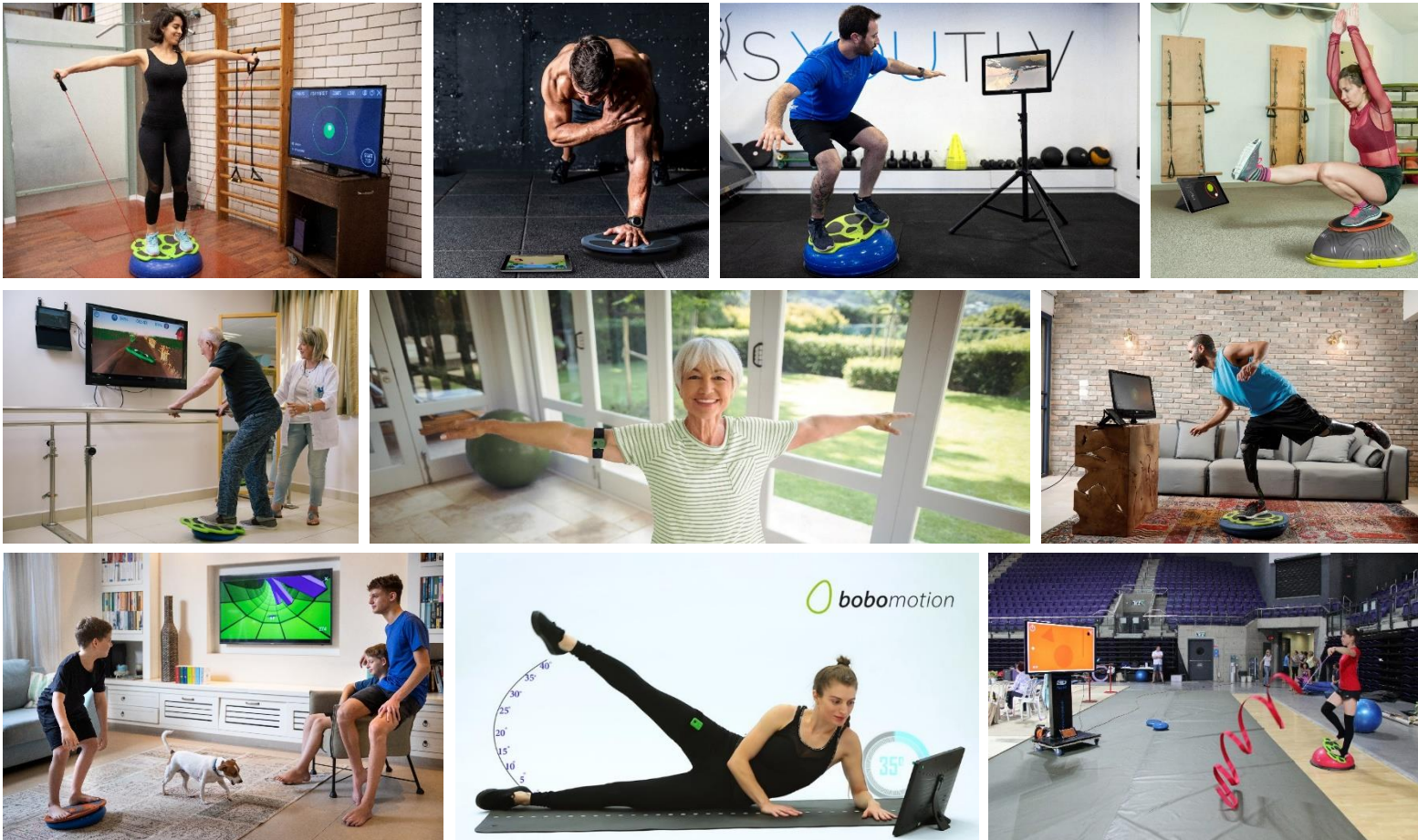


# ***BoBo Seminar 2024***



<https://bobo-balance.com/>

# BoBo: Meet the company



*Designed by Physical Therapists*



## BoBo: Meet the company



BoBo was founded in 2015, by two experienced physiotherapists who were looking for ways to keep their patients motivated. Inspired by the phrase Progress Through Play, BoBo created an innovative device that brought physical therapy, fitness and balance training into the modern world.

By turning traditional training products into smart, integrative and interactive training platforms, BoBo's products make the workouts much more challenging, engaging and fun, motivating patients to stick with their training programs.

