

SOAK-T

Design → Prototype → Patent → License

A story about taking an idea
from concept toward market

Peter Moloney



DESIGN

THE ORIGINAL PROBLEM

I wanted to create a neighborhood snowball fight.

But snowball fights quickly became chaotic.

WHO WAS HIT?

WHO WAS STILL IN THE GAME?

HOW COULD A SNOWBALL FIGHT BECOME AN ORGANIZED SPORT?

THE PROBLEM HAD A HISTORY

YUKIGASSEN

Sobetsu, Hokkaido, Japan — 1987

A group of young residents wanted to bring more visitors to their town during winter.

After seeing tourists enthusiastically playing with snow, they asked:

Could a snowball fight become an organized sport?



THEY DESIGNED A SYSTEM

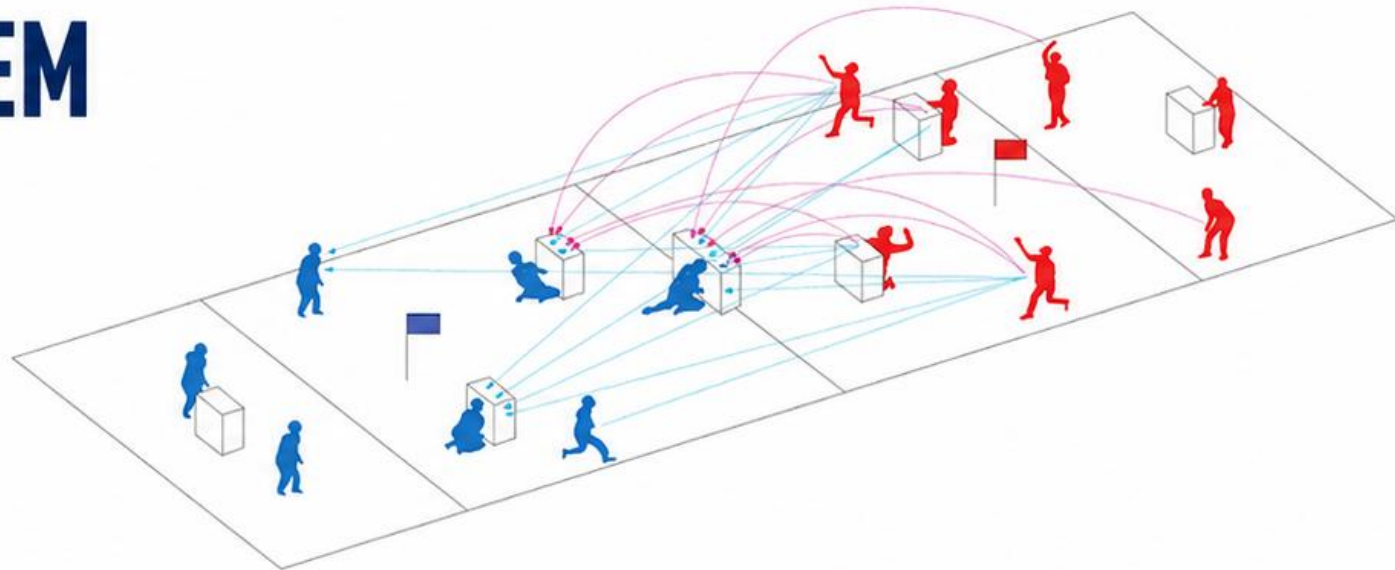
1988 — Rules completed

1989 — Snowball-making equipment and protective helmet developed

1989 — First tournament with 70 teams

Their solution wasn't just a product.

RULES + EQUIPMENT + FIELD + COMPETITION



MY APPROACH WAS DIFFERENT

YUKIGASSEN

Change the rules around the snowball fight.

Same problem.

MY IDEA

What if the clothing could show when someone was hit?

Different design solution.

