

Top Ten - Accessible and Inclusive Music Instruments and Technology - Part 1

Here at TiME (Technology in Music Education UK) we have put together a list of our Top Ten Accessible and Inclusive Music Instruments. This is just a start, and we will update this list as new products become available.

There are constant developments in the manufacturing and production of musical instruments. With music technology being such a useful tool in this area, it is not surprising that there are quite a few brand-new instruments coming to market using technology. There are also instruments being produced that can be successful adapted for the different needs of musicians, especially those regarded as having Special Education Needs and Disabilities (SEND).

It is worth noting that some of these instruments are a bit higher priced than you might expect. When a company makes a brand-new instrument, the initial set-up and production costs are often high. This is normally due to the limited number of instruments made in their first 'run'. There's often the possibility to hire instruments from your local Music Service or Music Hub, so that is always a possibility.

The revised 'National Plan for Music Education - The power of music to change lives' (June 2022) stated its ambition to give opportunities to all children. This included a big emphasis on those with special education needs and disabilities, ensuring better access to music making, with a very clear message that everyone must be able to participate. This list of instruments may help offer some solutions in this regard.

Please note - All prices listed are RRP, but please do shop around for the best price. Also get in touch with these companies to ask about any special educational discounts that may not appear on their sites.

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https://www.timemusicuk.org

- 1. Arcana Strum
- 2. Cosmo Switch by Filisia
- 3. Dubler 2 (microphone) by Vochlea
- 4. Minirig bluetooth speakers
- 5. ODD Ball
- 6. Odla Music by Kemonia River
- 7. Orba, Orba 2 and Instrument One by Artiphon
- 8. Skoog and Skwitch
- 9. Soundbeam 6
- 10. SUBPAC and Woojar





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1. Arcana Strum

The Arcana Strum was created to emulate the experience of playing a guitar. On one side of the instrument there is a silicone keypad that can be pressed to produce chords and on the other side there is a handle that enables strumming and 'picking' of strings. The strings are haptic giving the player the sensation of the strings vibrating as they are played.

The instrument can be adapted in many ways to meet individual needs such as adjusted for left-handed or right-handed playing, the size, number and angle of the chord pad and keys. There is also a choice of 6 different styles of handles to support wider access. The Arcana is connected to external devices such as iPad, phone app or a DAW to produce the sounds.

The flexibility of the instrument is fantastic and provides a high-quality playing experience with comparable scope for a musician to learn, develop and master playing as a traditional instrument.

Arcana Strum £1,070.00 (Get a 15% discount using the voucher code TiME2022)

https://arcanainstruments.com/product/arcana-instrument/









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2. Cosmo Switch by Filisia

Felisia work at the intersection of health, engineering, and the arts to develop assistive technology devices that can help people of all ages and abilities communicate, learn, play and grow to their fullest potential. They have a dedicated focus on improving access to music through innovative hardware and software design. Their award-winning Cosmo Switch is used in over 30 SEN/D schools to support learners with additional and complex needs.

The Cosmo Switch (also known as a Cosmoid) is an accessible and multi-sensory device that works with any Alternative Augmentative Communication (AAC) software and is a great option for inclusive music activities. The Cosmoid is made of durable material and is a round (5cm radius, 3.5 cm height) touch-sensitive button that connects by Bluetooth with any DAW. Up to six buttons can be connected and each has customisable features such as brightness, colour and touch sensitivity.

The Cosmo switch comes with a dedicated and interactive app, designed for IPad users. This offers an ever-growing selection of activities that motivate learners to develop motor, cognitive and communication skills through play and music. The interactive activities have been specially designed by therapists and special educators to provide engaging and motivating opportunities for learning, creativity, and therapy. Discounts are available for multiple purchases and there is also a subscription model.



https://www.filisia.com

Cosmo Switch £135 (One cosmoid button)

Cosmo Explore £400 (Three cosmoid buttons)

Cosmo Excel £800 (Six cosmoid buttons)





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3. Dubler 2 by Vochlea

The Dubler microphone, along with the Dubler app is a real-time vocal MIDI controller, transforming your voice into any musical instrument. Perfect for creating melodies, drum beats and chord progression even if you are a total beginner - if you can hum, sing, beatbox or whistle than you can compose with the Dubler 2 app.

