THE Port 2016 – Pier58

Music and Gaming for Physiotherapy:

Introducing

SoPhy (& HaPhy)

Our problem

It is a challenge to stick to your physiotherapy program…

- Boredom
- Lack of feedback
- Social Isolation

… but physiotherapy is the one of the most powerful tools for physical health.

Our solution

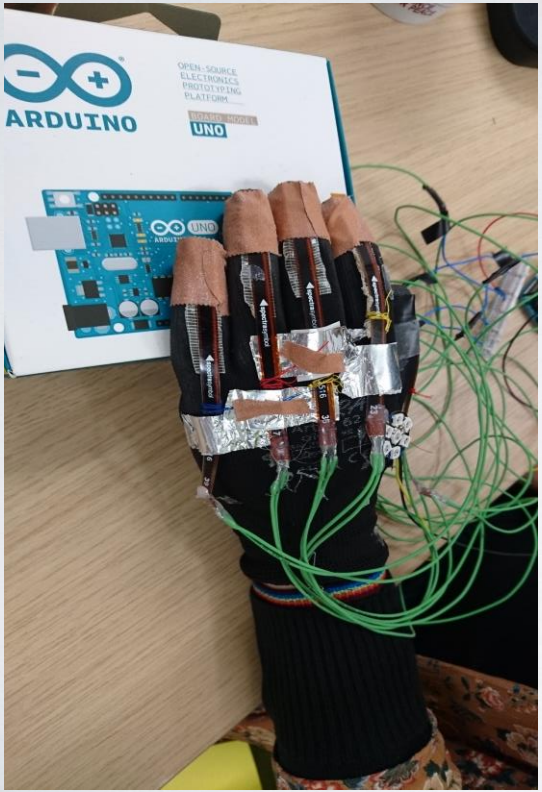
Develop:

- **SoPhy:** A glove that converts your movements into music
- **HaPhy:** A smart ball that provides haptic feedback, and sound

Why?