MAKE THE IDEA REAL

PROTOTYPE 01

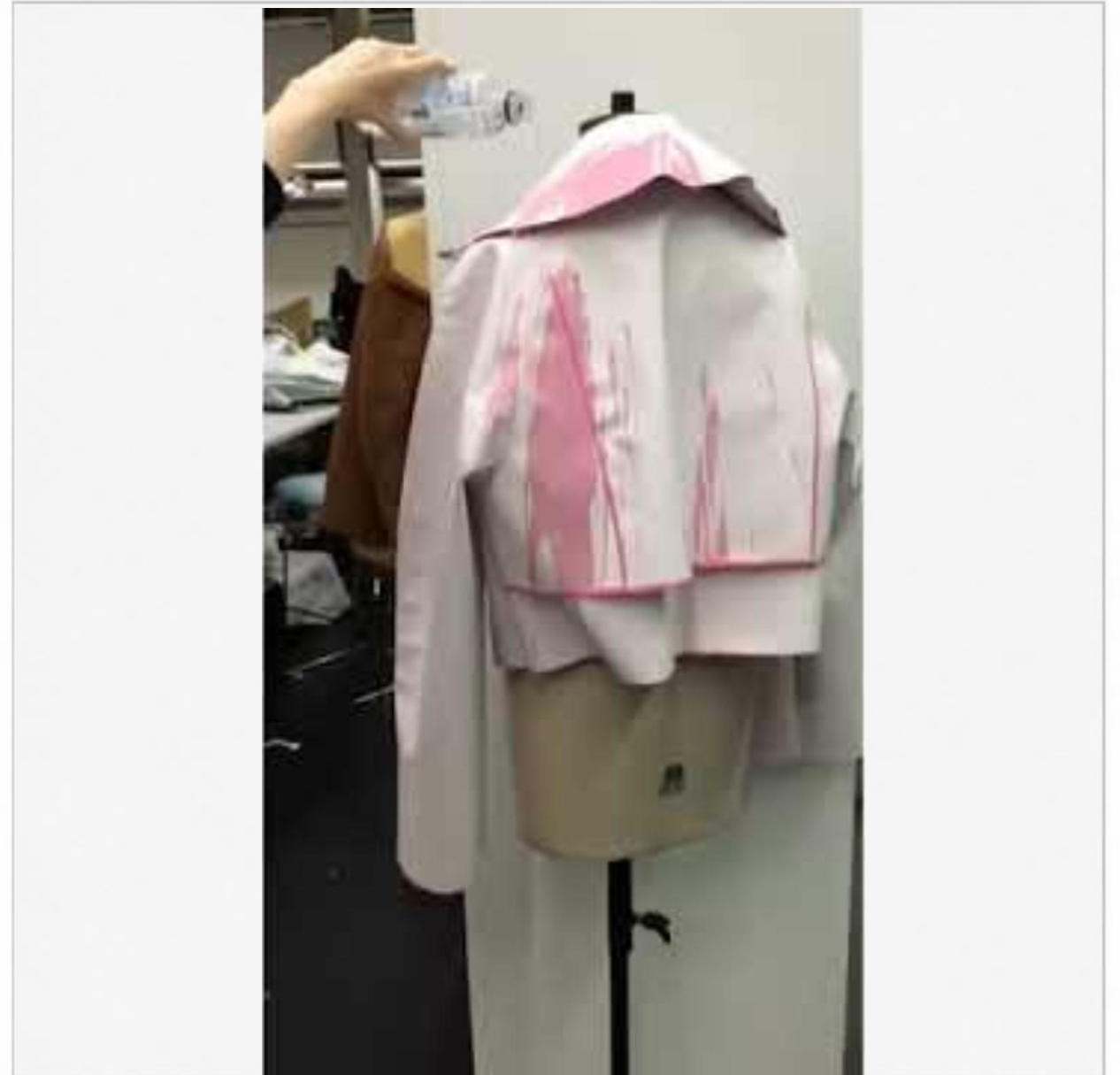
SPORTS PINNY + HYDROCHROMIC WHITE PAINT

Hydrochromic paint becomes transparent when wet.

