

## **GE401: Innovative Product Design & Development I**

# **Easy Life Limited Corporation**

# Easy Life Panel Final Report

**Team 12** 

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#### 1. EXECUTIVE SUMMARY

Easy Life is a start-up technology development company and the company is currently run in Ankara. The company has six partners who have engineering background and managerial experiences. Therefore, the company states its objectives on the purpose of innovating customized solutions for specific target customer segments. In this sense, company's main differentiation is its customer-centric product development philosophy.

Easy Life Co. targets people who do not have access of services because of their visual, speaking, hearing or physical disabilities. Customers' need is to have an alternative way of communication in order to reach emergency centers or service suppliers. Therefore, the company offers Easy Life Panel, which is a home type of ordering platform and specifically designed to get orders from disabled people via a user interface in order to deliver those orders to suppliers. The company's main objective for the product specifications is easy usage. For this reason, user interface and external hardware components are designed by considering the target customers' disabilities.

Total potential demand is projected to be 649.661 units for Ankara. For the first three years, sales are projected to be over a cumulative of 26.000 units, which means the 5.500 units of break even is realized during the third year with a continuous profit generation afterwards. The company compensates its start-up costs and operational expenses with a \$150.000 bank loan until the break even. The loan does not disturb the liquidity in long term because profit margin is considered to be increase by the decrease in unit cost during the 5 years of loan payment. Therefore, the company is not a risky investment, which is proven with a return on investment rate of 7.38% in the first year.

Easy Life Co. reachs the target customer segment by promoting over associations for disabled people, which is a great opportunity for this segment to maintain the Easy Life panel for its exclusive desire. In the future, with the help of the promotional events and our strategic partners Easy Life Co. plans to reach 8.500.000 people who are the rest of the target customer segment live in other cities of Turkey and 12.29% of total population in Turkey. Growing demand encourages Easy Life Co. to reinvest in innovation and product improvement in order to increase disabled people's access of services and create sustainable value for its stakeholders with the company purpose of going international over the next ten years.



## 2. SHORT DESCRIPTION OF THE PROJECT

Easy Life Limited Corporation has been established by six undergrad entrepreneurs at Bilkent University in September 2009. Headquarters is located in Ankara. Company operates in technology sector and concentrates on innovative product design and development. Easy Life Co. provides solutions in order to create an integrated communication channel between customers and suppliers. Therefore, customers perceive Easy Life Corporation as a superior value creator.

Easy Life Panel provides a platform for disabled and elderly people to get their basic customer needs easily and helps them to reach some crucial contacts such as hospital, ambulance, fire-fighter, taxi. By this panel, people will be able to order frequently used goods from the dealers without any computer knowledge and internet connection. These people can choose what they need through the user friendly software on Easy Life Panel and the panel will send their orders to the dealer via GPS/GSM module. Then, the dealer will deliver the orders to these people's addresses. For emergency cases and taxi, the panel sends a message to related service with the address of the user.

## 3. BRIEF DESCRIPTION OF THE DESIGN

In order to run a shopping software with a simple interface that lets the elderly and disabled people make shopping orders, the Easy Shop Panel basically includes a touch screen monitor, a Braille Alphabet numpad, a loudspeaker, a mini computer and a GPS/GSM module.

Each component is designed and used for the easy usage of elderly and disabled people. As a whole system, both elderly people who are not familiar with computer and have difficulties to see, and disabled people who cannot see or have physical disabilities, can give shopping orders easily through the Easy Life panel.



## 3.1. Components of Product Design

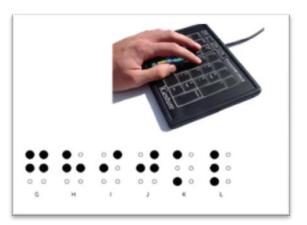


#### **Monitor**

A bright, thin, 15" size NEC Touch Screen LCD 52VM is to be mounted on the operating hardware part. A touch screen monitor whose resolution is 800x600 will make the usage of it much easier for elderly people. This display is going to be connected to the operating part, so in order to connect this display to the mini-PC component, the monitor should have a RGB or USB input port.

#### Numpad

Numpad is for people who cannot use touch screen monitor or people who are visually impaired. For visually disabled people's usage, numpad will be modified with embossing stickers, which are prepared in Braille Alphabet. Numpad will be connected through USB port to the Mini-PC of the product. All of the buttons will be



as easy as possible for usage of older and disabled people. Control buttons must be in a logical and reasonable placement with relatively large font sizes. To increase the convenience for visually impaired people, the numpad should be placed horizontally.

