Prosthetics for kids as a creative and social tool
Empowering children to explore their strongest side through creativity

Business plan presentation
Mission, Cirec’s Positioning
Which is the Pain of the Market
Marketing Strategy
Business Model
Go to Market Plan
Financial Assumptions
Mission
Cirec’s Positioning

“Create and produce prosthetics that meet kids needs”
For amputee kids between 3 and 12 years old
Who are tired of having prosthetics for grown ups and need to interact and live as kids
IKO is a modular and creative prosthetic system for kids
That automatically connects the kid with a game and learning experience
Unlike any other prosthesis that is currently on market
Our product is totally different, it allows kids to enjoy being kids even if they are missing a limb

Cirec’s positioning
We will create and produce prosthetics that meet kids needs
Agenda

Mission, Cirec’s Positioning
Which is the Pain of the Market
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Which is the pain of the market

What problem are we solving...
Amputee kids sad and unmotivated because of their missing limb. Why was I born without an arm/leg?

Amputee kids who are bullied by society, generating psychological and social affections

Amputee kids using prosthetics for grown ups and behaving as grown ups

Amputee kids using prosthetics which they cannot interact with

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The amputation of a kid is now on a second plane, now kids are enjoying being different.

Empowered kids and self confident, now they are the “cool” kids in the class.

Kids with prosthetics designed to meet the needs of being a kid.

Kids with prosthetics which they can interact, play and learn with.

Which is the pain of the market
What problem are we solving
Mission, Cirec’s Positioning
Which is the Pain of the Market
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Marketing strategy

Market segmentation
Target market

Congenital Limb and Amputee children between 3 to 12 Years Old
150 million
Disabled children aged 0 - 14 years

93 million moderate or severe disability
70%
Suffer a Congenital Limb deficiency

65.1 million
Total available market in the world

The overall rate of congenital limb deficiencies is 1.5 per 1,000 live births in the United States / Canada.

http://www.asocimed.cl/Guias%20Clinicas/medicina%20fisica%20y%20rehabilitacion/amputados.html

Served Available Market

4,791,000

10,528,000

Annual Number of Births

7,186

15,867

Congenital Limb deficiencies 0.15% per year

Marketing strategy
Market segmentation
Served Available Market
Annual # of Births in the Last 10 Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Latin America</th>
<th>North America</th>
<th>Served Market / Patients</th>
<th>Number of Prosthetics that could be sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
</tr>
<tr>
<td>1998</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
</tr>
<tr>
<td>1999</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
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<tr>
<td>2000</td>
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<td>23.054</td>
<td>46.107</td>
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<tr>
<td>2001</td>
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<td>23.054</td>
<td>46.107</td>
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<td>2002</td>
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<td>46.107</td>
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<td>2003</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
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<tr>
<td>2004</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
</tr>
<tr>
<td>2005</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
</tr>
<tr>
<td>2006</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
</tr>
<tr>
<td>2007</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
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<tr>
<td>2008</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
</tr>
<tr>
<td>2009</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
</tr>
<tr>
<td>2010</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
</tr>
<tr>
<td>2011</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
</tr>
<tr>
<td>2012</td>
<td>15.867</td>
<td>7.187</td>
<td>23.054</td>
<td>46.107</td>
</tr>
<tr>
<td>TOTAL</td>
<td>253.872</td>
<td>114.984</td>
<td>368.856</td>
<td>737.712</td>
</tr>
</tbody>
</table>

Potential Market in patients to be served for the last 10 years in Latin America and North America

NOTE: Use of Frequency 2 Prosthetics per Year

Marketing strategy
Market segmentation
Reason to Buy

Mandatory Reason to purchase of the Target Market & its Benefits

The amputee kid would love to have a prosthesis that can be a toy, an extension of his abilities or an element to interact and learn with.

“I want to have a prosthesis that I can play and interact with, something I feel comfortable with, something people can admire me for”

“I want a prosthesis that I can design or buy because I like it, and not because there are not more options”
Uniqueness
- There are not specialized prosthetics for kids, the current ones are boring, cold and designed for adults.
- Designing prosthetics combining functionality + entertainment

Product Category
- It is a market driven category that discovers a new market that currently has a real need and has not been attended.