My assumption was simple:

SNOWBALL → MOISTURE → VISIBLE HIT

So I made one.



GET FEEDBACK EARLY

I CONTACTED THE PRESIDENT OF YUKIGASSEN

I showed him the snowball vest concept.

He was interested, but asked an important question:

HOW FAST DOES THE PAINT REACT?

Ultimately, he passed on the idea.

But the question pointed directly
at what I needed to test.



**Yukigassen
International**

THEN I TESTED IT

PROBLEM 01 — DRY WINTER

There wasn't enough reliable snow to keep testing the game.

PROBLEM 02 — THE MATERIAL

Hydrochromic paint needed liquid moisture.

Below freezing, snowballs didn't reliably provide enough moisture to activate it.

MY ASSUMPTION WAS WRONG.

Snow wasn't the same as water.

THE MISTAKE CHANGED THE PRODUCT

The material didn't work well
for snowballs.

BUT IT WORKED GREAT WITH WATER.

The prototype didn't just prove
whether my idea worked.
It showed me what the
product should become.

SNOWBALL VEST



SUPER SOAKER GAMES



SOAK-T

TESTING LED TO REDESIGN

I TESTED SOAK-T WITH KIDS AT A DAYCARE

The vest worked with water.

But testing showed me how the design could be improved.

I made two major changes:

- 🎯 **SMALLER TARGETS**
Made hits more precise and clearly defined.
- 🎯 **INTERCHANGEABLE TARGETS**
Allowed targets to be removed and replaced.



TEST → OBSERVE → REDESIGN

TURN THE REDESIGN INTO SOMETHING SOMEONE CAN MAKE

Superhero movies were very popular at the time.

I used that context as inspiration for the next version of Soak-T.

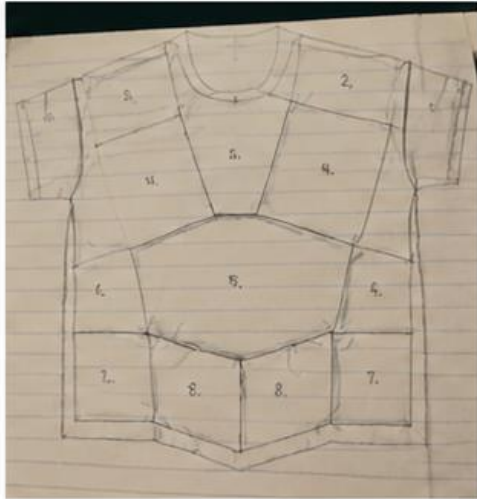
THE IRON MAN SUIT INSPIRED THE TARGET LAYOUT

Smaller, interchangeable targets became part of the vest rather than one large reactive surface.

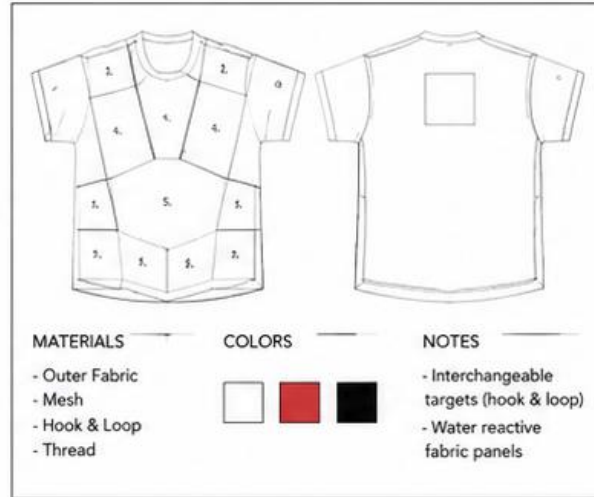


SKETCH → SIMPLE TECH PACK → LOCAL TAILOR → NEW PROTOTYPE

SKETCH



SIMPLE TECH PACK



LOCAL TAILOR



NEW PROTOTYPE



I created drawings and a simple tech pack.

