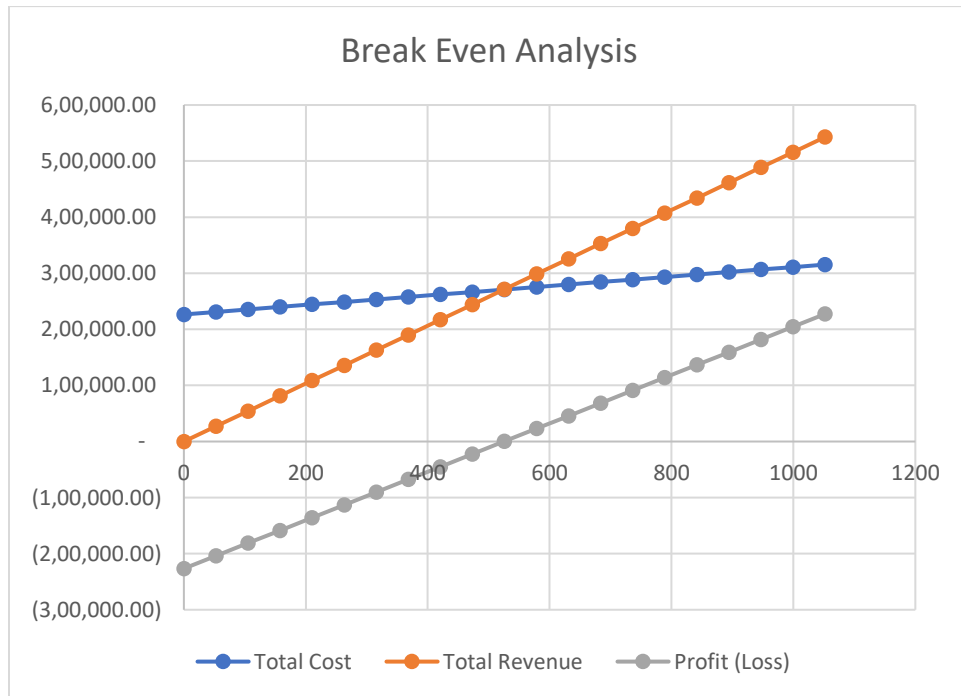
Rate of return on sales after taxes = NIAT / S

25%

£

-

0.0%



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