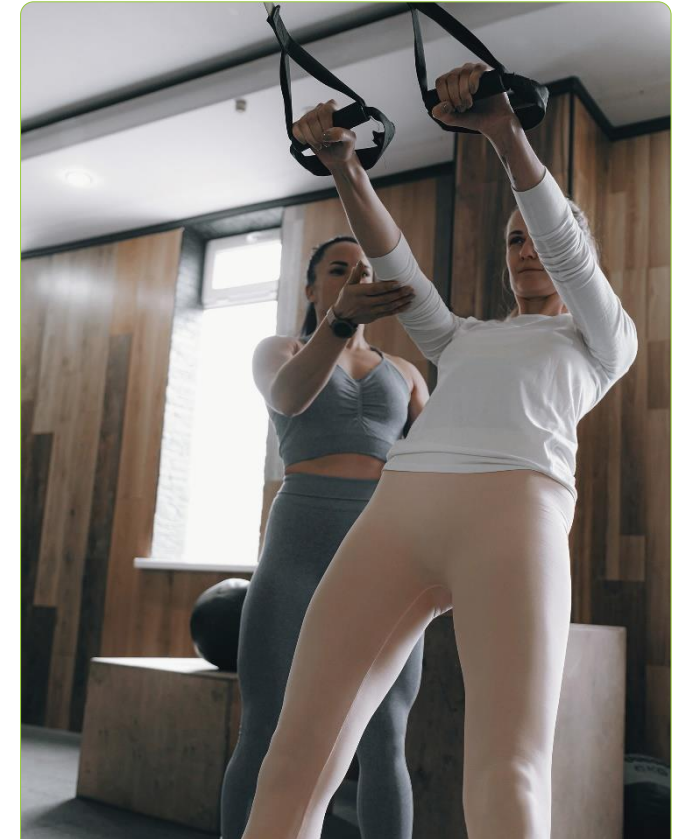
## Therapy exercises problems:



**Boring**



**Not measurable**



**Requires professional guidance**

# Therapy exercises problems:

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Therapy exercises is quite a challenge! All therapists agree that training is clearly one the most important part of rehabilitation, But here some problems –

1. For some reason, most patients simply don't do them.

Why? Well, it's boring.

You explain to your patient how important training is for their recovery.

They try to complete the session you gave them, but they simply get bored and fail.

2. The second problem is that you can't measure and quantify most of the exercises you assign to your patients.

Why is measuring the patient's performance and progress so crucial? There are several reasons, and here are two:

a. The ability to establish clear and measurable goals, and enabling your patients to monitor their improvement and progress over time, its a strong motivator.

b. The option to adjust And to fine-tune the exercise parameters based on real subjective and objective data increases the overall effectiveness of the program.

3. Now, these 2 problems I've just mentioned, created a third problem – many exercises require professional guidance.

Why –

a. You need to motivate the patient to complete their program because it usually boring.

b. You need to measure and monitor your patient's exercise performance.

c. You need to ensure they are executing the exercise correctly.

And eventually it translated into manpower challenges... We don't always have the time for both treatment and training in one session

