

MIDI Innovation Awards

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***Required**

About your entry

Title of your entry *

InterFACE

Describe your entry (up to 1000 characters) *

A face controlled musical instrument that uses only a video camera.

Or, an augmented reality, real-time motion-capture, machine-learning powered, holographic, accessible general MIDI controller and synthesizer.

By piggybacking onto a person's own natural movements, we reduce the complexity required to learn a new instrument and this allow for expressive yet intuitive control with little to no dexterity required.

I've made an interactive prototype that hopefully explains it better than these words have



Describe how it is innovative (up to 500 characters) *

Real-time motion tracking became possible due to innovations in machine learning and improvements in graphics processors.

This software has been designed to be used with the Looking Glass 'Portrait' display - the world's first consumer grade holographic display which gives the visuals extra depth and believability.

By creating a virtual interface with no moving parts or extra hardware, we can use a person's own expressions and movements to control and manipulate hardware, software and data.

What is the most inspiring use of your entry (up to 500 characters)? *

I try to create accessible musical instruments with the lowest barriers to entry - intuitive tools that everybody can play instinctively and have fun too! Currently the only requirement for this one is a mouth, but that could be swapped for eyes or eyebrows! Ultimately, this tool allows *all* sorts of people to create their own sounds and music but the technology can be expanded to control almost anything. This is a great thing for people who cannot play traditional instruments.

Do you have plans for expansion and commercialisation (up to 500 characters)? *

Plans for expansion would be to add more musicality, expression and to create an app that would allow it to run on more device as well as offer retail opportunities via the app stores.



Plans for commercialisation would revolve around monetisation from expansion packs or potentially a pro version or company sponsorship. Currently the only commercial version is for Drake Music Charity for use in their accessible technology centre.

Give examples of how your entry connects with other MIDI devices or software (500 characters) *

Can be used as a controller for other hardware MIDI devices and in duet-mode allows 2 people to independently control individual MIDI channels in real-time together.

In single player mode, the MIDI events currently get broadcast to all channels.

The prototype has only basic note on / note off / pitch bend MIDI interaction but I would like to expand on it. Eye direction currently controls pitch bend on MIDI but stereo panning on the synth but it is totally configurable!

Category: which category does your product belong to? * *

- ☒ Software
- ☒ Video
- ☒ Installation
- ☐ Lighting
- ☒ MIDI controller
- ☒ Synthesizer
- ☒ MIDI I/O
- ☒ Prototype
- ☒ Other



Is your entry a commercialised product? * Please explain

Not currently (I have open sourced it on github)

Do you have a web page or URL describing the entry?

<https://designerzen.github.io/MusicalFace/>

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