Introduction to Soundbeam 6

1. **Introduction – checking previous knowledge**
   
   Begin the session by checking if your trainees have used a soundbeam before. Try and get anybody that hasn’t used it to get hands on and use the equipment in the session – don’t show them yourself – get them to use the equipment.

2. **Explain the benefits of the Soundbeam**
   
   - Soundbeam is an electronic musical system that uses highly sensitive contact-free movement sensors, alongside tactile switches, to provide an accessible interface for users at any level of cognitive or physical ability to play as creative musicians.
   
   - It is simple to use with a touch screen interface, an extensive library of high-quality instrumental and sampled sounds, simplified record and compose functions and pre-loaded musical and themed setups, with linked film adding a visual accompaniment to make it a multi sensory experience.

If you have time and access to the internet this video Demonstration provides a good 6 minute intro:

[https://www.youtube.com/watch?v=ptkluJ_1ElQ](https://www.youtube.com/watch?v=ptkluJ_1ElQ)

3. **Basic controls and operation**
   
   1. Your Soundbeam should be be all setup, but check the speakers and red movement sensors are connected to the main touchscreen unit.

   2. Turn the speaker on (round standalone switch – press to turn on and move in a circular motion clockwise and anticlockwise to adjust volume).

   3. If you want to view the linked video clips as part of your session, connect the HDMI lead from your TV/projector to the main soundbeam unit now, before powering the machine up.

   4. Connect the power and switch the on button (on the back of the unit). Be patient – it does take a few seconds to boot up after pressing the button.

   5. Make sure your switches are turned on by pressing the on button on the
back of each switch:

6. On the home soundset tile page, press the desired tile to load the soundset (or press and hold the small play button to hear a demo of that tile).

7. Move in front of the sensors and press the switches to play that set of sounds. I would recommend start with a sound set that doesn’t use “Cyclic” triggers (see section 4 – how to play for more info of triggers) – try April Blues and Arabian nights.

8. The soundset Play/Edit Screen will allow you to explore, try out (or audition), modify and save the settings for the different beams and switches:

TIP: When you first start - set the beams up so they are low on the mic stands but pointing to the ceiling – you are least likely to get any problems with the (invisible) beams hitting something in it’s path whilst you are setting up.

- TIP: If you have a big group for training you can show the desktop on the projector rather than the video footage; go to settings – administration – select HDMI for desktop.

4. How to play the beams

These tips should help explain how to get the best from playing the beams:
Bitesize Training Programs

- No sound will be triggered by movements within 25cm of the beam, directly in front of the sensor. Get a feel for where the sound starts and stops. You can increase or decrease or move the trigger zone using the slider on the soundset play/edit screen:

  ![Soundset Screenshot](image)

  e.g. you might set a very short zone for someone with very limited movement or a longer zone if you want to explore walking, running, driving a wheelchair through the beams.

  If you have the facility this video is good and shows some SEN children using the beams in different ways: [https://www.youtube.com/watch?v=E5j1SkLmJM&feature=youtu.be](https://www.youtube.com/watch?v=E5j1SkLmJM&feature=youtu.be)

- The beam is directional, like a torch beam – but picturing it like a straight line coming from the sensor will help you play it.
- Melody soundsets (such as old macdonald, over the rainbow, happy birthday) that use cyclic triggers are harder to play and may be more suitable for more experienced or advanced Soundbeam users.
- You probably have 2 beams so they will be plugged into the system to control the top 2 beams on any sound set. If you want to change them to bottom 2 you can unplug the beams in the back of the unit and swap them around. **Be very careful to remove the beams by holding the metal casing (not pulling on the black cable) so as not to damage them.**

  ![Beam Removal Instructions](image)

- You can play the additional beams sounds using the touchscreen if required.

  Ask your delegates to take turns to experiment with some different sound sets and moving the beam zones around. Try and think about different abilities and movements to trigger the beams. Try and avoid the melody sound sets for now so direct them to play one of the following:

  Arabian Nights, Club Time, Cool Street, Endless Fade, English Fields, Heavy Dance, Hip Hop don’t Stop, Lets Dance, Peppermint Corner, Spiral Meditations, and Windy Isles

5. Different trigger modes and playing melodies
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The Soundbeam is very sophisticated and different trigger modes allow the beams to be used in different ways to make music. It is important to understand these modes to be able to play the beams effectively. The main 3 to understand are:

- **Single**: To play a note, break the beam. To play another note, come out of the beam and re-enter it. The note heard will depend on the point along the beam’s path at which the interruption occurs. (You can demonstrate this using Summer Jazz)

- **Multi**: Movement within the beam will trigger a continuous succession of notes with movement towards and away from the sensor. (Demonstrate this using April Blues)

- **Cyclic (single)**: Successive interruptions of the beam, irrespective of where it is interrupted along its path, will play a sequential series of notes or chords in the correct order. (Demonstrate using Happy Birthday) If you get out of order you can reset the soundset so all the beams and switches are ready to start again by pressing the soundset icon on the play/edit soundset screen:

You can also have trigger modes that use “Sustain” where the sound will continue to play even when you move out of the beam. Enter and exit the beam at other points along its path to create a sustaining chord. Use the ‘chord clear’ area directly in front of the sensor to stop the sound. There are modes that used “Clipped” where notes will sound for a fixed duration which is set by adjusting the clip time. Finally you can set the beams to Trigger OFF; this has the effect of muting the sensor and also silences its ‘buzz’.