Capabilities & Experience
- Over 38 years of experience producing prosthetics
- Amputee patients and clients knowledge
- Proximity to the health system and medical personnel
Marketing strategy

Inside the product

Marketing strategy

The product
IKO is a modular creative prosthetic system designed for children to be in control of their own prosthesis in a playful, social and friendly way. It proposes a prosthesis for two different situations:

1. A functional prosthesis for every day use
2. A playful and creative prosthesis that can be configured by the kid according to his own needs using many different types of modules that are compatible with this interface gesture.

What if kids could make their own prosthetics and have fun at the same time? Learning, creating. Being kids.
**Marketing strategy**

**Inside the product**

**Socket + battery module**

The socket is attached to a battery that powers and controls any module connected to it. It uses myoelectric sensors to send the commanding signals.

**Structural module**

This module is a strong part meant to work as an arm or leg just like a standard bar in a normal prosthesis.

**Functional module**

The example for this module is a 4 finger hand with specific advantages over a standard prosthetic hand.

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**How it works**

**Interface gesture**

This is the core of the system. It is an easy to learn and very practical gesture that communicates to the kid how to connect and configure different types of modules. It is a two step action gesture:

- **Fix** and **turn**

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**Connection port**

- arm / leg replacement
- hand / foot replacement

**Battery**

**Module**

- Structural
- Functional

-- IKO Creative prosthetic system

[https://vimeo.com/97877783](https://vimeo.com/97877783)

*Watch the video!*
The modules should fit the user’s habits for the different segments in every category that drives us to work with strategic partners.
**Target market**
Congenital Limb and Amputee children between 3 to 12 Years Old

**Category and possible applications**
LEGO sets to learn and have fun.
A special brick was designed to integrate LEGO buildings as modules. This opens the possibility to have special modules from LEGO that kids can build, hack and then create by themselves and their family and friends.

**Developing skills for the kid**
Using LEGO bricks to make new and original modules promotes creativity, learning, social awareness among the kid’s social circles.

**Amputation type**
Upper Limb

**First prototype to develope**
Structural module compatibility + Connector brick + Some LEGO sets as example

<table>
<thead>
<tr>
<th>Component</th>
<th>Average Price</th>
<th>Average Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socket</td>
<td>USD$1,800</td>
<td>USD$800</td>
</tr>
<tr>
<td>Sensor + Battery</td>
<td>USD$3,500</td>
<td>USD$1,660</td>
</tr>
<tr>
<td>LEGO module</td>
<td>depends on the set</td>
<td></td>
</tr>
</tbody>
</table>

**Gross margin**
54,04%

**Marketing strategy**
Category modules
Discovering and understanding some insights

The main goal of this pilot test was to evidence the interface gesture. In addition to this, two special LEGO sets were designed for this test having in mind two different goals: the first one (a backhoe) was a difficult set that required additional help, the goal: involving the family. and the second one was an easy building (spaceship), the goal: only kids should play.

The test was a success. The gesture was recognized easily by the kid and the LEGO sets were such a huge motivation to explore and create anything that could be fun during an additional “freebuilding” session.

*Watch the video!* Dario, wearing a backhoe built by him and his family

IKO prototype testing
https://vimeo.com/97882643

Marketing strategy
Category modules
**Target market**
Congenital Limb and Amputee children between 3 to 12 Years Old

**Category and possible applications**
Toys to wear
Controlling videogames, wearing a favorite toy, becoming a superhero (Hulk, Ironman, Spiderman), Legs and arms as doll houses...
A new opportunity for re-thinking toys as a part of kids bodies

**Developing skills for the kid**
Empowering of the kids self confidence, socializing would be easier with their peers, and “the cool” factor.

