



**UNIVERSITI TEKNOLOGI MARA  
PUNCAK ALAM**

**BLUE PRINT:  
AUTOMATIC STRAP CUTTER MACHINE**

**TECHNOLOGY ENTREPRENEURSHIP  
( ENT600)**

**PREPARED BY:**

**PROGRAM : HS245 ( BACHELOR OF OCCUPATIONAL THERAPY)  
GROUP: NHSOF6Y**

1.	Nur Fatini Zakaria	2015412946	0169123285
2.	Nurul Ashikin Binti Sulaiman	2015452206	0127365924
3.	Noor Athifah Binti Saidi	2015688208	0139272563
4.	Anis Hidayu Binti Abd Shukor	2015454242	0193807905
5.	Sharifah Nur Bahijah Binti Syed Abdullah	2015488042	01132396751

# Table of Contents

<b>CHAPTER 1.....</b>	<b>1</b>
<b>1.0 PRODUCT DESCRIPTION.....</b>	<b>1</b>
1.1 Introduction .....	1
1.2 Purpose of development .....	1
1.3 Product Concept .....	1
1.4 Application .....	1
1.4.1 Functions .....	2
1.5 Unique feature .....	2
1.5.1 Picture description .....	3
<b>CHAPTER 2.....</b>	<b>5</b>
<b>2.0 TECHNOLOGY DESCRIPTION.....</b>	<b>5</b>
2.1 Overview of product prototype.....	5
2.1 Strap Dispenser (A).....	6
2.2 Cutter Machine (B).....	6
<b>CHAPTER 3.....</b>	<b>8</b>
<b>3.0 MARKET RESEARCH AND ANALYSIS .....</b>	<b>8</b>
3.1 Target Market .....	8
3.2 Market Size and Market Share .....	8
3.3 Competition and Competitive Edges .....	8
3.4 Estimated cost per Unit .....	9
3.5 Selling Price.....	9
3.6 Marketing strategies .....	9
3.6.1 Product.....	9
3.6.2 Pricing.....	<b>Error! Bookmark not defined.</b>
3.6.3 Sales Tactic.....	<b>Error! Bookmark not defined.</b>
3.6.4 Service and Warranty .....	10

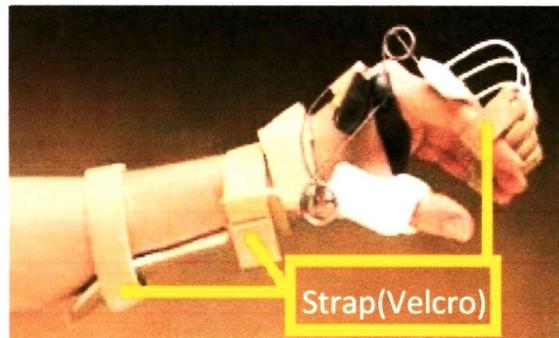
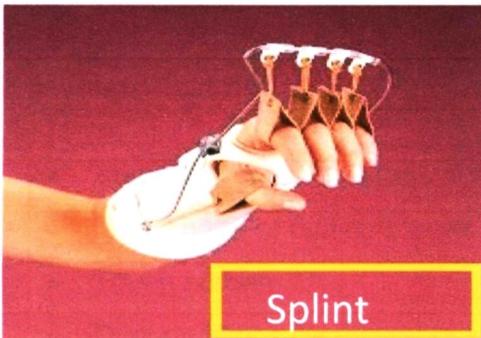
3.6.5 Advertising and Promotion.....	10
3.6.6 Distribution.....	11
<b>CHAPTER 4.....</b>	<b>12</b>
4.0 FINANCIAL PLAN .....	12
4.1 Start-up Cost.....	12
4.2 Working Capital .....	12
4.3 Cost of component per prototype .....	13
<b>CHAPTER 5.....</b>	<b>14</b>
5.0 MANAGEMENT TEAM.....	14
5.1 Team Members.....	14
5.2 Other Required expertise.....	16
<b>CHAPTER 6.....</b>	<b>17</b>
6.0 PROJECT MILESTONE.....	17
6.1 Flow chart Project Design Planning .....	17
6.2 Project schedule.....	19
<b>CHAPTER 7.....</b>	<b>20</b>
7.0 CONCLUSION .....	20

## CHAPTER 1

### 1.0 PRODUCT DESCRIPTION

#### 1.1 Introduction

Demand for occupational therapy is expected to rise significantly over the coming decade in response to the health needs of the aging baby-boom generation and a growing elderly population. One of the Occupational Therapist (OTs) services is the fabrication of splinting (a low-temperature plastic material, custom-made and is fitted to each individual which is fasten by the straps). After initial observation towards the conventional ways of OTs cutting the straps using the scissor, the team had chosen a product that we believe can make the process much easier.



#### 1.2 Purpose of development

- To reduce the time consuming for strap cutting process.
- To provide ergonomic wise to the user.
- To guaranteed accuracy of the straps length

#### 1.3 Product Concept

This Automatic Strap Cutter Machine is to simplify the job and it can reduce possibility of user having musculoskeletal pain due to usage of heavy duty scissors.

#### 1.4 Application

The most comprehensive line of work aid and labor saving device, specifically designed to rapidly and accurately cut for hook and loop fastener strips.



### 1.4.1 Functions

- Ideal for heavy production to cut Velcro®.
- Cut up to 4.33" (110mm) wide material or multiple rolls
- High-speed - can cut up to 140 pieces per minute at 2" (50mm) in length
- All electric microprocessor controlled
- Easy to use - set length, quantity and feed speed; then, press start
- Adjustable pressure on feed roller for thin or smooth materials
- Accuracy - by means of stepper motor
- Cutter safety guard included
- No tooling required to cut different materials
- Cutting blade is made of high-speed steel (HSS)

### 1.5 Unique features

- Automatic shut-off - stops automatically if material runs out during operation
- Multi-shape of cutting blades
- Touch screen
- Dual partitions for adhesive and non-adhesive material