## Loudspeaker



Basic loudspeaker will help user to command the program. The main reason to use a loudspeaker is helping visually impaired people. Sound system will pronounce repeat all of the actions, which are made by user and the program. So, user can follow the process of shopping. This system also helps older people, who cannot use monitor and numpad, to follow the process.





## Mini PC

Mini-Computer part is the main part of the product. In this part, Windows XP operating system (which is the available program for touch screen monitor) and java program, which will be used for both main program and user interface of the product. Mini-computer will be controlled by

both numpad and touch screen (optionally). User interface will be optimized for touch screen drivers. Mini-computer will only include basic parts to be able to run Windows XP OS, Java, USB connection. In order to get a high performance from Easy Life Shop Panel, mini pc has some minimum requirement.

## System options of mini pc:

Computer Case	Micro Tower
Processor	Intel Atom 1.6GHz
Chipset	945GCLF DDR2 VGA+LAN+SATA2
System Memory	1GB DDR2 800MHz
Graphic Card	Intel GMA950
Sound Card	Realtek ALC662 2 + 2 CH High-Definition Audio CODEC
Network	10/100Mb Ethernet
Memory	30GB 2.5 disk 7200rpm SATAII 8 MB Cache
USB Port	4 x USB 2.0
PCI Slot	1 x PCI



#### GSM GPRS Module + External SIM Card

This module gets the order information from program at mini-pc and forwards orders to the dealers by SMS and/or Fax. Java runtime program generates a text file, which includes order list and location information of the user. By using GSM part of the module text file will be sent to dealer by its fax sending function. The size of this module is small

enough to be mounted inside the chosen mini PC.



## How does the system work?

- Firstly, when the system is turned on, the mini PC starts running the preinstalled software. This software includes the shopping options such as, water, food, drinks, pharmacy and personal care and the available product information for these titles.
- The user observes the options and sub-options on the LCD screen and navigate in the software by touching the screen or using the numpad. Optionally, in every command and navigation, the voice control system repeats all the titles and helps the user.
- While the user chooses some products, the software adds them to a cart. When the user wants to check out, the software prepares a fax or SMS text note including all the orders in the cart. Since the system has already been registered the user data such as address, name and phone at the start up and installation of the panel, it directly adds user information to the fax or SMS text note.
- Finally, the software sends this message to the GPS/GSM module via its serial port. GPS/GSM module prepares this text note to be sent over local phone line or to be sent to base station via GSM line. Once the message reaches to the base station or phone line, it is transmitted to the dealer's receiver and recorded. Then, the dealer prepares the cart and delivers it to the user's place.

## **Graphical User Interface**

User interface will include large icons designed for flawed sighted users, also there will be sound feedback for all the operations for users with hearing problem. For easyness a numbed will provide input, this numbed will have Braille Alphabet inscribings on it for again flawed sighted users. Graphical User Interface consists of two main part; emergency and convenience store. User will be able to use both parts easily by using icons only. Every icon will have corresponding visual cue on it like a picture of water contanier. After choosing an icon, user will be able to choose amount from another interface with same principle.





## **Software Structure**

- Software will be designed and implemented on Java technology.
- It is going to run on JRE (Java runtime environment).
- It will be compatible with every operationg system but our product will use Linux.
- Software will communicate with the gsm module to convey the input gathered from user to the server or emergency centers.



## 4. SUMMARY OF BUSINESS PLAN

#### **Product Idea**

Easy Life Panel will enable old and disabled people to give orders from their homes. Panel will use a touch screen, mini pc and GSM connection to reach server. Customers will give their orders using Easy Life's easy-to-use software package, which is specifically designed for old and disabled people.

## **Management Team**

Our team combines technical and managerial expertise. Team consist of two 4<sup>th</sup> year students from electric and electronic engineering department who are responsible from hardware, a 4<sup>th</sup> year student from computer science department who is responsible from developing our software, two 4<sup>th</sup> year students from industrial engineering who are responsible from quality and finance and a 4<sup>th</sup> year student form management department who is responsible from marketing & sales.

## **Marketing**

We identified our market as people who are older than 70 and disabled people who are older than 16. Our target group consists of 11.3 million people in Turkey and 0.65 million in Ankara.

Our aim is to work with NGOs and relevant government organizations to develop relationships with our target community. Strong relations will provide us better insights, promotion and even sales opportunities.

We are planning to focus on Ankara market for the first 2-3 years, and then expand to other cities like Istanbul, Izmir, Bursa. Going global is also a long term aim of our company.