- Hacking physiotherapy to promote quality of live through the lifespan

SoPhy



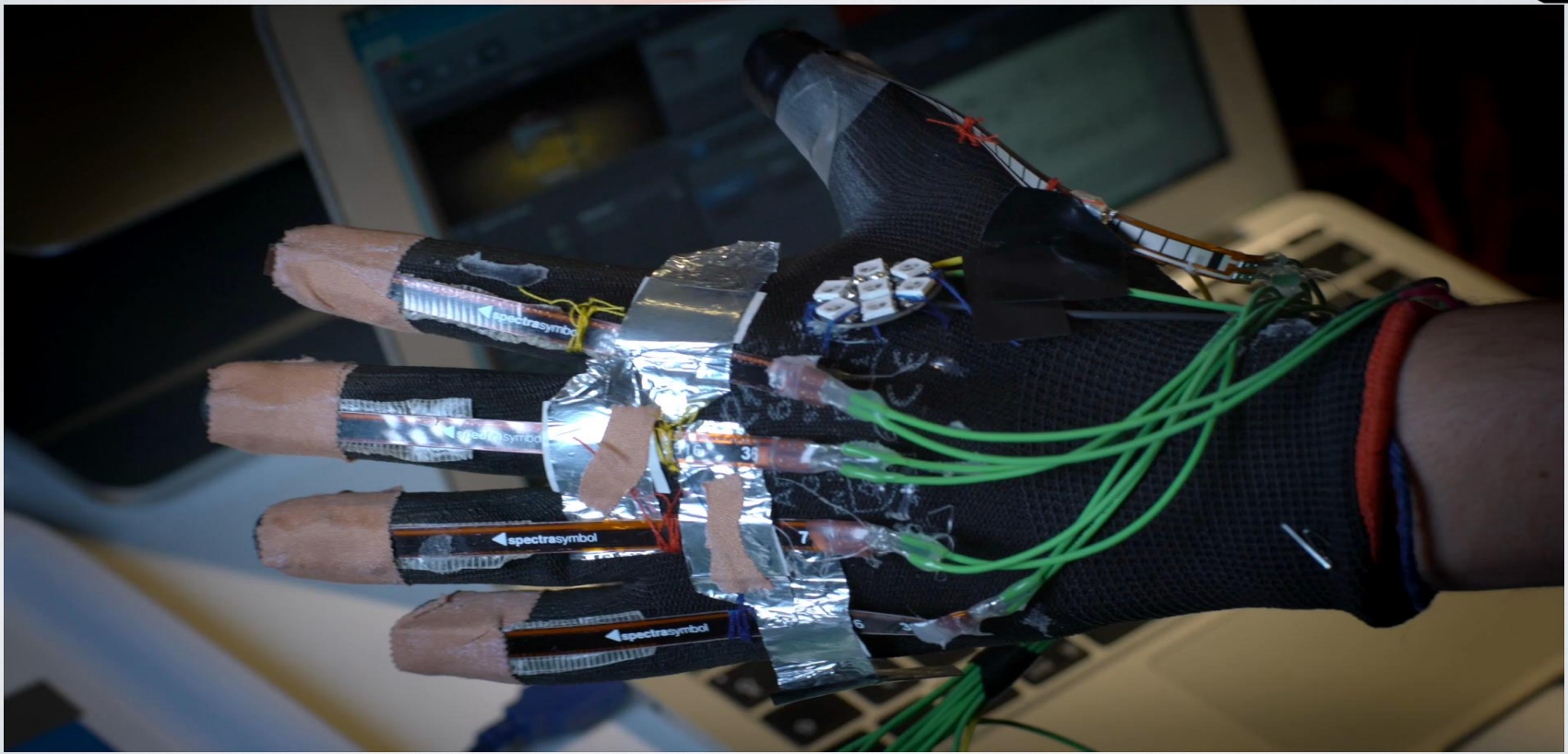
Demo of SoPhy

Turns finger movement into music

- Enhancing the engagement with the exercise through art
- Real-time feedback and track performance over time
- Can informs physiotherapist of patients progress

