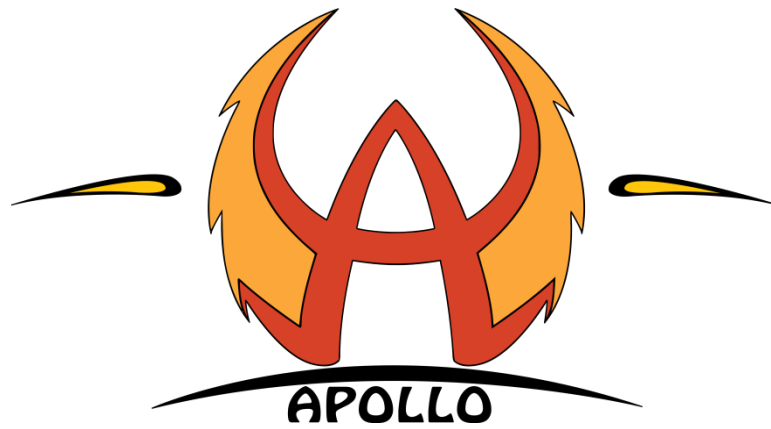


TEAM APOLLO

Enterprising







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ENTERPRISING

1. MINIATURE MODEL

For the enterprising part, we had to pretend we wanted to sell a miniature Umicar. Before the introduction, we have to prepare the way we want to introduce our product. First we need to find out what the market of sun powered toys is like. When we know the market, we have to set up our marketing program based on the 4P-principle (price, product, promotion and place).

1. MARKET RESEARCH

In the next chapter, we will discuss the major manufacturers of solar powered toys. These manufacturers will be the competitors for our own miniature Umicar.

After some research, we found out the market of this kind of toys is not developed in Belgium. In the first place, there are no Belgian manufacturers of solar powered toys. In the second place, there aren't many shops either who sells solar powered toys.

After some research, we find out there are two categories of this kind of toys. On one hand, you have the kits which you have to assemble yourself. On the other hand, there are the simple toys who are ready to use.

TAMIYA USA

This is a company who makes all kinds of radio-controlled vehicles and models. They produce self-assembly packets and just finished models. The solar powered vehicles of these company are reissues of Solar Challenge (for example: The Honda Dream). This is one of the strengths of these models, the models are reissues from cars who really existed and were cutting edge. A packet costs €19, these packet includes the solar panel and motor and you have to assemble it yourself.

Another packet is more 'professional', it is more expensive as the previous models (€35) and is not some reissue, it is just a no nonsense assembly car which has a simple design but seems durable.

The target group for these products is for teens between 14 and 18 years old.

www.tamiyausa.com



Solar Car Honda Dream



Solar Car Assembly Kit

OWIROBOT

OWIrobot is a company who makes educational robots. A part of these robots are solar powered, these are the mini-solar kits.

There 2 kits that contain parts where you can make different models from. There are also kits for one specific model, for example a train or a solar system. All these kits are self-assembly kits but these ones are a little easier and cheaper as those of Tamiya Usa. The target group is also younger than those of Tamiya USA, it is around 12, 14 years old. The price ranges between 7 and 14 Euros except from one amphibious vehicle which costs €36.

www.owirobot.com



6 -in-1 Educational Set



Solar Bullet Train

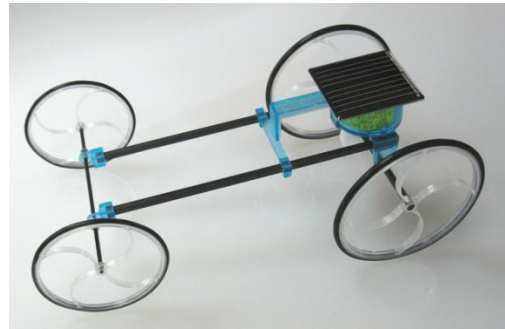
STRONG & YOUNG

This Taiwanese company claims to be the biggest solar toy production and to be the inventor of the solar toys. Their products are all small products which you do not have to assemble yourself. The company says to have the smallest, solar tank, solar robot, solar car and the first carbon fiber solar car. Instead of the educational purpose of the previous companies, these are just small gadgets for every age. Between 5 – 8 Euros.

www.solar-i.com



World's smallest car



World's First Carbon Fiber Solar Model Car

TOYSMITH

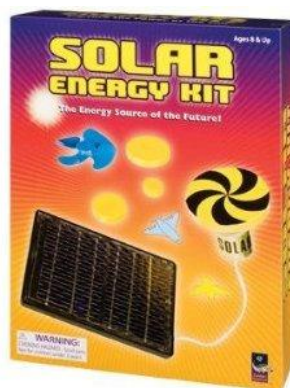
This is a company which makes all kinds of educational toys. They have 2 products which use solar energy. One is a small solar car for kids between 10 and 15 years old (although someone older has to help to assemble the car). It has a nice shape but you have to assemble it yourself. It costs €10.