## **Business System and Operations**

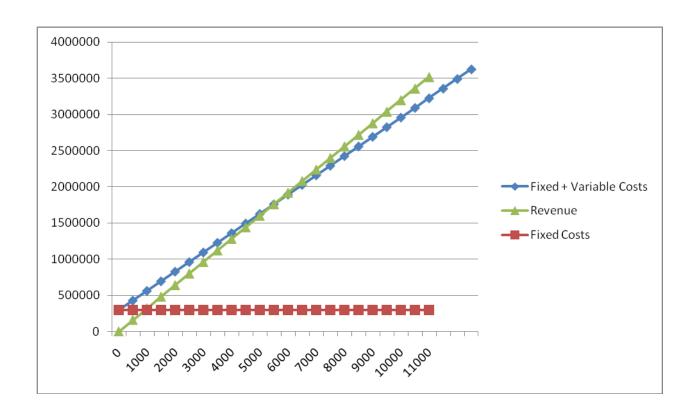
Our system has three components; customers ordering their needs, suppliers like Migros and Real taking these orders and delivering them and Easy Life providing panels and maintaining the system. Panels will connect to our system via GSM connection and we will transfer them to our suppliers.

We operate in panel production and maintaining the system stages of the value chain. Hardware components will be supplied from China and assembled in Ankara, Turkey. Our staff will take care of home installation. We maintain the system all the time and do troubleshooting when necessary.



## Realization

According to our sales forecast, we start selling our product in second year, we need to sell 5580 products to reach break-even point with estimated variable cost of 280 TL and priced at 320 TL. We start to have positive net income in 2<sup>nd</sup> year and reach break-even point in the 3<sup>rd</sup> year. Break even graph is given below.



## **Financing**

For the early stage phase, we prefer equity and grants if possible. Once we have the prototype and have established strong relationships with suppliers and NGOs, we will seek VC funding to finance our growth. Amount of debt required for the establishment stage is \$150.000.



## 5. SUMMARY OF DEVELOPMENT PLAN

We have created a project development plan in order to define and establish the management strategy for achieving the goals of the project. The project development plan is used to: Guide project execution, document project planning assumptions, facilitate communication among stakeholders, define key management reviews as to content, extent, and timing and provide a baseline for progress measurement and project control. We have used Microsoft MS project software to be able to structure the plan easily. What we have done is listed below:

- Defined working times
- Listed the tasks in the project
- Organized tasks into phases
- Scheduled tasks
- Set deadlines and constrain tasks
- Define working times for resources
- Assign people and equipment to tasks

After the creation of the project is completed we have reported some crucial issues for our project which are: critical tasks, risks, resources and time allocation, project costs. The development plan will be updated in time as we step further. Besides, as new information is available to use the development plan is going to be updated accordingly.

## 6. DEVELOPMENTAL STAGE OF THE PROJECT

Task status of the Project	
Tasks not started yet:	7
Tasks in progress:	8
Tasks completed:	49
Total Tasks	64
% Completed	76%
% Remaining	24%



Below you can see the organization of tasks, which are completed and the parts which has not started yet. Completed tasks are checked and remaning tasks are not.

#### ✓ Idea Generation

## ✓ Literature Survey

- ✓ Research on possible technologies
- ✓ Discussion of the project details with course advisors
- ✓ Determining the feasibility of the project
- ✓ Competition Analysis
- ✓ Literature Survey Reporting

#### ✓ Market Research

- ✓ Research on Demand and Customer Needs
- ✓ Research target customer statistics
- ✓ Survey Creation
- ✓ Meeting with potential customers, learning expectations
- ✓ Conducting the survey
- ✓ Research on system technology
- ✓ Research on GSM GPS technologies
- ✓ Research on KIOSK system working principles
- ✓ Research on universal communication design

## ✓ Product Definition

- ✓ Specifying product functions
- ✓ Preliminary Technical Design of Hardware
- ✓ Listing necessary devices with technical regirements
- ✓ Preliminary Design of the Software Logic
- ✓ Preliminary Design of the Software Interface
- ✓ Quality assurance analysis
- ✓ Product Definition and QFD Reporting

## ✓ Product and Subassembly Specifications

- ✓ Research of hardware components prices and suppliers
- ✓ Research on integrating external comp. to the main system
- ✓ Preliminary Design of the main system
- ✓ Product and Subassembly Specifications Report

## √ Introducing operational plan

- ✓ Development plan
- ✓ Defining the exit strategy

## ✓ Business Planning

- ✓ Providing mission goals and objective statement
- ✓ Constructing background information
- ✓ Describing organizational structure and management
- ✓ Introducing product and service line
- ✓ Writing the executive summary



