

SOUNDBEAM®

the musical instrument everybody can play



Reho+medical

www.soundbeam.co.uk

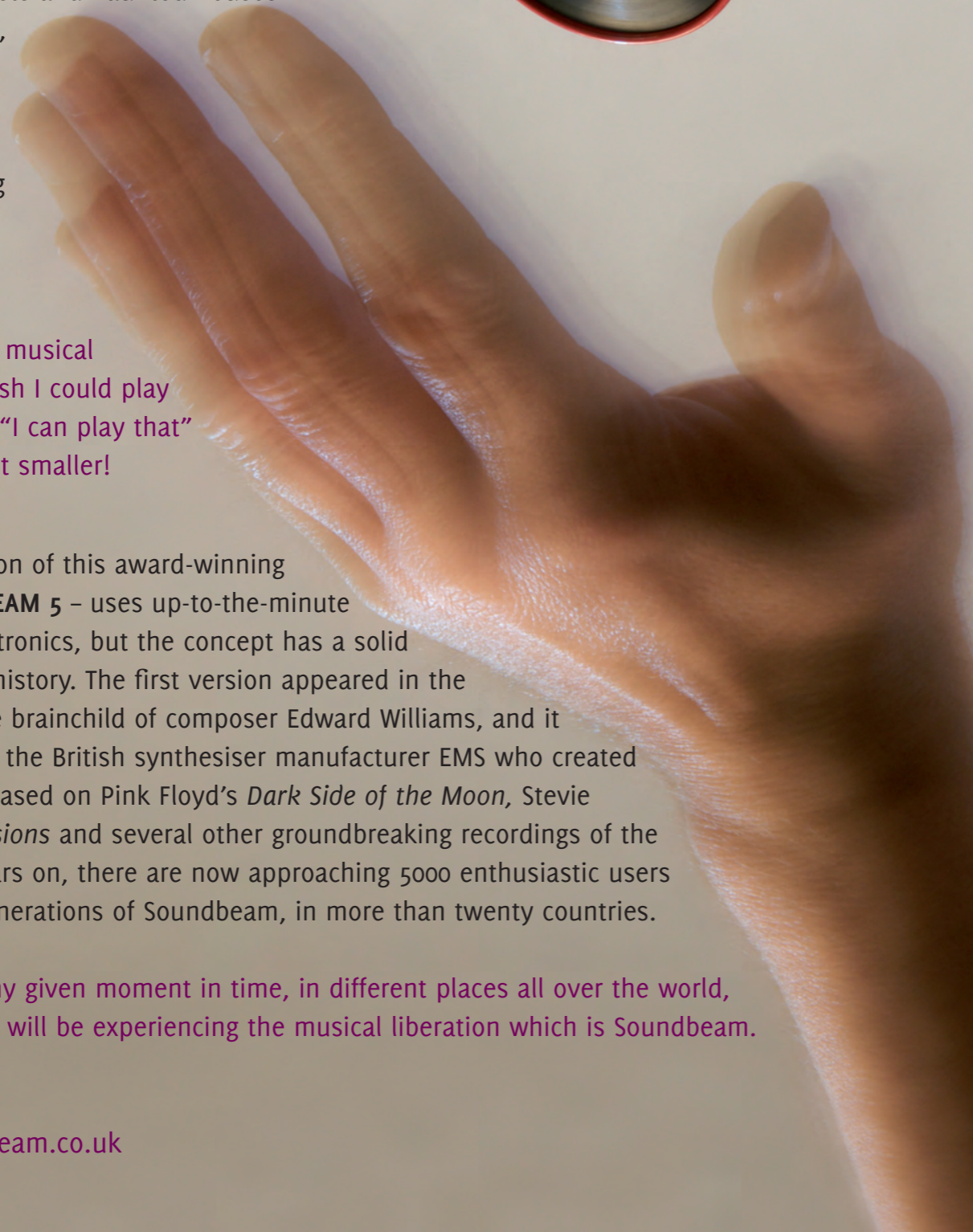
WHAT IS SOUNDBEAM?

It's an amazing and unique musical instrument which uses motion sensors and switches to translate body movements into music and sound. You don't have to wear special gloves, operate a controller, or wave a wand or bat in the air. Simply move in a way that is comfortable for you and the machine will do the rest. As you learn how different movement qualities can shape and control the virtual orchestras, rock groups, jazz bands, circuses, rainforests and haunted houses at your fingertips, you can create musical pieces and soundscapes of ever increasing sophistication and subtlety.

The gap between musical imagination "I wish I could play that" and reality "I can play that" suddenly got a lot smaller!