Then I brought them to a local tailor,
who made the redesigned prototype from my drawings.

PATENT

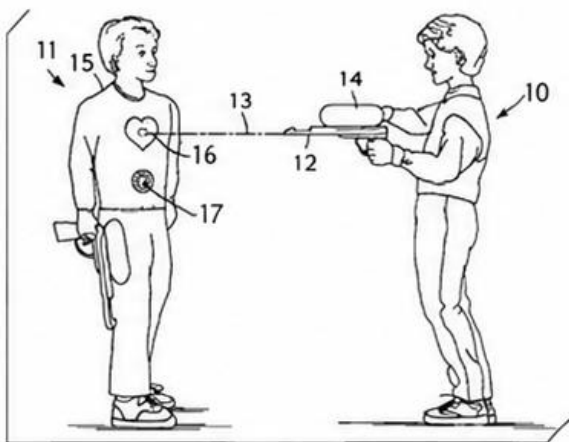
FIND OUT WHAT YOU ACTUALLY INVENTED

Getting a patent meant looking backward.

PRIOR ART

- What had already been invented?
- How had other designers approached the same problem?
- What was actually different about mine?

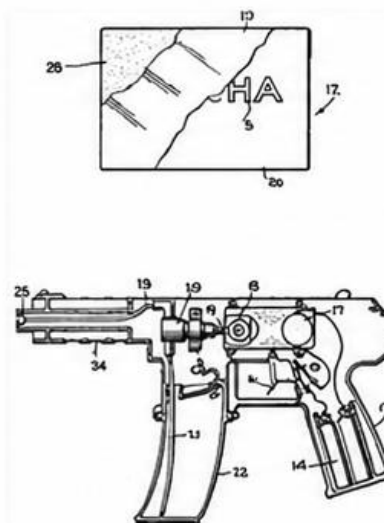
US5826879A 1998-10-27 Shooter and fabric target water gun game



English Abstract:

A mock battle game for children in which each player in the role of a shooter is provided with a toy water gun which projects when triggered, a beam of water in the direction in which the gun is aimed. Each player who acts as a target wears a T-shirt or a similar garment having an outer layer lined by an inner layer. The outer layer is formed of a normally opaque white fabric which when a portion thereof is made wet by the beam is then rendered translucent. The inner layer is formed by a red-colored fabric which when an overlying portion of the outer layer is rendered translucent then exhibits a blood-like effect to indicate a hit.

US4743030A 1988-05-10 Water gun and target combat game set



English Abstract:

A simulated combat game set in which the players are provided with toy water guns and each player wears a target. When a gun is fired by a player it shoots out a beam of water, each player trying to hit a vulnerable site on the target worn by an opposing player and thereby strike him out. To this end, the vulnerable site on the target is constituted by a plaque or label having printed thereon a strike symbol or other hit indicator covered by a mask that conceals the indicator. The hit indicator is rendered readable only when the mask is made wet and transparent by a water beam impinging thereon.

YOU CAN'T UNDERSTAND WHAT'S NEW WITHOUT UNDERSTANDING WHAT CAME BEFORE.



US 20150296890A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2015/0296890 A1**
(43) **Pub. Date: Oct. 22, 2015**

(54) **WEARABLE GARMENT WITH INTERCHANGEABLE WETNESS INDICATOR**

(52) **U.S. CL.**
CPC .. *A41B 1/08* (2013.01); *A41D 27/20* (2013.01)

(71) Applicant: **Peter Moloney**, St. Paul, MN (US)

(57) **ABSTRACT**

(72) Inventor: **Peter Moloney**, St. Paul, MN (US)