**Amputation type**
Upper / lower Limb

**First prototype to develope**
Superhero arms

<table>
<thead>
<tr>
<th>Component</th>
<th>Average Price</th>
<th>Average Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socket</td>
<td>USD$1,800</td>
<td>USD$800</td>
</tr>
<tr>
<td>Two purchases per year (stump growth)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensor + Battery</td>
<td>USD$3,500</td>
<td>USD$1,660</td>
</tr>
<tr>
<td>One purchase every 5 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toy module</td>
<td>depends on the toy</td>
<td>regular purchase</td>
</tr>
<tr>
<td>Gross margin</td>
<td>53.59%</td>
<td></td>
</tr>
</tbody>
</table>

Marketing strategy
Category modules
**Tooling category**

**Target market**
Congenital Limb and Amputee children between 3 to 12 Years Old.

**Category and possible applications**
Appliances, tools, science. Having pliers as a hand when they are meant to be pliers, using a mixer to cook with mom and dad, exploring the micro universe with a microscope as your hand, or even having a torch to discover places when going camping.

**Developing skills for the kid**
Using the right tool for the right job, could potentialize the kids skills, in the fields of arts, science, crafting, cooking... it could help to develop any kind of skill that was very difficult even to try.

**Amputation type**
Upper Limb

**First prototype to develope**
Camping and cooking equipment.

<table>
<thead>
<tr>
<th>Socket</th>
<th>Sensor + Battery</th>
<th>Tool module</th>
<th>Gross margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Price USD$1,800</td>
<td>Average Price USD$3,500</td>
<td>Average Price depends on the tool</td>
<td>50-55%</td>
</tr>
<tr>
<td>Average Cost USD$800</td>
<td>Average Cost USD$1660</td>
<td>regular purchase</td>
<td></td>
</tr>
</tbody>
</table>

- **Socket**
  - Two purchases per year (stump growth)

- **Sensor + Battery**
  - One purchase every 5 years

- **Tool module**
  - Average Price depends on the tool

**Marketing strategy**
Category modules
Mission, Cirec’s Positioning
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Business model

Strategic Partnering for Deployment
**Sockets**
Design and production

**Prosthetics Components (R&D)**

**Module Categories**
(Learning, Gaming, Tooling)

*Business model*
Strategic partnering for deployment
1. Evaluation
   - Medical evaluation and prosthesis prescription

2. Health System
   - Authorizes and pays the prosthesis

3. Rehabilitation Center
   - Patient care and assessment to produce the socket

4. Prosthesis
   - The patient chooses the prosthesis according to a catalog
   - 3D Technology production according to the kid’s needs

5. Cirec Foundation
   - We reinvest our surpluses to produce low-cost prostheses for poor patients

6. Social Impact
   - Marketing strategy: for every five prosthetics we sell, one will be donated to a poor patient

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**Players and value chain**
<table>
<thead>
<tr>
<th>Revenue Streams</th>
<th>Channels</th>
<th>100%</th>
<th>50%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rehabilitation Centers</strong></td>
<td>In North &amp; South America</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Including Fundación Cirec)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Toy stores</strong></td>
<td>Gaming &amp; Learning Stores</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Around North &amp; South America</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Prosthetics Sales</strong></td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td><strong>Complementary Modules Sales</strong></td>
<td></td>
<td>50%</td>
<td></td>
</tr>
</tbody>
</table>
Agenda

Mission, Cirec’s Positioning
Which is the Pain of the Market
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Go to market plan

Sales and marketing activities
ISPO: International Society for prosthetics and Orthotics

Medical visit to prescribers

Visit to Rehabilitation Centers & Prosthetics Producers

Digital Strategy

The launch of this new category of prosthesis will be held at the World Congress of prosthesis.

Added values are communicated to loyalize doctors and ensure a prescription of the new product.

Rehabilitation centers will be trained to produce the socket compatible with the system.

