

Camp BizSmart™ enflux Product Innovation Case 2017

Problem Statement: Physical fitness is a strong indicator of good health, a healthy mindset and longevity. Whether you are playing a team sport or individual sport/activity or in rehabilitation for injury, your state of health both physical and mental will be enhanced if you move correctly to minimize strain and stress and promote healthy movement. The lack of physical fitness therefore makes everyone vulnerable to injury, fatigue and illness.

Opportunity: Identify the need, size of market, performance ability desired, number of injuries, time to recover in the category that you select: sport performance, personal activity performance, physical fitness and performance, rehabilitation from injury or illness, temporary or chronic.

Objectives: Use the enflux motion capture sensor clothing technology to improve the sport/activity or rehabilitation experience to:

- Create a full body presence experience with the motion capture technology.
- Improve balance, strength, coordination, and/or specific skills needed for the sport/activity or rehab.
- Address conditioning and proper body mechanics
- Capture all data from the sensors and send it wirelessly to personal mobile devices and physical therapy databases
- Design the clothing for comfort and to fit the selected activity. Be sure it is visually appealing to your target customer.
- Create a way to track and challenge personal progress and to compare against others doing the same sport/activity or rehab
- Where appropriate create a fun and social component to your application

Outcomes:

- Measure performance mastery and benefit, including strength, endurance, ease and correct position, etc.
- Design in remote monitoring for a personal trainer, coach, or physical therapist
- Provide starting point baseline performance against others in the same class of fitness training/activity or recovery
- Demonstrate what an "experience will be like as if you are the customer"
- Identify a specific customer market in which your product would gain most traction and viability
- A marketing plan which identifies points of differentiation for the product, and specific marketing tactics to drive sales.

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Business Plan Requirements:

- A customer centric product design concept.
- A basic physical prototype.
- Competitive analysis: features, benefits and advantages to differentiate your product from others in the market.
- Pricing plan including cost of goods (COGs), marketing and return on investment (ROI)
- A revenue model including sale of the clothing **AND** income for data captured from the user
- Marketing and Sales promotion Strategy
- Customer input and feedback to show you have listened to the voice of the customer (VOC)
- Identify companies that would make strong partnerships noting how they add value
- Describe potential health benefits and health savings.
- Tell a story to illustrate customer use and benefit
- Why is your design better than a competing product?

Constraints:

- Your motion capture clothing must look different than the original enflux current design.
- Be sure that your product design matches the use and customer it is intended for.



Facts and Benefits of Physical Activity

FACTS

- Nearly half of American youths aged 12-21 years are not vigorously active on a regular basis. About 14 percent of young people report no recent physical activity. Inactivity is more common among females (14%) than males (7%) and among black females (21%) than white females (12%).
- Participation in all types of physical activity declines strikingly as age or grade in school increases.
- Only 19 percent of all high school students are physically active for 20 minutes or more, five days a week, in physical education classes.
- Social support from family and friends has been consistently and positively related to regular physical activity.

BENEFITS OF PHYSICAL ACTIVITY

- Helps build and maintain healthy bones, muscles, and joints.
- Helps control weight, build lean muscle, and reduce fat.
- Reduces stress and anxiety, helps maintain a positive mindset.
- Prevents or delays the development of high blood pressure and helps reduce blood pressure in some adolescents with hypertension.

Physical activity to combat stress, reduce anxiety, maintain positive mental health

Teen fitness is critical for physical and mental health not just controlling weight. Yet it doesn't get as much attention. Adolescents need 60 minutes of moderate to vigorous physical activity every day to stay healthy, yet teens often fail to meet this standard. (One study showed that less than 10% of high school students got their daily hour of exercise.)

But exercise has particular benefits for pre-teens and teens. It can:

- Reduce anxiety, stress, and depression
- Improve self-esteem
- Boost academic performance
- Help establish lifelong healthy habits

That's in addition to the way fitness helps teens manage their weight, build muscle strength and bone mass, and control blood pressure. Pretty convincing! But rates of physical activity tend to decline as kids get older. They're busier with school and friends, they are easily discouraged if they feel their performance doesn't measure up to their peers, and puberty can make them feel ashamed of their bodies.

Ways to get physical activity:

Team sports: Organized sports provide not only physical activity, but good friendships and lessons in teamwork, motivation, and staying organized.

Individual pursuits: Team play isn't for everyone. Some pre-teens and teens prefer activities they can practice on their own, such as running, biking, yoga, horseback riding, or board sports.

Everyday play and movement: Outside of more organized workouts, plenty of other physical activities can contribute to meeting that daily 60-minute goal. Think biking to school, dancing and even walking.

Source: Li K, Haynie D, Lipsky L, et al. Changes in Moderate-to-Vigorous Physical Activity Among Older Adolescents. Pediatrics. 2016;138(4).

Rehabilitation Benefits/Reasons to Use Physical Therapy

Physical therapists treat people of all ages and abilities. Here are some ways a physical therapist can help a individual.

Maximize Your Movement

Pain-free movement is crucial to your quality of life, your ability to earn a living, and your independence. Physical therapists are movement experts who can identify, diagnose, and treat movement problems.

- Physical therapy is generally required for those with permanent disabilities, those who have had a major injury or accident and is in a recuperating phase, or for those who are suffering from crippling diseases like arthritis, low back pain, or cerebral palsy
- Coping with sports injuries often requires physical rehabilitation. Physical therapy helps people rebuild strength and movement in parts of their body after an injury. Therapy can also help someone manage pain and prevent permanent damage and recurring problems.
- It is possible for the patient to regain a major share of the mobility of his/her joints, achieve flexibility, and acquire better balance and coordination as far as his/her overall self is concerned. Apart from this, physical therapy also helps in significantly improving the overall fitness and health of the patient.
- Physical therapy is also very effective in aiding children to cope with issues such as developmental delays or muscle and joint weaknesses that could happen in their early years.

Participate In Your Recovery

- To receive the full benefits of physical therapy, it is important that the patient follows the instructions. Physical therapy needs time to cure and
 equally important is the fact that the patient has to undergo the treatment in the perfect way possible always to receive the best results.
- Physical therapists work collaboratively with their patients and clients. Treatment plans are designed for each person's individual goals, challenges, and needs.
- Remember, the final result or complete recovery through physical therapy is a combination of diligence, compliance, and dedication, and that requires continued interaction and coordination between the patient and the physiatrist.
- To sum it up, physical therapy is hugely effective in treating injured joints, bones, muscle weaknesses, and many neurological ailments. But, it must be done in the proper way, under the supervision of an able physiatrist. Else, it won't produce the desired results nor would the patient ever recover early either.

Avoid or Reduce Pain Medication – Physical therapy may make is possible to reduce pain medication and even stop using pain medication

Avoid Surgery or Prepare for a Better Surgical Outcome – Physical therapy may be an alternative to surgery, it may also reduce recuperation time following surgery.