- ✓ Marketing Plan
- ✓ Market analysis
- ✓ Competitive analysis
- ✓ Determining marketing strategy
- ✓ Financial statements and projections
- ✓ Expenditure Plan
- ✓ Break-even analysis
- ✓ Income statement
- ✓ Balance sheet
- ✓ Cash flow statement
- ✓ Website Design

## **Prototype Design**

## **Hardware Design**

- ✓ Modifying the hardware according to customer req.
- ✓ Ordering the proper external components

Pretesting on potential customers

Adaptation of hardware according to test results

## **Software Design**

- ✓ Algorithm design
- ✓ User interface design

Pretesting on potential customers

Adaptation of software according to test results

## **Corrections and Concept Development**

Software and Hardware Integration

Quality Analysis and testing



## 7. PROFESSIONAL AND ETHICAL ISSUES

## 7.1. Intellectual Property Policy

World's Intellectual Property Organisation defines Intellectual property (IP) as the creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce. Intellectual property is divided into two categories: Industrial property, which includes inventions (patents), trademarks, industrial designs, and geographic indications of source; and Copyright, which includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs.

Easy Life panel falls into the first category which includes the protection of the software and the hardware that we have created. Therefore, we are going to apply to Turkish Patent Institute to get the patent of both hardware and software.

## 7.2. Non Disclosure Agreement

Non-Disclosure Agreement is used when someone with an unpatented idea shows it to another party, and wants that party to maintain as confidential any information. Since we do not have the patent of our designs yet we need to use this agreement for the interviews with the potential investers. We created a sample to be used in future interviews. The sample is given below.

#### Non Disclosure Agreement with Easy Life Co.

This agreement is made as of the 23rd day of December, 2009, by and between: Easy Life Co. located in Ankara, Turkey and INVESTOR located in Istanbul, Turkey.

This Agreement shall govern the conditions of disclosure by Easy Life Co. to **INVESTOR**. of certain "Confidential Information" including but not limited to prototypes, drawings, data, trade secrets and intellectual property relating to the "Patent Pending" invention named "**Easy Life Panel**" invented by Easy Life Co.

With regard to the Confidential Information, **INVESTOR** hereby agrees:

- **1.** Not to use the information therein except for evaluating its interest in entering a business relationship with Easy Life Co. based on the invention.
- **2.** To safeguard the information against disclosure to others with the same degree of care as exercised with its own information of a similar nature.
- **3.** Not to disclose the information to others, without the express written permission of Easy Life Co. , except that:
- a. which **INVESTOR**. can demonstrate by written records was previously known;

INVESTOR

Easy Life Co. and SIGNATURE



- b. which are now, or become in the future, public knowledge other than through acts or omissions of **INVESTOR**;
- c. which are lawfully obtained by INVESTOR from sources independent of Easy Life Co.;
- **4.** That **INVESTOR** shall not directly or indirectly acquire any interest in, or design, create, manufacture, sell or otherwise deal with any item or product, containing, based upon or derived from the information, except as may be expressly agreed to in writing by Easy Life Co.
- **5.** That the secrecy obligations of **INVESTOR** with respect to the information shall continue for a period ending 3 years from the date hereof.

Easy Life Co. will be entitled to obtain an injunction to prevent threatened or continued violation of this Agreement, but failure to enforce this Agreement will not be deemed a waiver of this Agreement.

IN WITNESS WHEREOF the Parties have hereunto executed this Agreement as of the day and year first above written.

Зу:	Date:
	Dutc.
Title:	_

## 7.3. Professional Development of Employees and Apprentices

We plan to sign an agreement seeking to improve the professional development of the group's European employees. The European framework agreement is expected to strengthen the employability of employees within the Easy Life Co. through the implementation of an annual anticipation process linked to future employment prospects. Employee representatives are expected to be closely involved in the anticipation process.

# 7.4. Aim and content of agreement

The European framework agreement aims to reinforce the employability of employees within the Thales group of companies through the implementation of an annual process of anticipation linked to future employment prospects. Thus, the



agreement seeks to improve the matching of labour market needs through a better anticipation of skills needs and labour market shortages.

In particular, the agreement provides for deploying an annual plan of professional development involving all employees regardless of the level of responsibility in the job, age and occupational group. According to the agreement, professional development includes orientation, learning on the job, networking, mobility, coaching, mentoring and training. Management and trade unions agree that a European approach to professional development should benefit from already existing good practices within the group. For this reason, the agreement includes a collection and analysis of a number of advanced experiences in the various countries. These experiences relate to the following aspects:

- job and career path information,
- professional development discussions,
- training that is consistent with business needs and career paths,
- promotion of diversity,
- equal opportunities.