The current version of this award-winning device – **SOUNDBEAM 5** – uses up-to-the-minute 21st century electronics, but the concept has a solid and respectable history. The first version appeared in the mid-1980's as the brainchild of composer Edward Williams, and it was produced by the British synthesiser manufacturer EMS who created the VCS3 – showcased on Pink Floyd's *Dark Side of the Moon*, Stevie Wonder's *Innervisions* and several other groundbreaking recordings of the time. Over 25 years on, there are now approaching 5000 enthusiastic users of the various generations of Soundbeam, in more than twenty countries.

Statistically, at any given moment in time, in different places all over the world, dozens of people will be experiencing the musical liberation which is Soundbeam.



SOUNDBEAM IN MUSIC THERAPY AND SPECIAL NEEDS

"...someone's discovered a way for children to make music – even if they can hardly move"

Peter Snow, *Tomorrow's World*, BBC TV

"If you have never seen Soundbeam then you have missed experiencing one of the greatest single technological advances in music for people with disabilities of all time!"

Further Education Resources for Learning

Unlike a lot of resources which are sometimes considered suitable for individuals with special needs, Soundbeam encourages *active* engagement and communication, and the sensitivity of the interface makes this possible – even for individuals with significant physical or cognitive challenges.

It has become the 'must have' resource for music therapists, liberating participants from both the expressive limitations and the potential physical challenges of more traditional percussion-based approaches. In special education too, teachers consistently comment on the 'unlocking' potential of Soundbeam: the revelatory changes in behaviour, mood, engagement

and capacity to learn which can be seen when children with special needs are given something they *can* do.

Soundbeam has been extensively evaluated and documented across a wide range of disability and age, from very young children at the most profound end of the disability spectrum, to adults approaching the end of life and facing the challenges of dementia and affective conditions.

Contact us for a full bibliography and reference list including details of scholarly articles, resource manuals, CDs and DVDs showcasing the outstanding work that has been done by the enthusiastic global community of Soundbeam users.



"...makes learning come to life...love this resource... fantastic...a super bit of kit..." Teachers TV

SOUNDBEAM IN EDUCATION



Mainstream primary and secondary schools as well as further – and higher-education establishments are increasingly well-represented amongst Soundbeam's ever expanding user base.

Unlike some software-based educational applications which involve individual students interacting primarily with a computer, Soundbeam encourages collaborative group activity, and is perfect for classroom-based projects designed to encourage learners to gain an understanding of the essential building blocks of music and to assemble these into something creative and original.

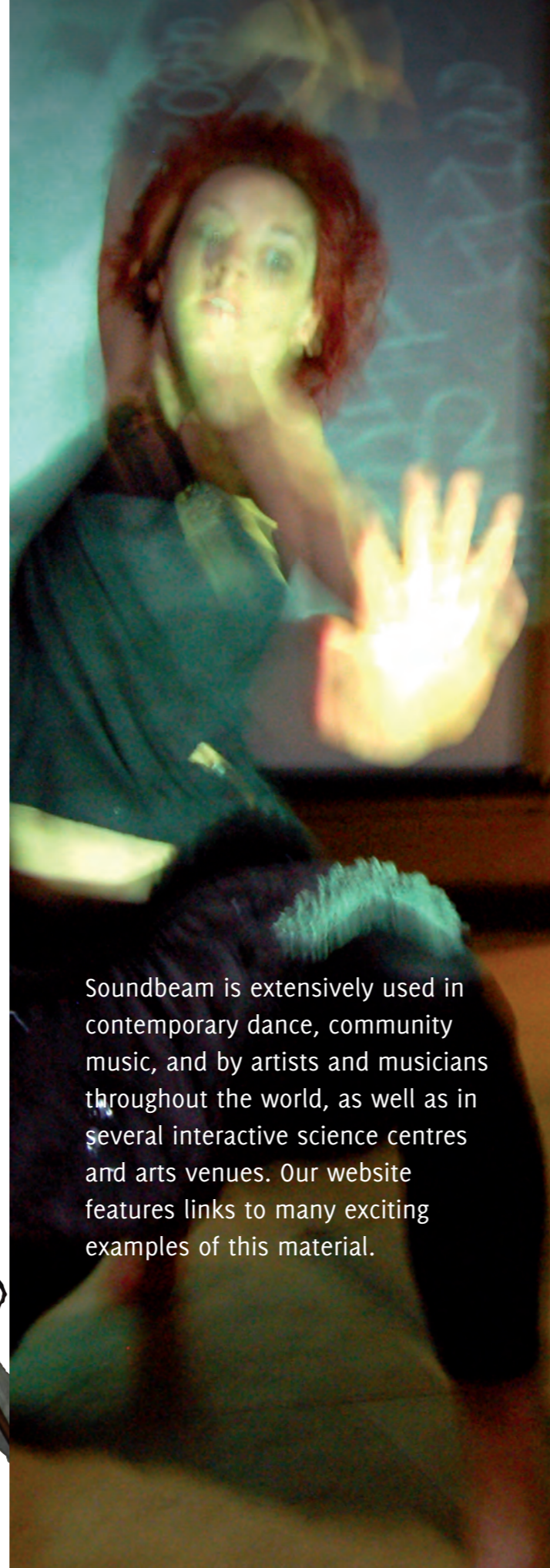
Students' achievements with Soundbeam have received widespread accolades including all-Ireland winners of the Microsoft Imagine Cup and Best Community / Education Award from the British Academy of Composers and Songwriters.