# Our Solution – BoBo turns exercises into a guided, fun and measurable experience



Interactive balance board & wearable sensor



Fun engaging & interactive

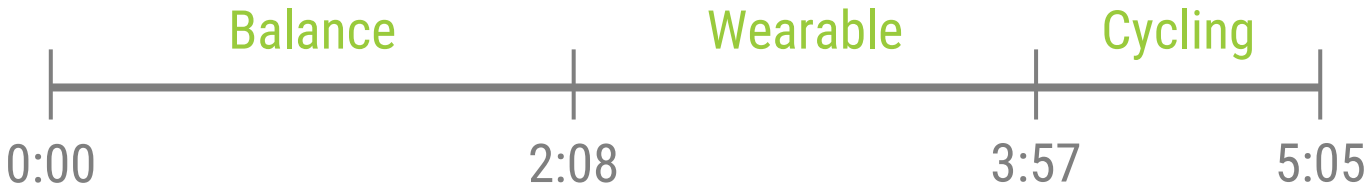


Measurable



Virtual trainer

# Here's how it works:



## Here's how it works:



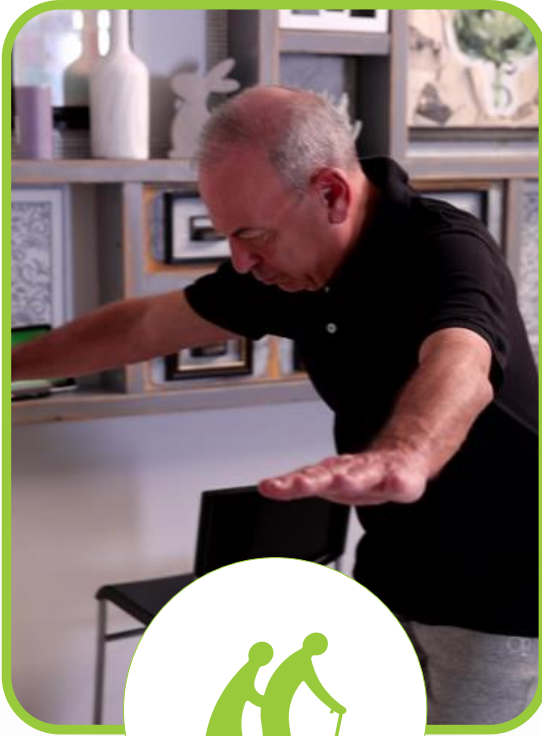
BoBo Pro 2.0 is a comprehensive solution that digitizes all types of therapeutic exercises and tools (including balance, strength, flexibility, and aerobics) to facilitate better patient outcomes and more efficient practice.

Product page: <https://www.bobo-balance.com/bobopro>

Intro movie - <https://youtu.be/hl9rK6Du-Ow>



**A product for everyone** – BoBo is suitable for patients of any age and at any stage of health or wellness.



Seniors



Adults



Children

# Case Study 1

Choose: **A Game**



Choose: **The Level of support**

Choose: **The Exercise posture**

Choose: **A Balance training tool**

# Case Study 1

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Case study 1 – Shows very well how the therapists using all 4 principles to adjust the bobo training to the patient.

Avi, 87 y.o, with late-stage dementia. His situation is bad, he is wearing a diaper most of the day and he has no reason to get up from his wheelchair. And that's not all, he also had a right hip replacement recently.

Martha, his therapist, is trying to encourage weight bearing on his right leg. She is aware that his low functioning level will not allow him to stand on the bobo, so she is using a bar for support.

By placing the “healthy” foot on the bobo to controlling the game, Avi is shifting his weight to the right leg. So now, not only weight-bearing achieved, but Avi is also standing, which is important

By playing a very simple game, he is doing a motor-cognitive task as well, and above all these, the most important is that he is **happy!!!**

## Case Studies 2-5

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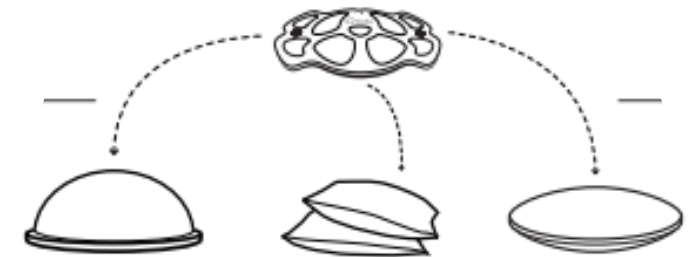


## Case studies 2-5

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- a. Scene 1: A girl with CP exhibiting a flexor pattern. Her therapist is making efforts to motivate her to perform cervical extension exercises.
- b. Scene 2: Basic balance mixed with ROM training using the wearable sensor.
- c. Scene 3: Hip ROM – Flx, Ext, rotation.
- d. Scene 4: Classic shoulder ROM – measurement and training after a shoulder injury. Improving range of motion.

# Easy to use – built on common exercises and tools that therapists use in their daily routines



## Easy to use – built on common exercises and tools that therapists use in their daily routines

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Our main goal was to create something that physical therapists will actually use on their daily routine, which means – has to be as simple as possible.

Here are a few examples how we did it –

1. Slide 14 - We didn't want to invent a new rehabilitation concept like other sometimes do. We are using the same common training we all use anyway, so you can continue to use the exercises you're familiar with. With no need to learn a new method.  
In the slide above – an example of how to use common balance training tools that we all have in our clinics.

# Easy to use – Software

**Therapist**

**Patient**

**Data**



**Personalized  
Training Program**

**Gamified  
Experience**

**Real-time  
Biofeedback**

**Assessment  
& Analysis**

**Progress  
Tracking**



## Easy to use – Software

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2. Slide 16 - We spent thousands of hours on creating a simple to use software so with 3-4 taps on the screen, you can start a session with no need to register and fill in so many parameters before:)

# Easy to use – One sensor that digitizes all 3 training categories



Motion sensor



## **Balance**

Coordination & Stability



## **Wearable**

Strength & Flexibility



## **Cycling**

Endurance & Aerobic

## Easy to use – One sensor that digitizes all 3 training categories

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3. Slide 18 - We use only one sensor and one software!