The agreement also states that an ongoing social dialogue with the active participation of employee representatives and trade unions at European and national levels will be key to achieving the objectives laid down in the European framework agreement.

#### 8. PROBLEMS ENCOUNTERED AND SOLUTIONS PROPOSED

During our studies, we firstly experienced a struggle about defining our target group and how to reach them. We defined our target group as old and disabled people but we were far away from professional definitions and coverage of these groups. We did not also know the exact needs and experience of these people. Therefore, we consulted with the municipalities and many non-governmental organizations that work on projects for physically handicapped people. By their help, we learnt which people are included in "disabled" group. We could reach our target group and apply surveys that we have prepared to those people to understand them better. In addition, we have gained insight about the needs of our



target group. These institutions advised us to add various functions (eg. emergency button) which have made our product more effective and reliable.

Secondly, we had another struggle about the software interface. The key differentiator of our product is supposed to be "simplicity", but while designing a shopping interface, it's not easy to keep the system simple. There are no limits to the number of goods that we can sell via our product. In addition, there are many different brands for each good. If we put many goods from different brands, our system would become very heavy and easy to be lost. Therefore, in order to keep the simplicity, we decided that we are not going to sell each product that exists in a simple market. We agreed on having 7 main categories and to list some most fundamental goods under these categories. We also decided that there is going to be only one brand for each good. We have chosen the most preferred brands by the public for each good and put them in our interface. This situation will limit the customer preference but simplicity in use is more important for us. We believe transportation of goods from market to home is a more important them being able to choose a good from many different brands. Therefore, we hope that customers will prefer transportation help rather than brand variety. Nonetheless, we have selected the most preferred brands to be sold via our product.

Thirdly, GSM module's cost is another problem for us. Customers can send their orders to the dealer by the help of this module but this device has a cost for the data it transmitted. GSM module has a SIM card inside and simply works as a cell phone. The more orders the customers give, the higher the phone bill becomes. We, as a company, must get this bill from customers, but our another key differentiator is that there is no monthly costs like internet connection. If we ask customers to pay their GSM bills then this point would not make sense. Therefore, we decided that we will get a commission for each order from the dealer. We ask the dealer to pay us approximately 3-5 percent of the total order price, since we are directing traffic to them.

Finally, at the end of our software design, we realized that in case of product and price changes there is an essential need for an update system. We searched possible solutions for this problem and decided to set our products that they will check if there is any update in the server every three days. If there is any update,



GSM module will receive the update files via its GSM connection and install itself. We will implement these directions into the software architecture.

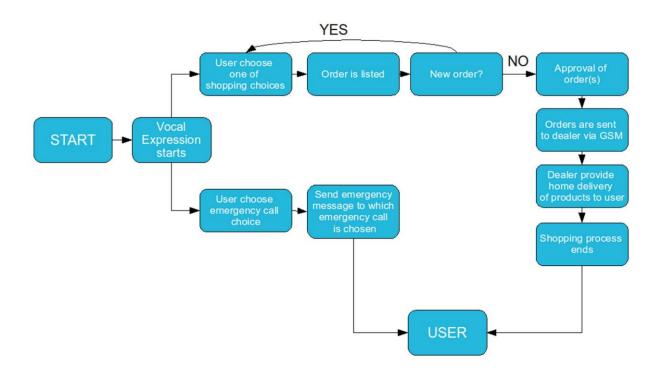
## 9. CONCLUSION

As a company we know that Easy Life Co. offers a unique system to the world that change disabled peoples' common handicap of dependency on other people by improving their access of products and services. During the product development process, we as the Easy Life Co. managers have proved the feasibility of the project by completing a detail industrial methodology study. In order to achieve our corporate objectives we see the deep market knowledge as our prior to assess Easy Life Co.'s product and corporate abilities in terms of design, production, finance, customer relations, sales and after sales services. Risks are eliminated with qualified management and strong decision analysis. Precautions are taken to create product differentiation, and marketing and sales strategies. Therefore, it is important that the product addresses a need of a mass market, it is comprehendable and profitable. We believe that our expertise and potential market will be the company initiative to expand in Turkey within three years and then become international in the next decade.