Since 2020 the team have made significant developments to the technology and the Dubler 2 is a game-changing standalone desktop app that works with all DAWs, and you can now also calibrate your preferred microphone for use.





https://vochlea.com

Dubler Studio Kit £249 Dubler 2 £189 Upgrade from Dubler 1 £59 The Dubler Microphone £60





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4. Minirig

One very good British brand of Bluetooth[®] Speakers is 'Minirig'. They are based in Bristol and have been developing their speakers for over ten years. They produce three different speakers that range in price from the £99.95 (RRP) for the Minirig Mini, through to £139.96 (RRP) for their top selling Minirig 3 and also the MiniSub 3.

The Minirig 3 is the one of the best Bluetooth® speaker for schools. Not only is it portable, with loud (40 watts amp!) high quality sound and incredibly stable, it also has an amazingly long 100 hours of battery life! And if that's not powerful enough, you can link up other minirigs. Recommended in music education by the wonderful Ben Sellers and 'Transformance Music' (www.transformancemusic.org).

They use recycled packaging, biodegradable plastics and will repair any damaged Minirig from as little £10 via their excellent UK Customer Service Team. More info at www.minirigs.co.uk and for Educational Discounts, please email support@minirigs.co.uk.



https://minirigs.co.uk

Minirig Mini 2 £99.95 Minirig 3 £139.96 Minirig Sub 3 £139.96







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5. ODD Ball

As seen on the TV Gadget Show, this is described as 'A playful musical instrument in the form of a bouncy ball'. In fact, just to turn it on, you bounce it on the floor. It's got a silicon outer layer with a super strong protective core, making it very student proof! You make sounds by pairing it with a mobile phone app (iOS or Android) via Bluetooth. From here you can change the instruments (there's 100's!) and play along with a variety of backing tracks. You can also change the pitch of a note or volume by altering how hard you bounce or tap, slap the ball. Then you can record and play your performance.

There are lots of different instruments from all genres, including Disco, Grime, HipHop, Rock, Arcade and more. If you have more than one ball (and they come in Punch (pink), Turquoise, Black or Grey), you can connect them and choose a different sound for each ball or record and sample any sound to build a completely unique track.

I'm sure there are many ways in which this could be incorporated into any classroom, be it Primary or Secondary and especially SEND. It's also a MIDI device, so it can be linked up with any DAW! The ODD Ball is already set to expand on its existing features that will make it even more interactive. For more info, please check out oddballism.com RRP £89 but contact the UK ODD for educational pricing.



https://oddballism.com

One ODD Ball - £99.00 ODD Ball Double Pack - £198 ODD Ball Triple Pack - £297







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6. Odla Music by Kemonia River

Odla Music is an innovative music technology company, committed to making digital music writing accessible to everyone. Launched in 2019, the Odla keyboard is a notation interface built for writing digital notation and is compatible with MuseScore and Dorico 4.

There are two versions available and the Odla for blind or visually impaired users contains additional features that enable all musicians and composers to navigate the keyboard and the chosen notation software. The keyboard is tactile with raised buttons and staff lines, logically arranged keys, and a customisable voice over function to support orientation and reading of the digital score.



https://odlamusic.com/en/

Odla E449 Odla for Blind Users E999





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7. Orba, Orba 2 and Instrument One by Artiphon

Made by Artiphon (the same guys behind the 'Instrument 1' MIDI Controller) the Orba was a highlight at the big American NAMM Music show back in January 2020. The Orba is a musical instrument 'designed for your hands', and in size, no bigger than half an orange, and it's a thing of wonder! It's a synth, a looper and MIDI controller that lets you instantly create songs with intuitive gestures like tapping, sliding, shaking and waving. It has a built-in speaker and headphone input that you can also use for speakers/amps, and you can make up loops in four parts by layering drums, bass, chords and a lead part. It can also use Bluetooth MIDI or USB to connect to other platforms e.g. DAWS. With 8 velocity sensitive pads and at least 10 different gesture controls, there are lots of different ways you can make music.