Think about trying to attach 4 or 6 sensors to your patient every time you want to train. Well, you'll get very accurate measurements, but will you keep doing it after 1 month?


# Cost-Effective technology-based tools

 **Digital & Interactive**





**Huber 360 - \$45K**      **Biodex - \$20K**

 **Analog & Passive**



**Standard balance training tools**  
No gamification, no measurement.

 **bobo**



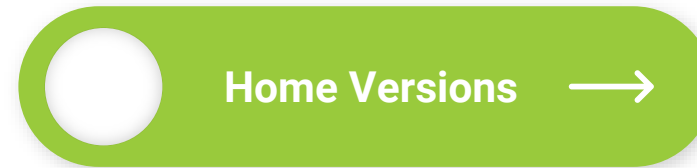
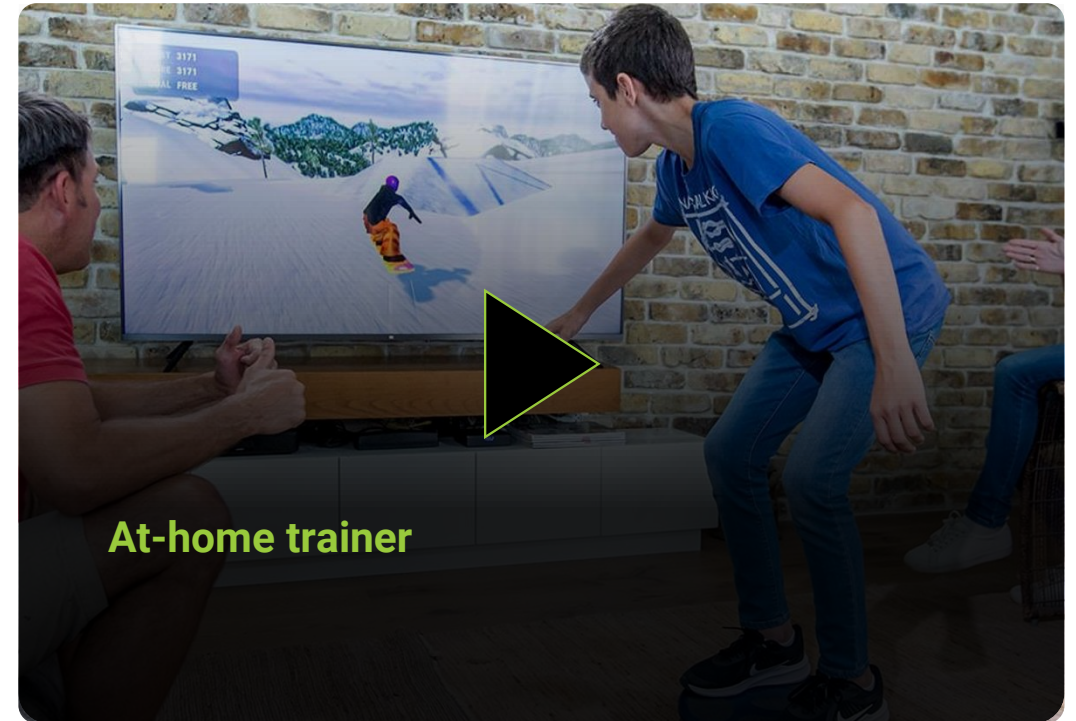
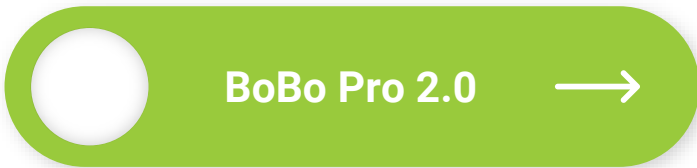
## Cost-Effective technology-based tools

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One of our main objectives was to keep it affordable so any clinic could have it! And later, any patient!  
Here's one example from the balance solution.

While some companies created big and expensive machine to take balance training and measurement to the next level, we decided to do things different and to integrate the standard balance tools in our solution in order to keep it simple and affordable.

# Remote therapy monitoring



# Remote therapy monitoring



Now, lets talk about training at home.

We all know that it never ends at the clinic. The patient must exercise at home.

Our target was to create a complete solution, so for that reason we have developed our home version as well.

The patient can take it home and train on his own.

The therapist can keep monitoring his performance and progress remotely + adjusting all exercise parameters according to the progress.