The other product is just a solar panel and a small rotor which can make this part fly. This product is for younger children just to show the application of solar power. It cost €12.

www.toysmith.com



Solar Rover



Solar Energy Kit

EITECH

This is a German company which makes construction packets for children. Normally, all products are equipped with electrical motors (battery driven) but 3 articles are equipped with a solar panel. (2 aircrafts and 2 mills). These packets are for children from 8 years old and costs between 20 and 30 Euros.



Construction packet

2. 4P BUSINESS PLAN

PRODUCT

WHAT IS A SOLAR CAR?

The solar car is a kind car drove by solar energy. And over the rolls, we use the solar panel to absorb the solar energy.

WHAT IS THE BACKGROUND OF SOLAR CAR'S APPEAR?

Solar energy has unlimited, universality, development and utilization of the cleanliness and the gradual revealing of the economy and other advantages. The development and utilization of solar energy can solve the conventional energy shortages and environmental pollution.



Solar Car

The normal toy car general drove by battery. And the used batteries are pollution source. Make batteries need Coal, oil, natural gas. The natural resource will be exhausted if we go on to use it as now. According to the scientists expect that the world's proven petroleum reserves will be exhausted in 2020. Therefore, the car will appear to suffer the danger of "hunger", human beings will face the energy challenge.

WHY DO WE NEED THE SOLAR CAR? WHY WILL THE USE OF SOLAR CAR BE AN INEXORABLE TREND?

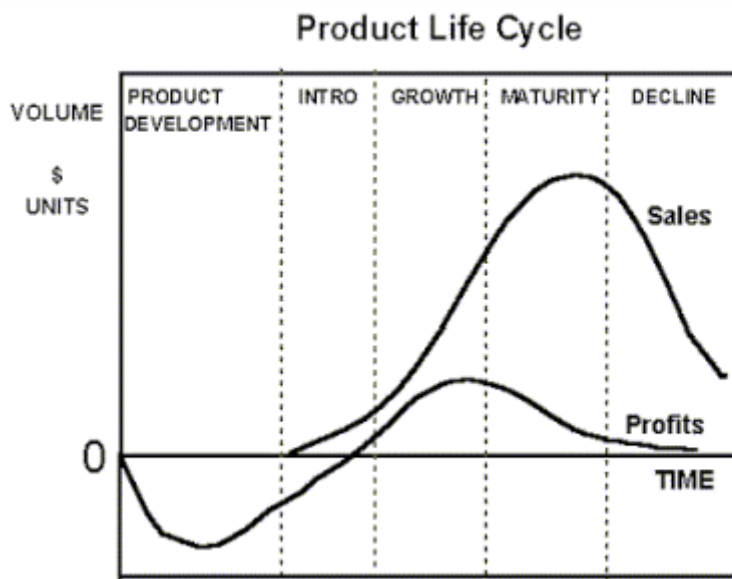
The solar car has a promising future, it will be an inexorable trend. The solar car will be able to effectively reduce the global environmental pollution and create a clean science, technology and living environment. In the future, there will be more and more solar cars appear in all around the world. With the rapid developing of global economy and science technology, solar car as an industry is not a myth. The normal car is a main air pollution source. The normal car emissions of sulfur dioxide and nitrogen oxides, which will cause



air pollution. The air pollution damages the people health. In the recent years, the environment pollution and over-exploitation energy caused more and more natural disasters. Furthermore, we meet the energy shortage from all around the world. Now scientists from various countries are committed to developing electric cars with less pollution. They hope the electric cars to replace the burning gasoline car. But since the major power is supplied by burning fossil fuels, the use of electric cars will increase the demand for electricity, which is indirectly increase the power plants release pollutants. For this reason, some environmentalists promote to develop the solar cars, which using solar cells to convert luminous energy into electrical energy. Since solar car don't need to burn fossil fuels, so it will not emit harmful substances. It is estimated that if replacing the burning car by solar car, each car's carbon dioxide emission can reduce 43-54%.

PROMOTION

During the day, solar panel convert light energy into electrical energy stored automatically, in the evening can also use low power (220V) charger.



Product development phase begins when our companies finds and develops the new product idea, the solar car. This involves search information and incorporating them into a new product. In this phase, the product undergo from imagining of the product to making a real product. During this period, the sale of the product is zero, while the company must increase the investment. The engineers need to design the solar car not only according to the scientific knowledge, but also the market needs. Those products that survive the test market are then introduced into a real marketplace and the introduction phase of the product begins.