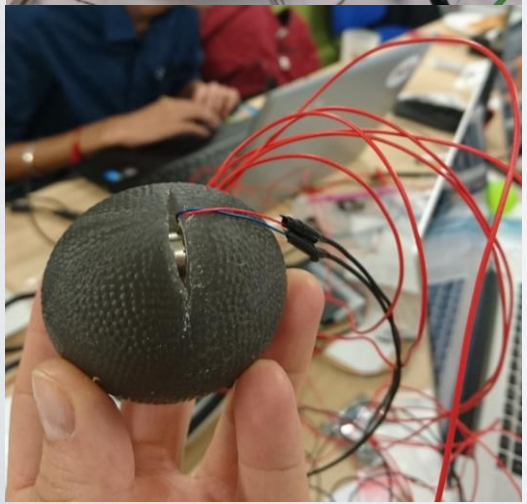
Demo of SoPhy

SoPhy



SoPhy: Development of gamification

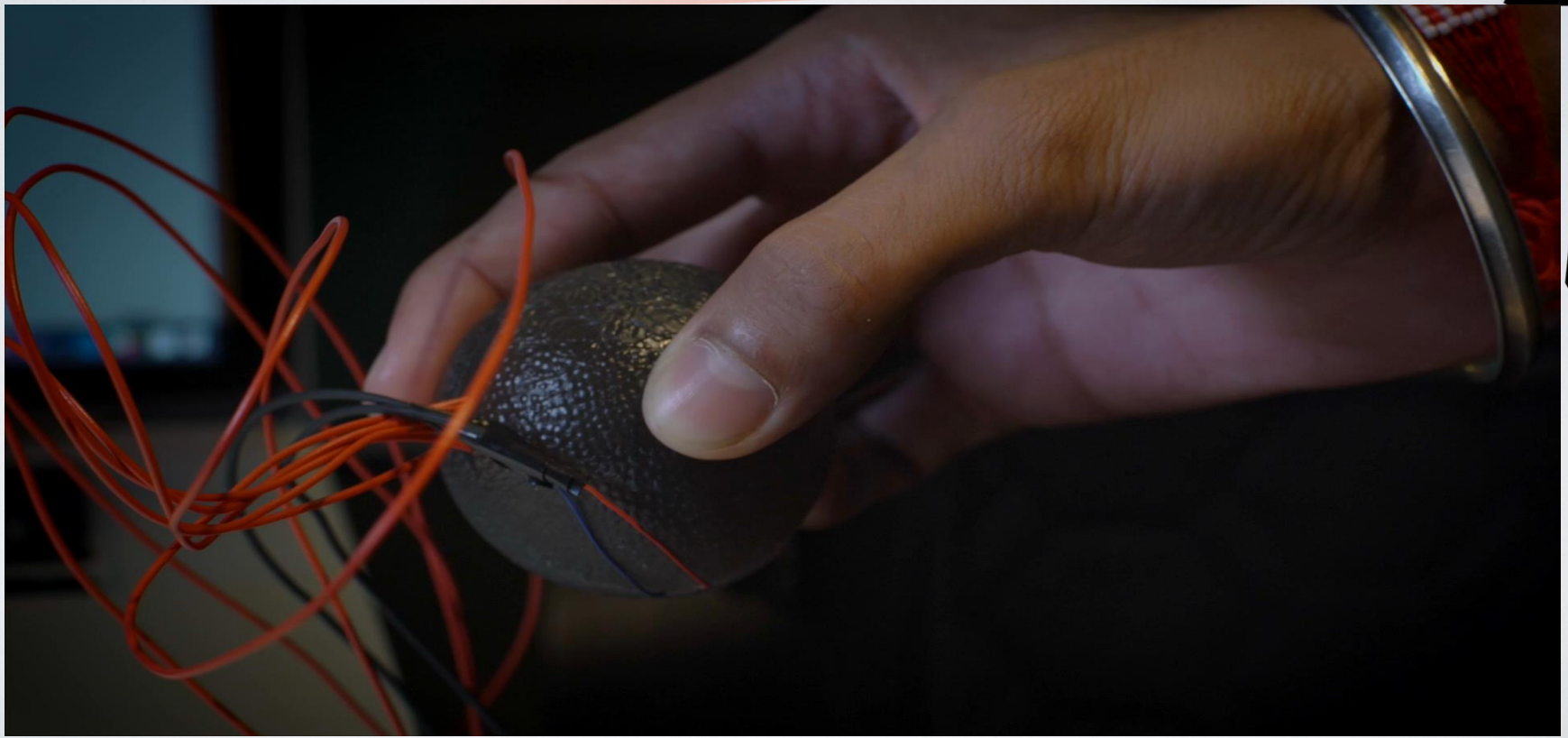
HaPhy



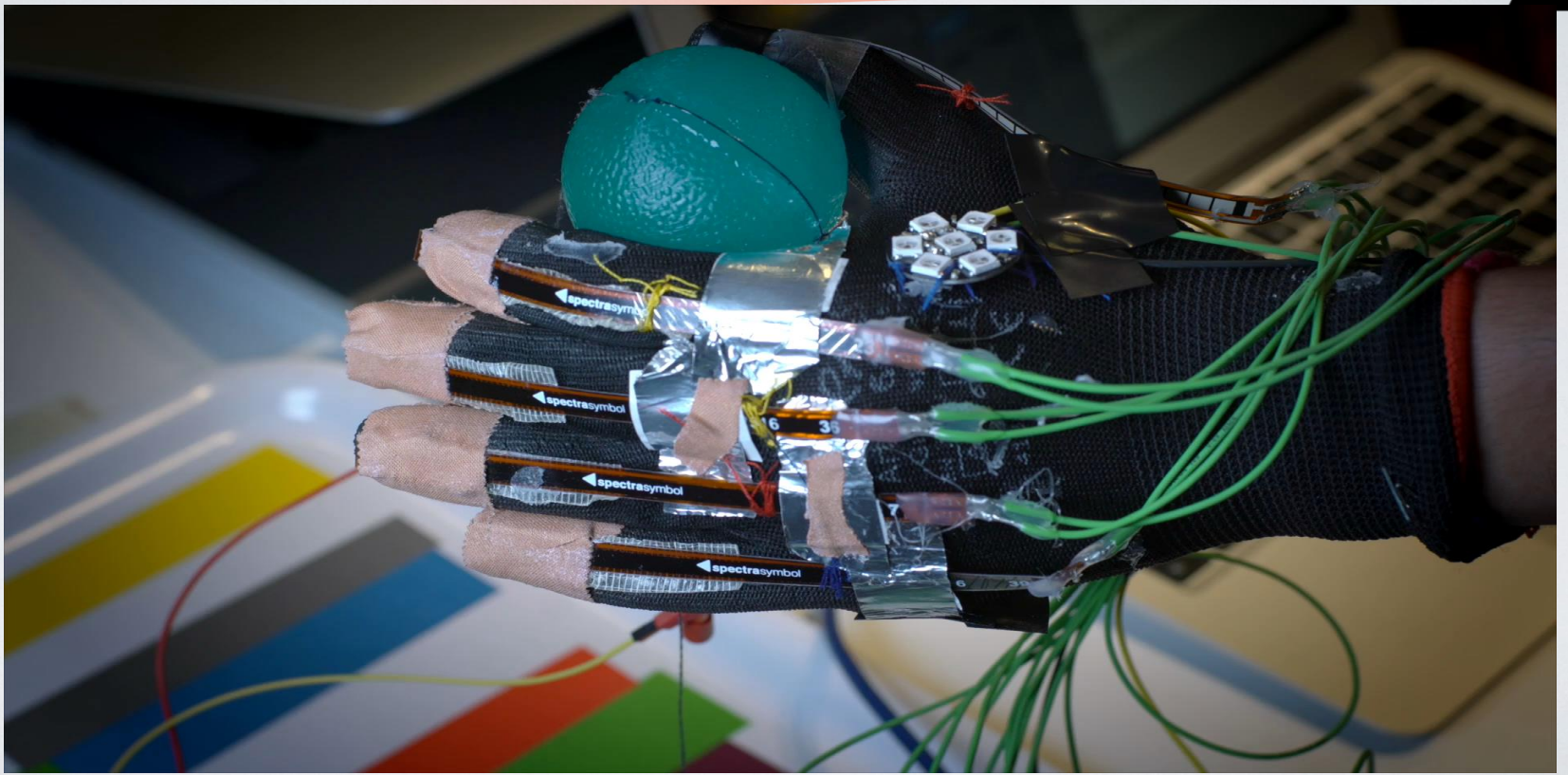
2 haptic “smart balls”

- Measure ball squeezing
- Measure ball orientation
- Provide vibration
- Control volume and tempo of SoPhy

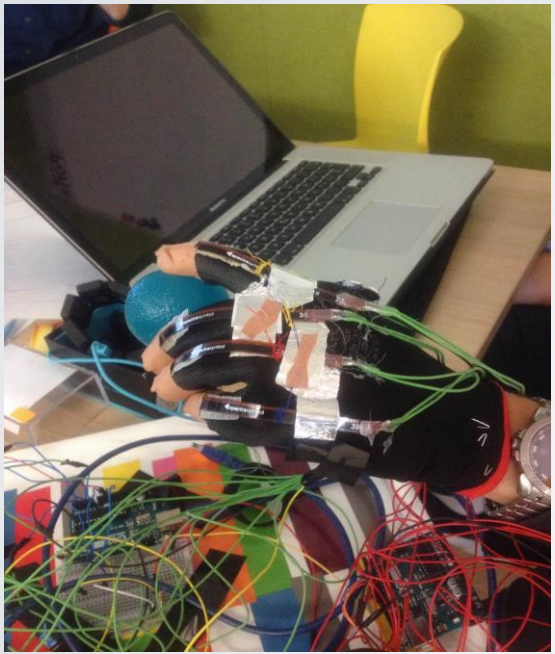
Demo of HaPhy



SoPhy & HaPhy: The final protoype



Sonification and Gamification for Physiotherapy



- Technology and art to revolutionise physiotherapy
- Creating music from movements and gamifying experiences
- Providing smart physiotherapy at home and in remote places around the world

The Future…

- Upgrade to a cheap, mobile self contained system
- Networking and machine learning to provide physiotherapy to isolated communities around the world

Our Journey, and thank you!

END

ADJUSTMENTS & NEW IDEAS

SoPhy and HaPhy

UPGRADE

FINAL GOAL

Working prototype

Develop:

- SoPhy: Convert Movements in Music
- HaPhy: Haptic feedback from a smart bal

Why?

- Revolutionize physiotherapy

AND…

…LOOKING FORWARD TO MORE FUN!