Movie: <https://www.youtube.com/watch?v=P1EqhphpQUg&feature=youtu.be>

# Make your patients smile with a fun and rewarding gamified experience





# BoBo's in-clinic smart training station – the virtual trainer enables your patients to train independently and more effectively



# BoBo's in-clinic smart training station – the virtual trainer enables your patients to train independently and more effectively

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So, here's how it looks like – a smart training station that every clinic should have!

Integrate technology in exercise. It gives you so much!

While working hands-on with one patient, the other patient can have a 10 minutes professional training session with guidance, measurement and games.

Or, you can use it when you are next to your patient – giving him the feeling that his treatment is more accurate and effective!

And these are just some general benefits.. There are so much more..

**Trusted** by thousands of therapists and patients.



Professionals

**8000+**

BoBo technology is already used by more than **8000** physical therapy clinics, rehab centers and hospitals



Home users

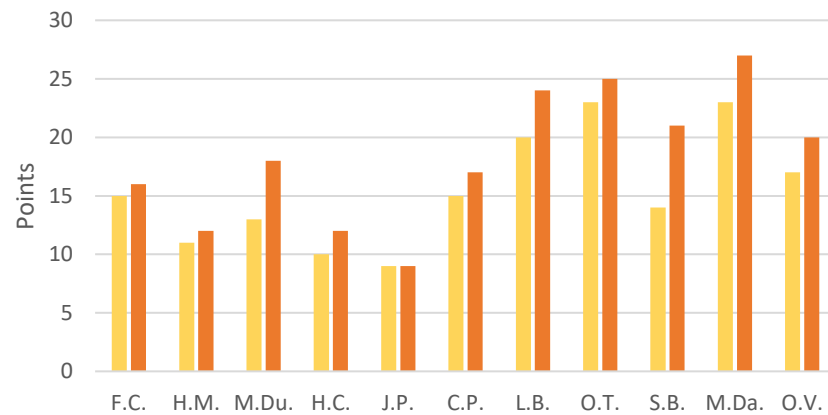
**15000+**

Over **15000** home users use Bobo in their homes



# Clinical trials

## The "Notre-Dame" nursing and care home in Huy, Belgium

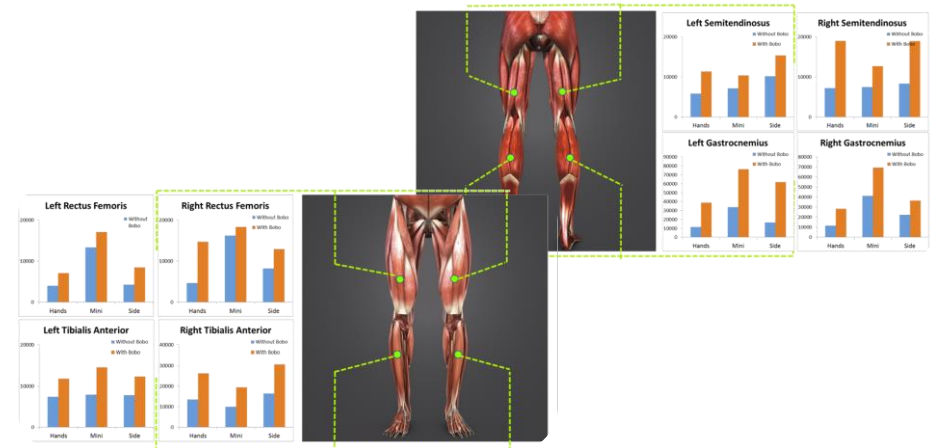


Before using BoBo

After using BoBo

The following indices have improved after one month of bobo intervention among elderly people living in institutions: Walking, balance, fear of falling, quality of life, Tinetti, TM6, and BBS.

## Hadassah University Hospital, Israel



Without BoBo feedback

With BoBo feedback

Using the bobo increases lower limb muscles' activity compared to using a standard balance training tool

# Clinical trials



Here are 2 interesting studies–

the first one (on the left) took place in the nort e dame nursing and care home in Belgium and parameters of walking and balance of elderly people in institutions were tested before and after a one month intervention program with bobo.

The following indices have improved:

Walking, balance, fear of falling, quality of life, Tinetti, TM6, and BBS

Next slides cover the second clinical trial - -

## Hadassah University Hospital. Jerusalem, Israel.

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The purpose of this study is to demonstrate the correlation between variety of balance exercise protocols, with and without using bobo, and the specific muscles activation in each protocol, using a wireless EMG sensors on the main 4 muscle groups of the lower limbs.