New product is introduced into new market. In this phase, little consumer accept the product. So the sale is very slow. Since the high cost of the product introduction, initially the profit usually is low or negative. But, there are few competitors in this phase.

The introduction phase of the solar car includes the product launch with its requirements to getting it launch in such a way so that it will have maximum impact at the moment of sale.

After a period of time, product has a considerable reputation. Sales and profits rapid grow. However, due to market and profit's rapid growth, more competitors will be attracted.

At the right time, our company can take the price-cutting strategy to stimulate the consumers to purchase our solar car.

The market growth trend begins to slow down or saturation, the product has been accepted by the majority of potential buyers. After the peak, the profit decline gradually. At this phase, the market competition is fierce. The company in order to maintain the status of products required to put a lot of marketing costs.

Through the adjustment of the solar car to meet the different needs of customers, to attract the different needs of customers. For example, make some solar cars with different shapes. The solar car is a fashion toy for kids. So it must have fashion shape to suit for its function. So, in the market the solar toy car general has personality shape. Besides, remote controller can be added with the solar car. It is easier to control the solar car's direction and whether move or not.



Fashion Shape

During the recession, profits decline. Market competitors are less and less. Our company just can reduction the sales, in order to minimize promotion costs.



PRICE

INTERNAL AND EXTERNAL FACTORS THAT AFFECT PRICING STRATEGIES OR DECISIONS:

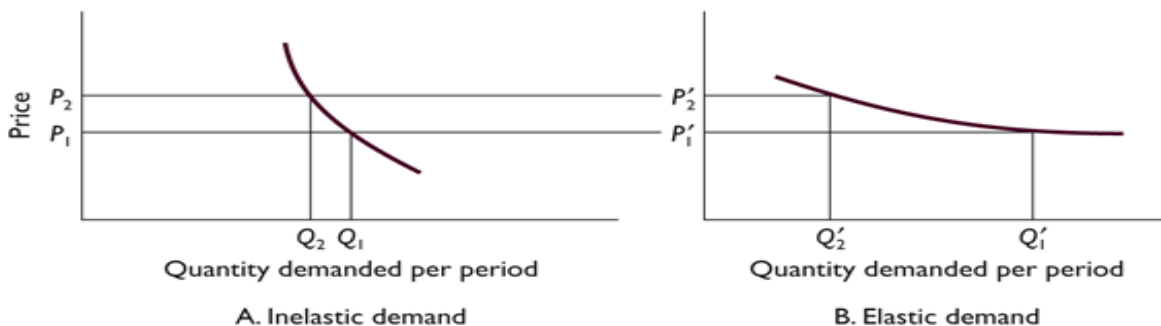
When we decide a price to sell our product, we should consider many factors which are including internal factors and external factors. Only in this way, our product can last a long time and we get more benefits.

Internal factors:

- Marketing objectives:
 - 1) Survival;
 - 2) Profit maximization;
 - 3) Market-share leadership;
 - 4) Product-quality leadership.
- Marketing mix strategy.
- Cost: Total costs = Fixed costs + Variable costs.
- Organizational considerations.

External factors:

- Types of markets:
 - 1) Pure competition;
 - 2) Monopolistic competition;
 - 3) Oligopolistic competition;
 - 4) Pure monopoly.
- The costs, the price and the perception:



- Competitors' prices and offers;
- Environmental:
 - 1) Economic;



- 2) Resellers;
- 3) Government;
- 4) Social concerns.

THE PRICING OF THE PRODUCT:

- The cost for one small solar car:

1. Fixed cost:

Item	Price per unit (€)	Amount	Price (€)
Wheels	0.5	4	2.00
Bearing	0.6	5	3.00
Chassis	2.00	1	2.00
Solar panel	2.50	1	2.50
Motor	2.50	1	2.50
Wires	0.05	8	0.40
Screws	0.10	8	0.80
Package	0.40	1	0.40
Switch	0.10	1	0.10
Axis	0.6	2	1.20
Gears	0.1	3	0.30
Total			15.2

2. Variable cost:

Item	Price (€)
Wages	4000 (per month)
Shipping cost	1000 (per month)
Mechanical maintenance costs	400 (per month)
Total	5400 (per month)

Suppose that we can sell 1000 small solar cars per month. We can get the cost of a small solar car is:

The cost (per unit) = $15.2 + 5400/1000 = 20.6$ €

So the price to sell our product should be higher than 20.6 €.

Compared with other product which we have written on the Marketing Research Report, the price of our product should be around 24-29 € per car.