## 10. APPENDICES

Appendix 1 – Flow chart of the system





Appendix 2 - Physical Characteristics of The Main System

Technical Properties of Easy Shop Panel								
Screen Wide 15" diagonal								
Weight  6.5 kg (screen) + 3.4 kg (mini-pc) (loudspeaker+numpad) = 10.9 kg								
Screen Resolution 800x600 for best view								
Response Time 10~15 ms								
Total Dimension 40 cmx30 cmx45 cm (width – height – length)								

Appendix 3 - Power Supply of The Main System

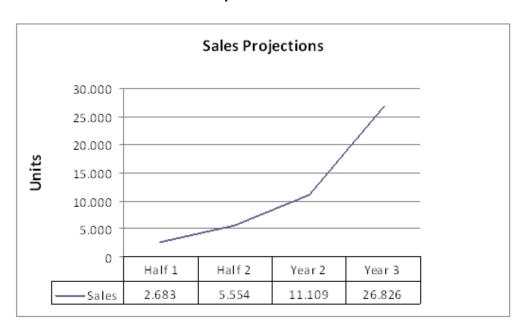
Technical Properties of Easy Shop Panel
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Power Source	19V 3.4A DC
Power Consumption	90 W maks
Output Power for Loudspeaker	60~70 db

# Appendix 4

## Sales Assumptions Based on Demand





# Easy Life Corporation Balance Sheet

	2009	2010	2010	2010	2010 - 2011	2011 - 2011	2011 - 2012
	1st Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4th Quarter	3 <sup>rd</sup> Half	4 <sup>th</sup> Half	3 <sup>rd</sup> Year
Current Assets							
Cash	2.293	4.532					
Accounts Receivable	0	1.000					
Fixed Assets							
Tools and Equipment	1.000	1.000					
Intellectual Property	46.707	98.200					
TOTAL ASSETS	50.000	100.200	0	0	0	0	0
Current Liabilities							
Accounts payable	0						
Short term notes	200	200	0	0	137.005	146.667	599.181
Long Term Liabilities							
Long term loans	25.000	50.000	75.000	100.000	125.000	150.000	175.000
Equity							
Owner's Equity	25.000	50.000	75.000	100.000	125.000	150.000	175.000
Retained Earnings							
TOTAL LIABILITIES	50.200	100.200	150.000	200.000	387.005	446.667	949.181

# Appendix 6

# Easy Life Corporation Income Statement

	2009	2010	2010	2010	2010 - 2011	2011	2011-2012
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	3rd Half	4th Half	3rd Year
Revenue	0	0	0	0	856.283	916.669	3.744.878
CGS	0	0	0	0	685.026	733.335	2.995.903
Gross Profit	0	0	0	0	171.257	183.334	748.976
OPEX	47.707	48.416	49.135	50.390	183.606	189.229	189.229
Depredation							
EBIT	-47.707	-48.416	-49.135	-50.390	-12.349	-5.896	559.746
Interest	0	639	1.896	7.556	6.389	15.250	5.069
EBT	-47.707	-49.054	-51.031	-57.946	-18.738	-21.146	554.677
Tax	0	0	0	0	0	0	110.935
Net Income	-47.707	-49.054	-51.031	-57.946	-18.738	-21.146	443.742



# Cash Flow Statement

	2009	2010	2010	2010	2010 - 2011	2011	2011 - 2012
	1st Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4th Quarter	3 <sup>rd</sup> Half	4 <sup>th</sup> Half	3 <sup>rd</sup> Year
Operations	-47.707	-49.054	-51.031	-57.946	-18.738	-21.146	443.742
Financial Activities	50.000	50.000	50.000	50.000	50.000	50.000	-150.000
Capital							
Expenditures	-	-1.000	-	-	-2.500	-2.500	5.000
Net Cash Flow	2.293	-54	-1.031	-7.946	28.762	26.354	298.742
Cumulative Cash							
Flow	2.293	2.239	1.208	-6.737	22.024	48.379	347.120

# Appendix 8

# Expenditure Plan

Item	Amount	Estimate Cost (TL/unit)	Total Expected Exp. (TL)	
Production and Design				
Mini PC	1	120	120	
Monitor	(1 borrowed from Tarık Reyhan)	100	100	
GMS Module&Cables	1	10	10	
SIM Card	1	10	10	
Speaker and numpad	1+1	20	20	
Packaging	TL/unit	0,5	0,5	
Installation	TL/unit	5,5	5,5	
Marketing and Advertisement				
Poster Design	1 (internal sourcing)	-	-	
Poster Printing	10	10	100	
Promotional CDs with Easy Life Logos	100	0,7	70	
Business Cards for Managers	6 X 25 Packages	5	30	
Hand-outs	500	0,06	30	
Letterhead paper	100	0,1	10	
Stickers				
Travel Costs and Meeting Expenses	1 in İstanbul & 10 in Ankara	150 for İstanbul Meetings and 10 for Ankara Meetings	250	
Web-Site Management and Design	(internal sourcing for design and university sources for hosting)	-	-	
Total Budgetary Expenditure			756	