# Study Design: Exercises

**Mini-Squats**



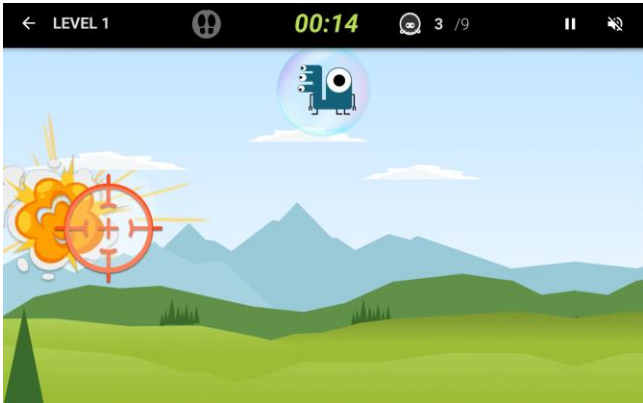
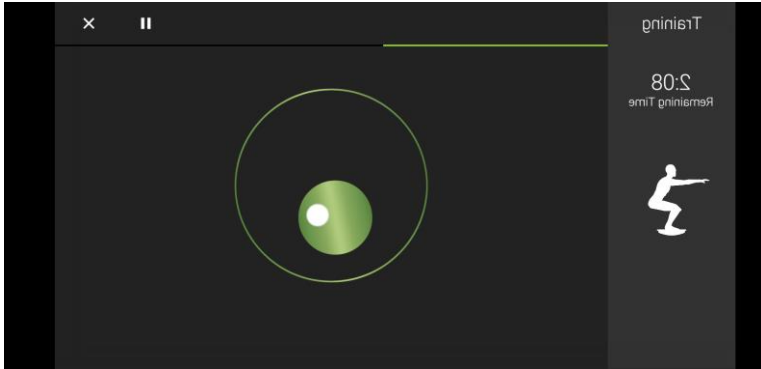
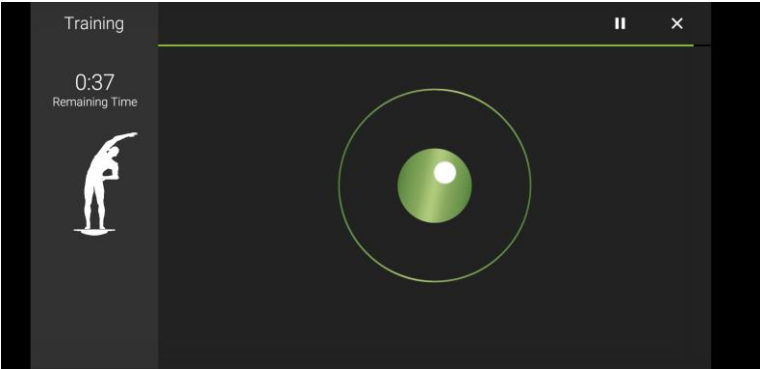
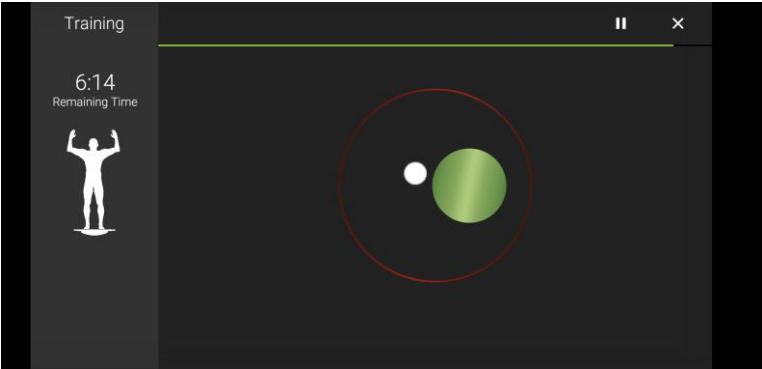
**Side flexions**