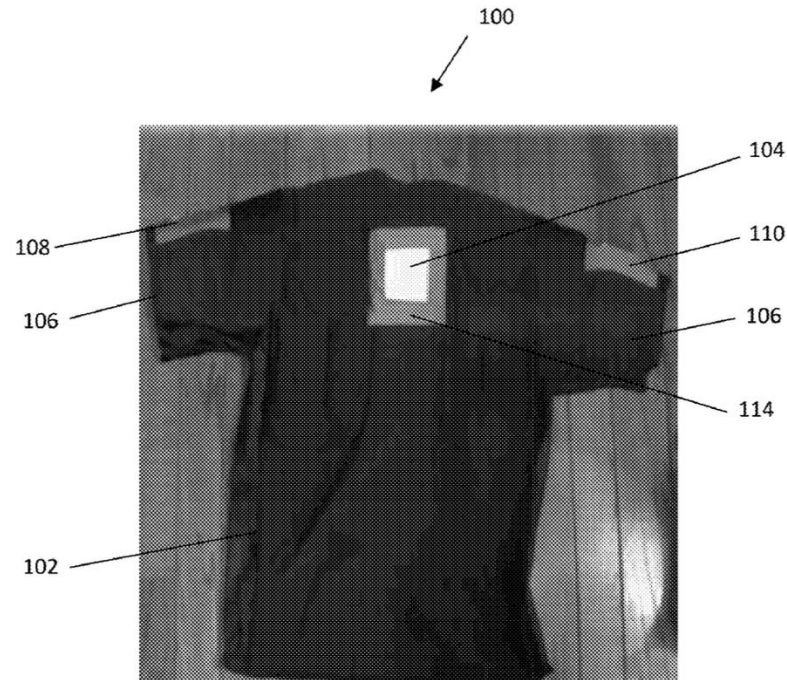
Embodiments include a wearable garment for recreational water shooting games. The wearable garment has a first surface, and a first target block removably coupled to the first surface. The first target block has a reticulated porous body and a coating. The coating can be opaque when the first target block is dry. The coating can become transparent to visible light when the first target block is exposed to water, and reveal an indicia underneath the coating. Embodiments also include a method of using the wearable garment for playing recreational water shooting team game between two teams.

(21) Appl. No.: **14/254,534**

(22) Filed: **Apr. 16, 2014**

Publication Classification

(51) **Int. Cl.**
A41B 1/08 (2006.01)
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Patent Application Publication