# Loan Payment Schedule

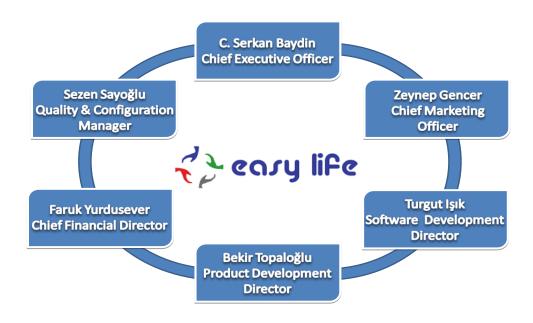
Date	Credit	Balance	Principal Payback	Interest
1-Oct-2009	25000	25000		
1-Jan-2010	25000	50000		638,89
1-Apr-2010	25000	75000		1250
1-Jul-2010	25000	100000		1895,8
30-Mar-2011	25000	125000		7555,6
30-Sep-2011	25000	150000		6388,9
30-Sep-2012		50000	100000	15250
30-Sep-2013		0	50000	5069,4

# Appendix 10

## Ratio Analysis

Years	2009	2010	2011	2012
Liquidity Ratios				
Current Ratio	0.72	0.82	0.85	0.81
Asset Management Ratios				
Fixed Assets Turnover Ratio	1.69	2.79	3.83	4.06
Total Assets Turnover Ratio	0.40	0.45	0.48	0.50
Debt Management Ratios				
Debt Ratio	93%	92%	91%	91%
Times Interest Earned Ratio	22.28	37.07	60.42	82.37
Profitability Ratios				
Profit Margin on Sales	18.40%	18.62%	18.72%	18.51%
Basic Earning Power	38.66%	43.09%	45.40%	46.40%
Return on Total Assets	7.38%	8.39%	8.93%	9.17%
Gross Profit Ratio	99.77%	99.81%	99.81%	99.81%
Return on Investment	7.38%	8.39%	8.93%	9.17%





Appendix 12 - MANAGERIAL RESPONSIBILITIES

Partners	Job Function	Education	Areas of Responsibility
C. Serkan	Executive Officer	Electrics and	Coordination of Directors
Baydin		Electronics	Product Development
		Engineering	Material Acquisiton
			Prototyping
			Web Design
			Documentation
			Technical Recruitment
Bekir	Product	Electrics and	Product Development
Topaloğlu	Development Director	Electronics	Strategic Business Partnering
		Engineering	Technical Recruitment
			Prototyping
Turgut	Software	Computer	Software Development
lşık	Development Director	Engineering	Configuration Control
			Test engineering
			Prototyping
			Technical Recruitment



Zeynep	Chief Marketing Officer	Business	Assistant Coordinator
Gençer		Administration	Business Planning Sales&Marketing Strategizing Customer Relations Man. Documentation
Faruk	Chief Financial Officer	Computer	Financial Reporting
Yurdusever		Engineering	Budgeting Risk Analysis Regulative conformance controls Internal Auditing Strategic Business Partnering
Sezen	Quality&Configuration	Computer	Quality Management
Sayoğlu	Manager	Engineering	Autocad drawing Patenting

## **Appendix 13 - BIOGRAPHIES OF TOP MANAGEMENT**

## C. Serkan Baydin - EE

Serkan Baydin was born in 4 June 1986 in İzmir. He graduated from Ankara Atatürk Lisesi and is a senior student in Bilkent University at Electrical and Electronics Engineering Department. He has worked at Gate Elektronik and Tübitak UEKAE İltaren. At both of these work experiences, he worked as R&D (Research and Development) engineer with project teams. He is a member of IEEE and IEEE Computer Society since 2005, and being a volunteer at IEEE. He had roles of vice-chair (2007-2008), chair (2008-2009) and mentor of Bilkent IEEE Student Branch. Additionally, he is an educator at IEEE, and gives national and international educations to IEEE students during international congresses and workshops. During these activities, he gained experiences of leadership, project management, human resources, and communication skills. He is advanced level of English, intermediate level of Japanese and basic level of German and Italian. He is the Chief Executive Officer of Easy Life Corporation.