**Hands up and down**

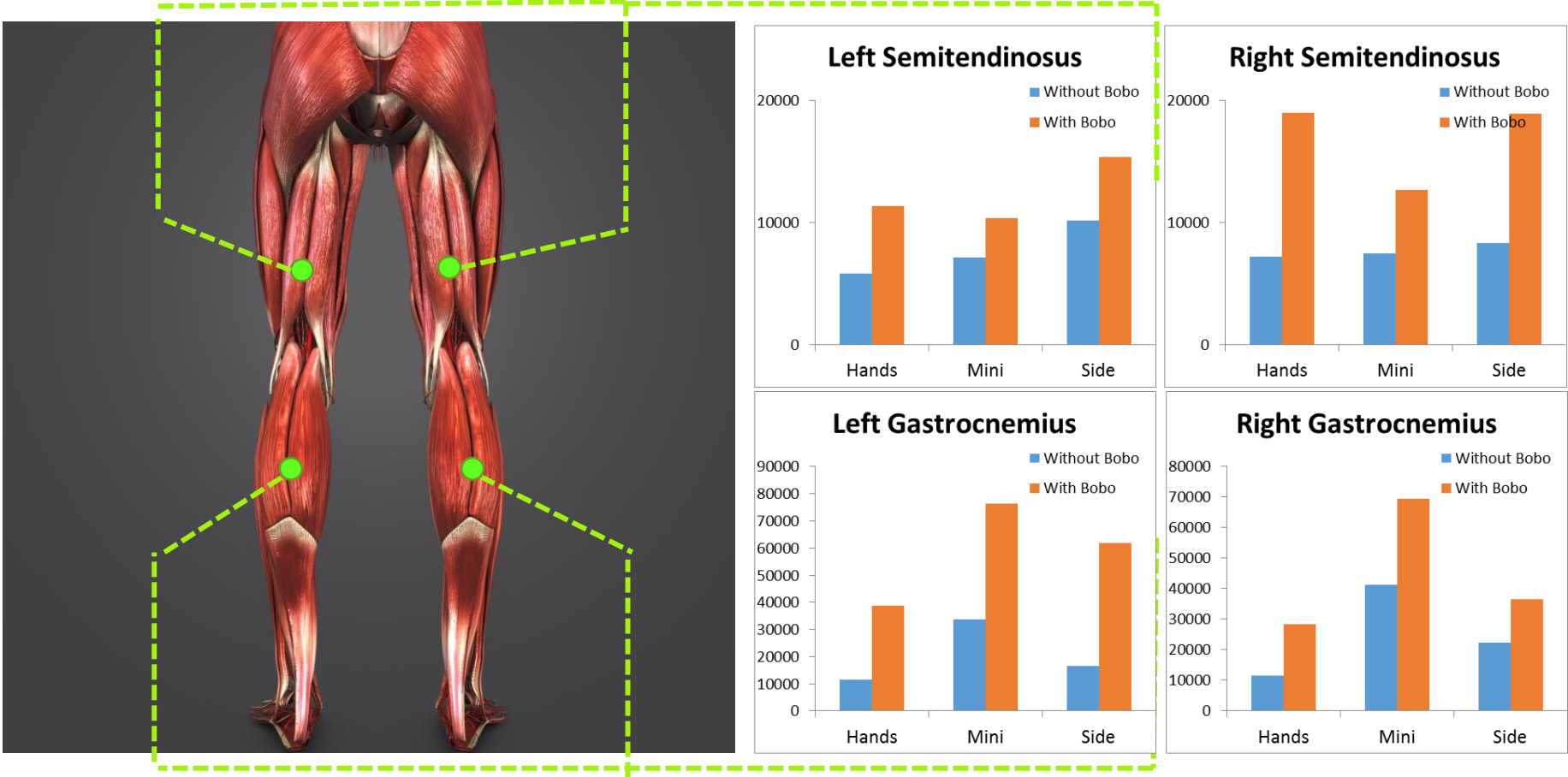


# Study Design: Software

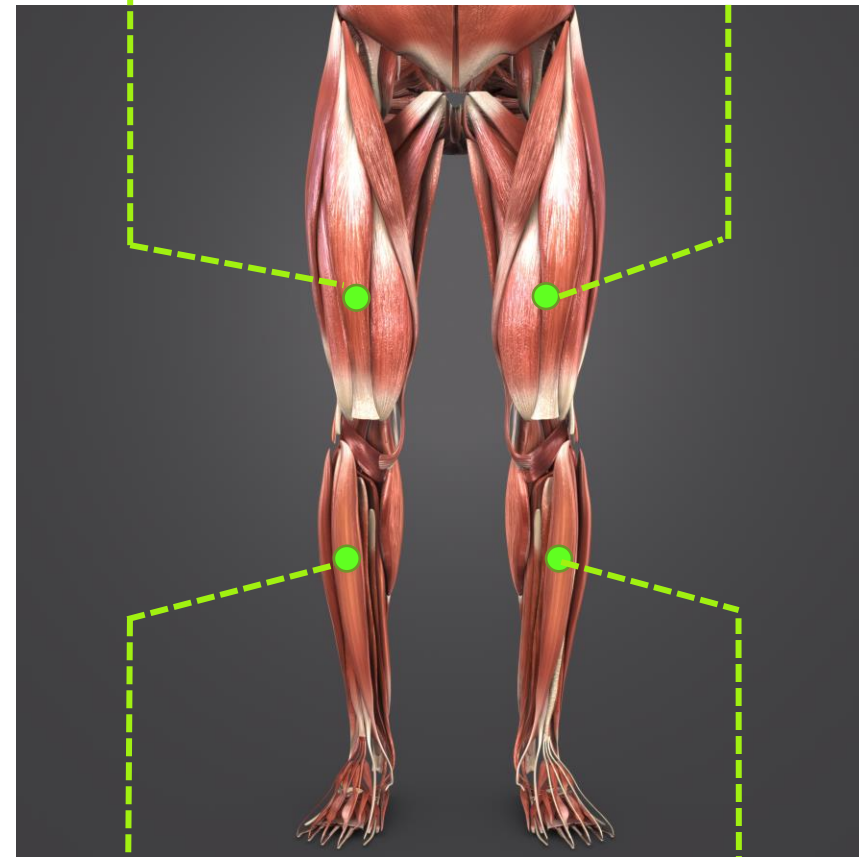
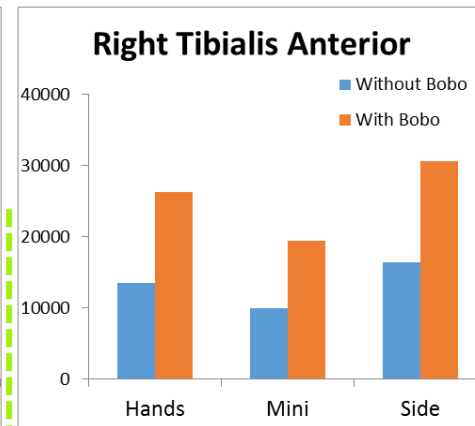
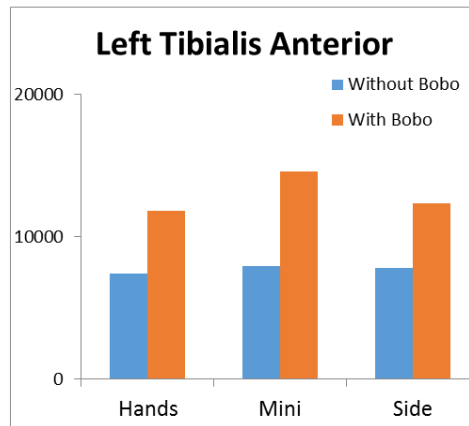
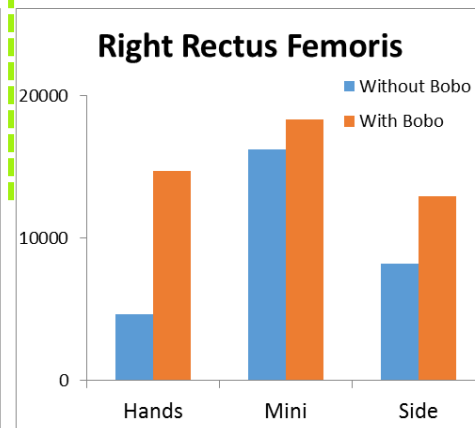
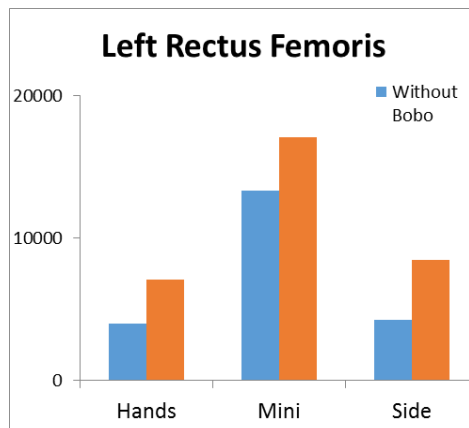




# Outcomes: Back



# Outcomes: Front



# Conclusions

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The correlation that was found, and the specific muscles activation in each protocol, indicates that:

1. The lower limb muscles activities are higher while using the bobo than using a standard balance training tool.
2. The quality and the effectiveness of the workout were improved.
3. Connecting real-time biofeedback to the training is effective.



**Thank You!**