The Orba 2 is the follow-up to Artiphon's Orba 1, an award-winning synth, looper, and controller. Orba 2 has everything the original has, but with multiple ground-breaking upgrades. Now, you can play any sound you wish with its unique sample engine. Listen through the built-in speaker or plug in to speakers. You can customize your instrument with the Orba App and share your creations with friends.



https://artiphon.com

Orba £99.99 Orba 2 £149.99 Instrument One £340.00





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8. Skoog and Skwitch

The Skoog is so much more than 'just' a musical instrument. The original Skoog was launched in 2008 and the current version has developed to now be a Bluetooth device as well as a MIDI controller and a sampler

The Skoog is a black, rubber cube with coloured circles on five sides, set inside a plastic base. It is extremely tactile, responding to being squeezed in different ways. Depending on how you squeeze and push the Skoog, the sound from a connected iPad change accordingly. The Skoog is very responsive and capable of expressive music making.

The creative possibilities are endless, from controlling the volume of a massive synth sound, controlling how quickly it grows louder (or softer), to manipulating the expressive tones of a string or brass instrument. There is an immediate potential for the Skoog in classroom music making that is extremely exciting and creative. The exploration and playing of an extensive range of timbres and dynamics are now at students' fingertips with literally no barriers such as acquiring instrument technique that might get in the way.



The Skwitch is a clever new music-making gadget & app and 'little brother' of the Skoog, with just one of the 'faces'. It clips straight on an iPhone and uses the onboard sensors to create a one-button musical instrument that is responsive, expressive, and amazingly versatile.

https://skoogmusic.com

Skoog - £179.95 Skwitch – £44.95







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9. Soundbeam 6

The Soundbeam is a British invention, first produced in 1989 some 33 years ago! And the current version (Soundbeam 6) was launched in 2017. For those who may know of the older versions, it is worth having a look at the latest version of Soundbeam and seeing how it has developed into a brilliant piece of kit.

For those new to the Soundbeam, it is an award-winning 'touch free' musical instrument that uses sensors to convert movement into music and sound, a little bit like a Theremin. It gives everyone, young and old, regardless of any impairments or disabilities the access and ability to play music

Soundbeam uses ultrasonic sensors to detect movement - big or small - and translates this into sounds. It comes with pre-loaded 'soundsets' that range from tracks which allow the exploration and performance of different genres - blues, classical, to more improvisational soundscapes and other musical ways of playing. It is completely programmable so that the user can make changes to personalise the soundsets and save them. Soundbeam 6 has a wealth of instruments, backing tracks and sound effects to choose from.

Soundbeam has been most extensively and thoroughly evaluated with children with Severe Learning Difficulties and Profound and Multiple Learning Disabilities. However, the benefits to children and adults with a range of conditions and syndromes including Autism, ADHD, dementia, Down's Syndrome, Rett's Syndrome, depression, Cerebral Palsy, Alzheimer's Disease and challenging behaviours, have also been documented.

The Soundbeam 6 has an easy to use (11.5") touch screen controller that you use to navigate through the many different soundsets, as well as the record and compose functions. You can also use the embedded films to accompany any performance, or to help stimulate creative music making. You use the Soundbeam sensors to 'play' the Soundbeam. These look a little bit like microphones, but pick up any movement within a defined area, which is then translated into musical notes. The Soundbeam switches help in the creation of a piece of music by providing backing tracks and additional sounds.

https://www.soundbeam.co.uk

Soundbeam 6 'Solo - £2,505.00 (one kit)

Soundbeam 6 'Group Kit' - £3,525.00 (2 x beams and 4 x switches)

Soundbeam 6 'Big Band' - £4,595.00 (4 x beams and 8 x switches)







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10. SUBPAC and Woojar

Haptic wearables are becoming increasingly popular and there are now several companies producing haptic products. These are of course excellent for those with hearing impediments, but it is also worth considering how else they could be adapted for use for students with other SEN/D challenges.

The SUBPAC looks like a cool rucksack and is a tactile audio system that provides a highresolution immersive experience. It quietly and accurately transfers deep bass frequencies to create an immersive, physical, full-body experience. There are three layers of immersion: haptic, interoception and bone conduction.

SUBPAC's tactile audio solutions were initially designed to enable music producers to optimize the bass frequency spectrum in their music. By reproducing the physical dimension of sound, musicians and their fans were finally able to FEEL music in its entirety without increasing volume or even requiring headphones.