"...provides teachers with new means of developing their pupils' creative imaginations across the curriculum..."
Professor Helen Coll, UCE



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SOUNDBEAM IN PERFORMANCE



Soundbeam is extensively used in contemporary dance, community music, and by artists and musicians throughout the world, as well as in several interactive science centres and arts venues. Our website features links to many exciting examples of this material.

SOUNDBEAM TRAINING

"...if only all the equipment we bought came with a course like this!"
Nina Gerard, West of England School



The Soundbeam Project team is able to offer a broad menu of training options to existing and prospective users of the Soundbeam system, but it's not compulsory! Many people find the interface easy and intuitive and get along very happily without additional support, but the opportunity to receive a methodical and structured induction into the machine's myriad possibilities, to pick up from the best of good practice over the past 20 years, and to hear from expert practitioners and researchers, is a popular one.

There's a wide menu of options available, from a one-hour on-site 'getting you started' workshop to our ever-popular three-day *Soundability* residential course: a training model so successful that it has now been exported to Russia, the USA, Australia and the Far East. It's also been the crucible for several excellent independent Soundbeam training organisations within the UK. Unlimited free telephone and email technical support is also available if required.

"inspirational...the feedback about the training session from the SEN schools was positive beyond belief!"

Judy Manning, Herts Music Service

SOUNDBEAM PRODUCTS

Launched in 2010, **SOUNDBEAM 5** represents everything that was great about its predecessors and incorporates several features that users consistently requested over the years. There's massively less connecting up to do than before, because the machine contains all the separate devices you might need inside the one box: a synthesiser, a sampler, an amplifier/mixer, a session recorder and a mini-keyboard, as well as the usual Soundbeam features you'd expect along with some exciting enhancements.

SOUNDBEAM 5

- 128 Soundsets (combinations of music or theme-based sounds for up to four beams and eight switches).
- Internal synthesiser (256 musical instruments/Sounds)
- On-board sampler/session recorder
- Micro SD card slot.
- Switch and Beam buttons allow parameters to be easily assigned to each sensor. These buttons also function as a piano-type keyboard when the 'record note sequence' menu is enabled.
- Adjustable Beam range.
- Cyclic Play allowing for accurate sequential rendition of melodies and chord progressions.
- MIDI IN and OUT for connection to external hardware and software devices.
- On-board amplifier with volume, reverb, treble, bass and balance with separate graphic level setting available for each beam and switch.
- USB port for software upgrades and connection to audio / visual software.



WIRELESS SWITCHES FOR SOUNDBEAM 5

These colourful, robust, sensitive, versatile, tactile switches communicate wirelessly with Soundbeam5 and have an active range of 20metres (line of sight).

Ideal for solo work and for group music making or story based activities, these switches can be moved around, shared and repositioned easily – at last it's goodbye to all those wires!



SOUNDBOX was originally designed so that hearing-impaired students in special schools would not be left out of the Soundbeam experience. It allows the user to feel the sound generated by Soundbeam (or simply from CDs or other audio sources) as pleasurable and relaxing physical vibration. Individuals with challenging behaviours can also be significantly calmed in this way, and the music therapy literature lists numerous syndromes and conditions which are amenable to 'vibroacoustic therapy'. Soundbox is easy to use (simply increase or decrease the volume), and virtually indestructible.

"...I use it every day. For many students who are hyperactive Soundbox relaxes them and they are able to attend throughout the whole class... they love to experience music in this way"

Bonnie Arpin
Crotched Mountain School, New Hampshire USA.



“The possibility of doing anything spontaneously is not often given to a disabled person ...

Soundbeam has the capacity to let me draw music from it simply by waving my arms ... and thus forget, for a few blissful minutes, the physical disability which has taken up far too much space in my life and the lives of others like me. I can say that for me it is indeed **pure magic.**”

Chris Lees – Soundbeam musician



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SOUNDBOX

MINIBOX

SOUNDCHAIR

SOUNDBED

"The Soundbed has something to offer children whatever their sensory disability."
Leighton Reed, Royal School for the Deaf, Manchester.