Because there are still so many other factors to affect the decision of price, we can change the price according to the practical situation.

PLACE

INTRODUCTION:

Place means all the company activities that make the product or service available to target customers. In other words, place means the channels which we can use them to sell our product or service efficiently and conveniently.

In this part, we will provide some channels to reach our customers and sell our product and reasons why we choose those channels.

THE DIFFERENT CHANNELS TO SELL OUR PRODUCT:

1. Supermarket: There are millions of people who go to supermarkets and buy a lot of stuff for their daily life, so it is a good chance to advertise our products and make people buy our products.
2. Online shops: when the reputation of our products goes up, we can place our product in online shops, so everyone can buy our product without going out of their houses.
3. Salesman: they can go to every family's home and sell our product. Of course, if they sell many of our products, they will get more money than their basic salary.
4. Department stores: we can attract some people to be the resellers of our product and sell our product in a certain area in the department store.
5. Speciality store: we can also attract some people to be the resellers of our product and sell our product in a certain store. This kind of store can sell the components of the solar car and also the whole car. In this way, we can attract more people to buy our product.

ALTERNATIVE CHANNELS CAN BE USEFUL:

At the beginning, we can sell our product in supermarket and department store. When the reputation of our product goes up, we can open the online shop to make more customers reach our products and use the reputation of our products to attract some people to be the resellers of our products and sell our products in a certain store which is called speciality store.

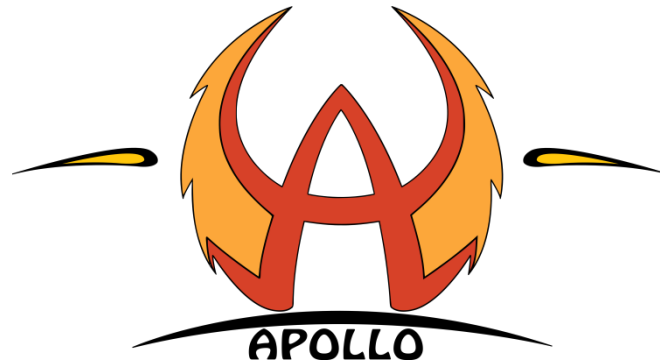
So the alternative channels:

- At the beginning:
 - 1) Supermarket;
 - 2) Department store;
- When the reputation of our product goes up:
 - 1) Department store;



- 2) Supermarket;
- 3) Online shop;
- 4) Speciality store.

3. ANALYSIS TEAM NAME & LOGO



This is our team name and our team logo. We think these are very good. The name is simple and reminds you at the God of the Sun by the ancient Romans. The logo associates the name and the power of the sun in one picture. Because our product is made for kids, the logo will take the attention of the kids. They want to have a our car because of the 'cool' logo. The name is an easy one and children can search for the source of the name. They will read about the God of the sun and will be thrilled and tell it to his/her friends in school, etc. We will not change them.

4. WEBPAGE

The url of our site is <http://www.wix.com/teamapollossv/site>



2. BOOKKEEPING

1. TABLE OF COMPONENTS

Item		Amount	Price per unit (€)	Price (€)
Conrad	Axis	2	2,29	4,58
	bearing	5	4,09	20,45
	Shipping costs	1	5,55	5,55
Bouwpunt	screws	1	1,157	1,16
	bolts	1	1,405	1,41
	washer	1	1,3636	1,36
	glue	1	3,843	3,84
	screws	1	1,7355	1,74
Fablab	plexiglass 4mm	1	6	6,00
	wood 9mm	1	4	4,00
	wood 4mm	1	1,5	1,50
			Total:	51,58



2. PROOFS OF PAYMENT

De heer
w Goverts
Langestraat 101
3220 SINT-PIETERS-RODE

Conrad Electronica
7570 AA Oudezand
Postbus 22
Tel.: +31 86 42 45 450
www.conrad.be

Uw bestelling van / nr. / kenmerk
54566249

Factuur
9544105709

Bij bestellingen en correspondentie aanpakken a.u.b.

Factuur over datum
28.03.2011

Factuur Pagina 1 / 1

28.03.2011

Art.nr.	Artikelomschrijving	BTW	Aantal	Stukprijs	Totaalprijs	EUR
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198794	Grooekogelager 623 Z2	B7	5	4,09	20,45	
	Verzendkosten					6,95
	BTW		21,0%			5,55
Totaal					31,98	EUR

Net Banking

Betaling: u heeft reeds vooruitbetaald.