## Bekir Topaloğlu - EE



Bekir Topaloglu was born in Izmir, on 30 July 1988. After graduating from Izmir science High School in 2005, he was accepted to Electrical and Electronics Engineering at Bilkent University with a full scholarship. He is currently a senior student in his department. He is a member of IEEE for 3 years and voluntarily participated in Bilkent IEEE Student Branch. As the Corporate Relations and Sponsorship Committee Coordinator at Bilkent IEEE Student Branch, he worked for establishing beneficial relationships with companies and raising money for the events that aims social and academic development of Bilkent students. He is also participating in Young Guru Academy(YGA) that is a nongovernmental organization, aiming to cultivate socially responsible future leaders. As the Ankara servant leader, he has been devoting 15 hours weekly to lead the social responsibility projects conducted by YGA. He attended two internship programs at Aselesan Military Electronics A.S in June 2008 and Turkcell Communication Services A.S in July 2009. He had also worked as Apple Bilkent Campus represant in 2008 to create brand awareness in universities. He knows advanced level of English and basic level of German. He is working as Product Development Director in Easy Life Corporation.

## Sezen Sayoğlu - IE

Sezen Sayoğlu was born in Eskişehir, Turkey in 9 November 1987. She graduated from Eskişehir Fatih Science High School in June 2005. She is currently a senior student at Bilkent University Industrial Engineering where she accepted with full scholarship. She actively involved in ESTIEM (European students of Industrial Egineering and Management) as designer and representative of Bilkent University IE department in five council meetings in different cities of Europe. In April 2008 she has been elected as the ESTIEM Magazine Project Leader by the council to lead an international team. During her leadership she organised international case competitions, workshops and parties. Her first internship was in the airplane engine producer Turkish Engine Industry Co.'s production planning and inventory control department in 2008. She has worked as an intern for Italian white appliance company Indesit in 2009 summer. She can speak English fluently and understands



basic Italian. Her hobbies are graphical design, phlisophy and traveling. She is working as Quality and Strategy development director in Easy Life Corporation.

#### Faruk Yurdusever - IE

Faruk Yurdusever was born in Samsun, on May 26<sup>th</sup> 1987. He graduated from Samsun Science Highschool in 2005 and currently is a senior student at Industrial Engineering Department in Bilkent University. He worked for Tepe Betopan A.Ş. as an intern for a month in R&D Department in 2008 and was an intern for 3 months in Garanti Bank's Project & Acquisition Finance Department in 2009. He served as Working Group Leader, Local Group Responsible and Project Leader of Summer Academy project in ESTIEM between 2006-2009. He was also Vice President & Board Member of Operational Research Club in 2007 and Advisory Board Member in 2008. His professional interests are corporate finance, M&A and investment management. He holds upper-intermediate degree in martial arts (namely Wing Tsun & Judo), intermediate level in Tango, Salsa and Viennese Waltz. He is fluent in English. He is working as the Chief Financial Officer in Easy Life Corporation.

#### Turgut Işık - CS

Turgut Işik was born in Ankara in May 4th 1988. He received his high school education at Gazi Anadolu Lisesi in Ankara. Now he is a senior student in Bilkent University at Computer Science Department. His work experiences are internship at Havelsan; software and systems company in military defense and IT sectors, internship at Microsoft Turkey division and independent software engineer. He also worked as a research assistant at iVis visualization group lead by Uğur Doğrusöz at Bilkent. His hobbies are travelling, sports and reading. He knows Turkish (native), English (fluent), Spanish (basic), Arabic (basic). He is the Software Development Manager of Easy Life Corporation.



Zeynep Gençer was born in Bursa, on Jan the 5<sup>th</sup>, 1987. She graduated from Bursa Anatolian High School in 2005 and currently is a senior student at Faculty of Business Administration in Bilkent University. She is studying double majors as Global Business Rules and Marketing&Innovation Management. She worked as a part time sales and marketing assistant in EES Ltd. Şti. in Bilkent Cyberpark for 6 months in 2008. She has been working in Grundfos Turkey-Ankara Region Sales Office as a part time sales assistant where she is experienced in international trade since August 2009. She is a part time assistant R&D project manager and giving consultancy to firms for TUBITAK R&D support programmes in Prolog Consultancy in Bilkent Cyberpark since Jan 2010. She is a member of ESN Bilkent since 2006 and has a membership in AEEGE-Ankara since Sep 2009. Her interests are traveling, experiential marketing, short films and acting. She is fluent in English and knows basic Italian. She is the Chief Marketing Officer of Easy Life Company.