Oct. 22, 2015 Sheet 3 of 6

US 2015/0296890 A1

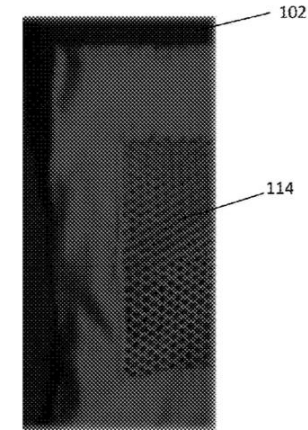


FIGURE 3A

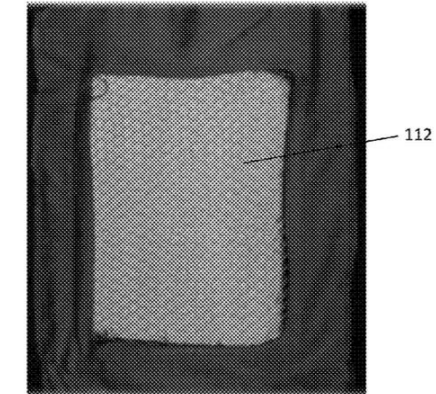


FIGURE 3B

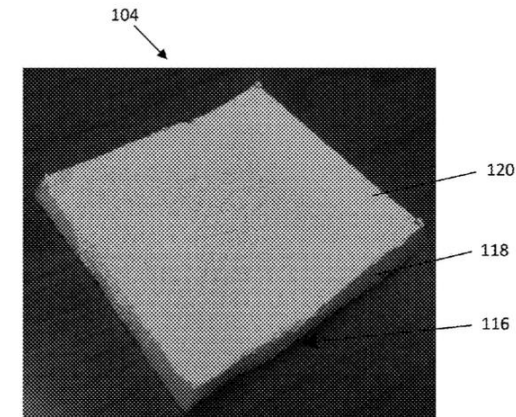


FIGURE 4

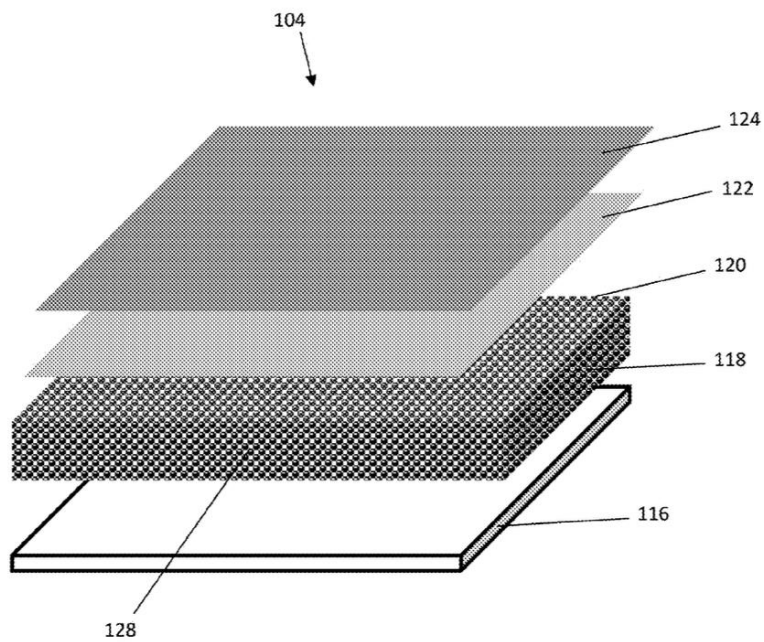


FIGURE 5

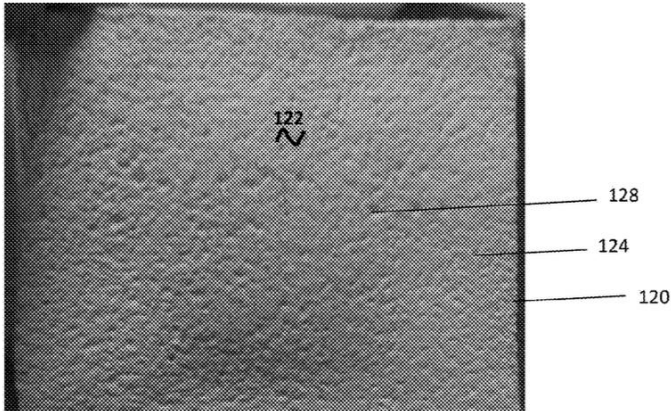


FIGURE 6

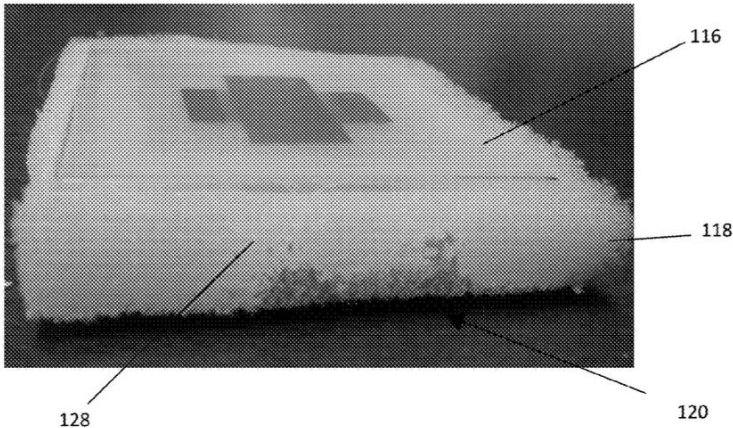


FIGURE 7

LICENSE

GETTING THE PRODUCT TO MARKET

I had an idea, a working prototype, and a patent application.