To see what type of trigger is on a beam, press the beam icon and then select trigger. From here you can view the setting and change it if you think a different type will work better for your user or session:
Ask some delegates to come and experiment changing the trigger mode on the beams for some sound sets and also them to try playing some melodic (cyclic) sound sets:

Christmas, Green Jazz, Happy Birthday, Old Macdonald, Over the Rainbow.

6. Understanding Switches

The switches appear on the soundset screen as the rectangular icons at the bottom of the screen.

- The switches can be set to have different triggers like the beams so they can play either single sounds or sequences of sounds in a single, clipped or sustained way.
- Then can also be latched to turn a backing track on and off or a video clip on and off
• Note the switches themselves have a quarter inch jack input so you can attach a different switch to them (you might need an adapter if your switches have a standard 3.5mm jack terminus [http://www.inclusive.co.uk/switch-adaptors-p5316])
• You will probably have 4 switches. You can play the other four sounds by using the touchscreen.

Like with the beams you can reset cyclic triggers on the switches by pressing and holding the soundset icon:

Demonstrate the switches by using Buena Bristol:

I. Give someone switch 1 to demonstrate starting the video and backing track
II. Give someone switch 2 and let them play along with the backing track. Ask them to guess which instrument it is and what trigger type (Cyclic Single, Clipped or Sustained or just simple on/off). Show them how to view and change the instrument, scale and trigger type.
III. Give someone switch 3. Ask them to have a musical conversation with switch 2 (keep the backing track playing)
IV. Give someone switch 4 - show them how to change the instrument to wooden blocks (Switch 4 – instrument – wooden block). Ask them to play along with the backing track.
V. Get 2 users set up on the beams (e.g one using their feet and one using their head). Get them to join in with the musical conversation (i.e each player takes a turn to play)

7. Creating your own soundset

You can create your own soundsets in the following ways:

• using the pre-recorded sounds and tracks that are already available on the Soundbeam
• record your own sound samples using the microphone (great for using it for sensory stories)
• import audio files
• create your own melodies and note sequences using the “Create new sequence tab”

I. Click on the new icon on the top left hand corner of the home screen.
II. Click on each of beams and switches and choose an instrument, a scale, a trigger type for each one.

III. To record your own sound samples click on the microphone icon on the soundset screen.

Press the round red record button to begin recording and the square button to stop.

IV. You can edit/trim the recording, listen back to it by pressing the play button (or the loop button) and save by pressing the “Save recording” button on the top of the screen. Once you have saved the sample you can select it onto one of your beams of switches. You can also use this function to record a Soundbeam session/performance.

V. To import audio files you also do it via this screen by clicking on the import button.

VI. To create your own melodies or note sequences you go to the scale icon on the main soundset screen:

From here you can create a new sequence by playing the series of notes or chords as required. Once you are happy with your scale, click save scale at the top of the screen. Once saved the new sequence or melody will be available use in the scales menus.

A. Ask a delegate to open the Space sound set. Ask them to play the video (switch 3) and play with the beams to get a feel for that sound set. Now say we want to record a countdown for the space rocket taking off. Get someone to record a sound sample e.g 5,4,3,2,1 Blast off! “ Ask them to save it and then go and assign it to a switch 4. Now get someone to press switch 3 and someone to press switch 4. Get some others to join in with the beams and other switches too.

B. Ask a delegate to open a new sound set and then record a new melody or sequence of notes (a favorite nursery rhyme or a special song they sing at the hospice or do Baa baa Black Sheep (C4C4G4G4A5B5C5G4F4F4E4E4D4D4C4). Save it and then assign that scale to a beam as a cyclic single trigger, with 16 divisions. You can now play the
melody with your Soundbeam. If you are feeling adventurous, try and assign a switch a sheep video to go with it!

C. You can delete any unwanted sample files and scales through the edit menus under the settings icon.

8. Changing the volume and mix of your beams and switches

The mixer screen allows you to change the volume and mute individual switches and beams. It also has a solo function that mutes everything except the selected beam/switch.

You access this screen and functions by clicking on the mixer icon on the main soundset page.
Open a soundset (Two wooden spoons), get everyone playing beams and switches and then experiment changing and muting volumes.

For more information on more advanced features and functions and please visit the Soundbeam website:

https://www.soundbeam.co.uk/soundbeam-6-manual-and-support