Bank: KBC Bank
ING Bank

BIC: KREDEB33
BBRUBEBB

IBAN: BE16 7340 1466 9274

IBAN: BE43 3200 1419 5901

734 014662 74

320 0141939 01

600000

BBRUBEBB

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BE43 3200 1419 5901

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De heer
w Goverts
Langestraat 101
3220 SINT-PIETERS-RODE

Conrad Electronica
7570 AA Oudezand
Postbus 22
Tel.: +31 86 42 45 450
www.conrad.be

Uw bestelling van / nr. / kenmerk
54566249

Factuur
9544105709

Bij bestellingen en correspondentie aanpakken a.u.b.

Factuur over datum
28.03.2011

Factuur Pagina 1 / 1

28.03.2011

Art.nr.	Artikelomschrijving	Aantal	Stukprijs	Totaalprijs	EUR
237051	AS 3MM	2	1069708	60	237051 V1 L
198794	Grooekogelager 623 Z2	5	1069708	20	198794 V1 L
<p>Bescherming van uw zending:</p> <p>Ons opvulmateriaal bestaat uit materiaal van mazzelmeel of uit transparant, chemisch neutraal polyethyleen (buiten bereik van koudwater en vriespunt). Het is geschikt voor het vullen van gerecycleerd en mag niet het plastic ingezameld worden.</p> <p>Het materiaal uit mazzelmeel is composteerbaar en is 100% gemaakt van afbreekbare grondstoffen. Het mag daarom in de groene container of in uw compost.</p> <p>Beide soorten beschermen het milieu en uw zending tegen beschadiging tijdens het vervoer!</p>					

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ING Bank

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IBAN: BE43 3200 1419 5901

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BouwPunt
Als professioneel advies een punt is

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Fax: 016 24 65 39

BOUWMATERIALEN
CONTAINERDIENST
BRANDSTOFFEN
NATUURSTEEN



LEVERINGSBON 60173670

Leveringsadres:

Klant: 165001
KONTANTE VERKOOP LUBBEEK

BE

Bon aangemaakt door

1/ 1

Referentie	Vrachtwagen	Chauffeur	Datum	Levering
			DI 05/04/2011	

Aantal	Omschrijving	Fact.eenh.	Eenh.prijs	Totaal
1,00 Stk	ML-816004 ----- ZELFTAP. SCHROEF CYL KOP VERZ. 30ST 2,9 x19MM	1,0000 stk	1,1570 /stk	1,16
1,00 Stk	ML-816260 ----- KACHELBOUT +OER STAAL VERZINKT 22 ST4 x16MM	1,0000 stk	1,4050 /stk	1,41
1,00 Stk	ML-816702 ----- CARROSSERIE SLUITRING VERZ. 25 ST 5,2 x20MM	1,0000 stk	1,3636 /stk	1,36
1,00 Stk	NO-7629 ----- PAT.SEC.LIJM 10G KAART IND.	1,0000 stk	3,8430 /stk	3,84
	Ontvangen Bankcontact 9,40			

Aankomst Werf :

Vertrek Werf :

Naam:

Handtekening:

Nrplaat:

Aangepaste openingsuren vanaf 1/3 ! Ma-vr 6u30 tot 18u30 !

AANGEPASTE OPENINGSUREN Lubbeek vanaf 10/1 6u30-18u Wilsele 7-18u

Goederen	BTW%	BTW-Bedrag
7,77	21	1,63

TOTAAL	
9,40	EUR

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05-04-2011 18:26:07

BTW BE 430.744.534
RPR LEUVEN 0430.744.534

www.andrecelis.be



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Als professioneel advies een punt is

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Tel.: 016 24 65 40
Fax: 016 24 65 39

BOUWMATERIALEN
CONTAINERDIENST
BRANDSTOFFEN
NATUURSTEEN

60173806



LEVERINGSBON 60173806

Leveringsadres:

Klant: 165001
KONTANTE VERKOOP LUBBEEK

BE

Bon aangemaakt door

1/ 1

Referentie	Vrachtwagen	Chauffeur	Datum	Levering
			DO 07/04/2011	

Aantal	Omschrijving	Fact.eenh.	Eenh.prijs	Totaal
1,00 Stk	ML-818104 SPAANPLAATSCHR. GEELVERZ 200ST 3,0 x12MM Ontvangen Bankcontact 2,11	1,0000 stk	1,7355/stk	1,74

Aankomst Werf :

Vertrek Werf :

Naam:

Handtekening:

Nrplaat:

Aangepaste openingsuren vanaf 1/3 ! Ma-vr 6u30 tot 18u30 !

AANGEPASTE OPENINGSUREN Lubbeek vanaf 10/1 6u30-18u Wilsele 7-18u

Goederen	BTW%	BTW-Bedrag
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TOTAAL	
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