But I still needed a way to bring **SOAK-T** to the toy industry.



GLOBAL TOY EXPERTS

I partnered with Global Toy Experts to help **develop** and **license SOAK-T**.

THEY HELPED WITH:

PRODUCT DEVELOPMENT

Preparing the concept for the toy market.

MANUFACTURING

Working through how the product could be produced.

LICENSING

Presenting the invention to toy companies and pursuing a licensing deal.

INVENTOR → **GLOBAL TOY EXPERTS** → **TOY COMPANY**

*I designed the product. **They** helped me take it to the industry.*



GLOBAL TOY EXPERTS

CLIENTS & LICENSEES

Global Toy Experts has had the privilege to work with and serve leading toy and entertainment companies worldwide.



Hasbro



Radio Flyer



Warner Bros.



DC Comics



K'NEX



ZURU



UL



NFL



NBA



U.S. Women's
National Team



Nickelodeon



The Pokémon Company
International



Disney



Mattel



PlayMonster



Spin Master



Crayola



VTech



Tomy



Jakks Pacific



Mega



Bendon



Basic Fun!



The Bridge Direct



Disguise



MGA Entertainment



WowWee



Just Play

The background of the entire image features a light blue halftone dot pattern. Two large, dynamic water splashes, rendered in various shades of blue, are positioned on the left and right sides, framing the central text. The text itself is arranged in three lines, with a bold, stylized font and thick black outlines. The first line is 'XTREME' in blue, the second is 'WATER' in white, and the third is 'BATTLE VEST' in green. The overall aesthetic is energetic and aquatic.

XTREME WATER BATTLE VEST

THE ULTIMATE PAINTBALL ALTERNATIVE.

WHAT IS **THE XTREME** **WATER BATTLE** **VEST (WBV)?**

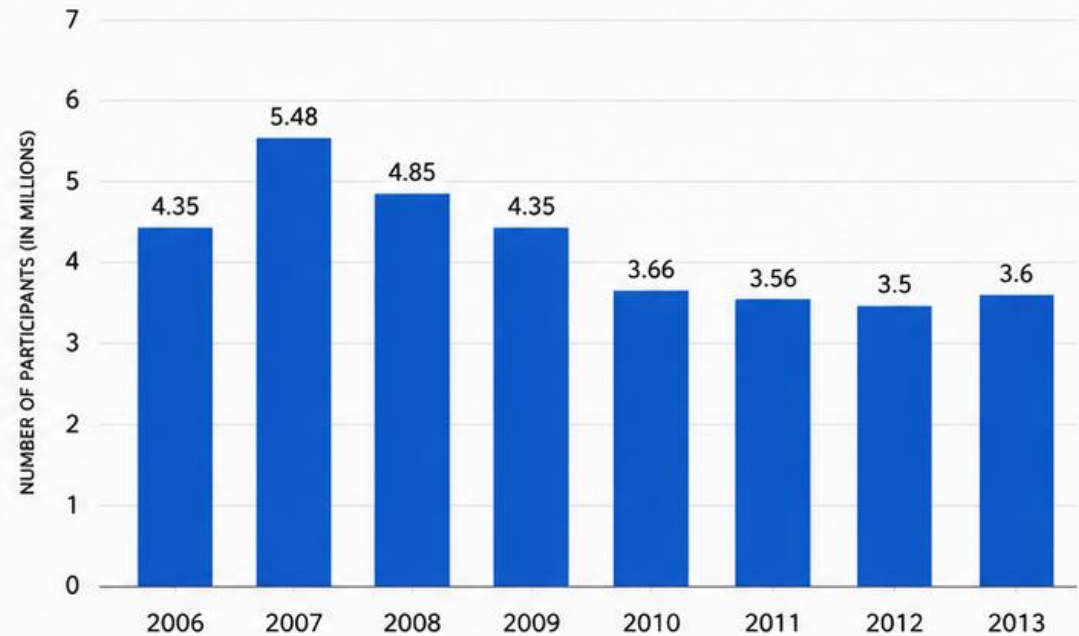
The WBV is a **patent pending**,
fun, multiplayer
water combat system.