Will be used to activate demand in different parts of the world.
180 days of a mix of direct and indirect marketing such as:

- Specialized medical publications
- Free Press in newspapers, innovation magazines and TV
- Events, Conferences and medical Trade Shows
- Creating a virtual worldwide community of amputee kids
Agenda

Mission, Cirec’s Positioning
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### INVESTMENTS

<table>
<thead>
<tr>
<th></th>
<th>Pre Operative</th>
<th>Q1 Phase I - Prototypes</th>
<th>Q2 Prototypes Market Test</th>
<th>Q3 and Q4 Go To Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capex Investment (3D Printers)</td>
<td>$200,000</td>
<td>$211,500</td>
<td>$101,500</td>
<td>$200,000</td>
</tr>
<tr>
<td>Opex Pre Investment</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Opex Investment</td>
<td>$123,000</td>
<td>$444,500</td>
<td>$741,000</td>
<td>$1,732,000</td>
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<tr>
<td>Go To Market Resources</td>
<td>$123,500</td>
<td>$67,500</td>
<td>$195,500</td>
<td>$261,000</td>
</tr>
<tr>
<td>Marketing Investment</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td><strong>TOTAL INVESTMENTS</strong></td>
<td>$200,000</td>
<td>$211,500</td>
<td>$292,500</td>
<td>$1,257,500</td>
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</table>

![Image of the table with financial assumptions and projections](image-url)

### PROFITS & LIABILITIES

<table>
<thead>
<tr>
<th></th>
<th>Pre Operative</th>
<th>Q1 Phase I - Prototypes</th>
<th>Q2 Prototypes Market Test</th>
<th>Q3 and Q4 Go To Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Budget</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latam Sold Units</td>
<td>62</td>
<td>62</td>
<td>535</td>
<td>1,273</td>
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<tr>
<td>North America Sold Units</td>
<td>124</td>
<td>124</td>
<td>878</td>
<td>1,993</td>
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<tr>
<td>Latam Revenue</td>
<td>$328,600</td>
<td>$328,600</td>
<td>$2,833,264</td>
<td>$6,748,862</td>
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<tr>
<td>North America Revenue</td>
<td>$657,200</td>
<td>$657,200</td>
<td>$4,654,291</td>
<td>$10,560,263</td>
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<tr>
<td><strong>TOTAL Year - Revenue Budget</strong></td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$985,800</td>
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<tr>
<td>Costs Goods &amp; Operations</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Cost of Sales</td>
<td>$463,074</td>
<td>$463,074</td>
<td>$3,441,280</td>
<td>$7,955,274</td>
</tr>
<tr>
<td>Cost of Logistics &amp; Exports to Country Origin</td>
<td>$88,722</td>
<td>$88,722</td>
<td>$673,880</td>
<td>$1,557,821</td>
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<tr>
<td>Orthopedics Sales Commission</td>
<td>$147,870</td>
<td>$147,870</td>
<td>$1,123,133</td>
<td>$2,596,369</td>
</tr>
<tr>
<td><strong>TOTAL Year - Costs Budget</strong></td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$689,666</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$296,134</td>
</tr>
<tr>
<td>Gross Margin 30,0%</td>
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<td></td>
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</tr>
<tr>
<td>EBITDA</td>
<td>$1,057,500</td>
<td>$1,057,500</td>
<td>$1,351,000</td>
<td>$2,272,000</td>
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<tr>
<td>EBITDA Margin -77,2%</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Capex</td>
<td>$200,000</td>
<td>$200,000</td>
<td>$200,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>Preoperative</td>
<td>$123,500</td>
<td>$123,500</td>
<td>$1,732,000</td>
<td>$1,732,000</td>
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<tr>
<td><strong>NET OPERATIONAL CASH FLOW</strong></td>
<td>($1,767,866)</td>
<td>($1,767,866)</td>
<td>($2,777,661)</td>
<td>($2,777,661)</td>
</tr>
</tbody>
</table>

**PROJECT VALUATION**

<table>
<thead>
<tr>
<th></th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Break Even in UNITS</td>
<td>109</td>
<td>119</td>
<td>137</td>
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<tr>
<td>Investment Recovery</td>
<td>26 Months</td>
<td></td>
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</tr>
<tr>
<td>ROI in Three Years</td>
<td>15.3%</td>
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</tbody>
</table>
Thank you!