The whole human body is receptive to sound, not just the ears. It's increasingly clear that the experience of *feeling* sound - rather than simply *hearing* it - has important therapeutic implications across a wide spectrum of conditions, both physical and behavioural.

Soundbed, Soundchair, Soundbox and **Minibox** are vibroacoustic devices designed to deliver the

physical vibrations of music to the body, in ways which can be both healing and profoundly satisfying.

Combining the sensation of musical vibration in this way with what is heard from speakers or high quality headphones, gives a feeling of total immersion in the music, offering a powerful sensory and aesthetic experience.

The music can either be actively created - using Soundbeam to control a sound module or keyboard (playing along, perhaps, with recorded music) - or simply a selection of the user's favourite music on tape or CD.



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PRODUCTS INCLUDE

SOUNDBEAM • SWITCHBOX • SOUNDBED •
SOUNDCHAIR • SOUNDBOX • MINIBOX •
VIDEOS, RECORDINGS AND PUBLICATIONS •
COURSES AND WORKSHOPS • EDUCATION •
INSTALLATIONS • PERFORMANCE •

SOUNDBEAM[®]
is a Best Social Inventions award winner.

Soundbed, Soundchair, Soundbox and **Minibox** can also be used for Vibroacoustic Therapy, a newly emerging technique in which relaxing music is combined with pulsed low frequency sine tones.

Research has shown this therapy to be effective in treating the symptoms of various conditions – cystic fibrosis (Skille, Wigram and Weekes, 1989), rheumatoid arthritis (Chesky et al, 1992), reducing muscle tone and increasing range of movement in people with spasticity (Wigram, 1997). Case studies and anecdotal evidence have reported that symptoms of asthma and constipation can also be relieved by vibroacoustic therapy (Skille, 1991).



- *“Originally we bought the Soundbox as just another piece of equipment for our Sensory Room but we’re so pleased with it that we’re designing a whole new Sound Room, with the Soundbox as its main attraction.”*
 - Gary Warrington, Thames Valley Adventure Playground Maidenhead, England.
- *“The Soundbed has provided a natural extension within my own work in exploring music /communication using vibrotactile stimuli...a very useful tool.”*
 - Tony Heyes, Royal National Institute for the Deaf, Poolemead Centre, Bath, England.
- *“I use the Soundbed every day in my music classes. For many students, who are normally quite hyperactive, the Soundbed relaxes them...and they are able to attend throughout the whole class. I also have many students who are hearing impaired, they are able to participate in class more completely because they can feel the music. I also use the Soundbed with teenagers who have various disabilities. They love to experience pop music on the Soundbed”.*
 - Bonnie Arpin, Music Teacher, Crotched Mountain School, New Hampshire, USA.

Technical Specifications

	Dimensions	Weight	Power Handling
Soundbed	1980mm (L) x 860mm (W) x 477mm (H to bed surface) + 280mm (to top of guard rail)	140Kgs	Maximum 40 watts
Soundchair	1950mm (L) x 710mm (W) x 690mm (H) (fully extended with leg-rest up) 630mm (L) x 710mm (W) x 1000mm (H) (back upright with leg-rest down)	30Kgs	Maximum 40 watts
Soundbox	1220mm (L) x 910mm (W) x 140mm (H)	35Kgs	Maximum 40 watts
Minibox	610mm (L) x 610mm (W) x 130 (H)	20Kgs	Maximum 40 watts
Speaker Protection Units	All vibroacoustic devices are fitted with SPUs to prevent damage from overload		

Additional hardware requirements:

Any domestic amplifier can be used to drive the speakers of Soundbed, Soundchair, Soundbox and Minibox, with a second output connected to the recommended ancillary self-powered speakers or headphones.

Sound sources connected to the amplifier can be either a standard MIDI module or keyboard controlled by Soundbeam, a microphone, or an audio tape or CD player.

A sound processor can also be connected between the sound sources and the amplifier.

References:

Chesky, K. S., Rubin, B. and Frische, E. (1992) *The pain relieving effect of Music Vibration on Rheumatoid Arthritis patients as related to just music and placebo.* Utrecht: ISME.

Skille, O. (1991) *Manual of Vibroacoustics.* Levanger, Norway: ISVA Publications.

Skille, O., Wigram, A. and Weekes, L. (1989) Vibroacoustic Therapy: The Therapeutic Effect of Low Frequency Sound on Specific Physical Disorders and Disabilities. *Journal of British Music Therapy.* 3, 6-10.

Wigram, T. (1997) The effect of VA Therapy on multiply handicapped adults with high muscle tone and spasticity. In Wigram, T. and Dileo, C. (Eds.) (1997) *Music Vibration and Health* Cherry Hill, New Jersey: Jeffrey Books.

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