XTREME WATER BATTLE VEST

According to **American Sports Data Inc.**,
paintball is consistently
top 5 alternative sport in the
United States.

NUMBER OF PARTICIPANTS IN PAINTBALL
IN THE UNITED STATES FROM 2006 TO 2013 (IN MILLIONS)*



*Source: American Sports Data Inc. This statistic shows the number of participants in paintball in the United States from 2006 to 2013. In 2013, the number of participants (aged six years and older) in paintball amounted to approximately 3.6 million.



THE AVERAGE PLAYER SPENDS
AROUND **\$44** EACH TIME OUT
TO THE PAINTBALL FIELD.

WHAT IF
YOU COULD MIMIC THE EXPERIENCE
OF PAINTBALL
WITHOUT ALL THE MESS,
FAR MORE SAFELY,
WITH A LOT LESS COST
AND APPEAL TO A
FAR WIDER AUDIENCE?

The patent pending **Xtreme Water Battle Vest** system allows you to do just that!

HOW?



DRY
OPAQUE



WET
TRANSPARENT



DRY AGAIN
OPAQUE AGAIN

The water vest system incorporates a special paint that is **opaque** when dry yet turns **transparent** when wet.

Vest components (inserts) that have been treated with the paint then reveal the **design or colors underneath** when wet.

When the paint dries it becomes **opaque** again and can be **re-used** over and over!

SAMPLE SCORING.

Competing teams get awarded points for



HITTING TARGETS
on another player



FOR HAVING TARGETS
that are “clean” after
a specific play period



During play, players can turn in “hit targets”
for new dry targets before the time period is up.



A score keeper can keep track of hits through
turned in targets and by looking at each
player at the end of the battle period.



If all of a players targets are hit they can
either sit out or have to get new inserts
to continue.

EARLY TESTING PICTURE:



HOW SCORING WORKS



Hit targets on
opponents vest
to score points.



Keep your targets
clean (dry) at the end
of the period to score
bonus points.



Turn in hit targets
for new dry inserts
during play to
stay in the game.

THIS INNOVATION AND APPROACH TO GAME PLAY OFFERS MANY BENEFITS:



EASY & FLEXIBLE SCORING

EXTENDED DRYING TIME

for the inserts facilitates scoring.

EASILY INTERCHANGEABLE INSERTS

allow for quick re-entry into a game.

THE HYDROCHROMIC PROPERTIES

of the insert provide visual indication of the status of the combatant until the end of the game or at any time during the game.

THE **XTREME** WATER BATTLE VEST

IS EXCITING, YET SIMPLE,
ENDLESS FUN.



RE-USABLE PATENTED TARGETS



PLAY ANYWHERE



VERY SAFE



**VIRTUALLY ANY
AGE GROUP CAN PLAY**



**FREE AND ENDLESS
AMMO SUPPLY**

THE DETAILS.



XTREME WATER BATTLE VEST
IS A PRODUCT THAT IS **AVAILABLE FOR LICENSE**

01

IT IS **PATENT PENDING.**

02

THE NUMBER OF INSERTS AND THE DESIGNS UNDERNEATH THE INSERTS CAN BE CREATED IN A VARIETY OF SHAPES AND CAN INCLUDE "LICENSED" DESIGNS.

03

PROTOTYPES ARE AVAILABLE FOR LIVE DEMONSTRATIONS.

FOR FURTHER INFORMATION REGARDING THIS PRODUCT PLEASE CONTACT:



GLOBAL TOY EXPERTS