*Drift Mirror*
***Artwork***

***Topic: Art***

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***Abstract***
The liminal infrastructure supporting the digital world creates complex but imperceptible electromagnetic fields of oscillation in the physical world; the inner workings of the ubiquitous devices that collect, store and transmit data emit a Byzantine array of inaudible drones, clicks, howls and buzzes all around us. Cruder devices, such as motors, lamps and even the electrical grid itself contribute to this spectral chorus. And though we do not perceive this EMF cacophony directly, our very bodies also emit, absorb, reflect and refract varying kinds of electromagnetic radiation.

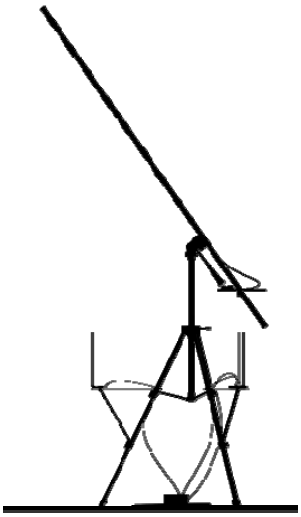

*Figure 1 Left view*

The sound sculpture *Drift Mirror* (currently in development) employs environmental sensors in combination with generative strategies to create an evolving multi-channel soundscape from both live and pre-recorded EMF events. Three microcontrollers monitor electrical field distortions around the sculpture caused by bodies moving in real space—and uses those readings to steer a notional "sound probe" through a cubic volume of virtual space seeded with EMF recordings. When the virtual probe encounters a pocket of sounds, those sounds are collected and played back through an 8-channel speaker array. In parallel, live EMF events captured in real space are also added. As the sounds overlap in time, they

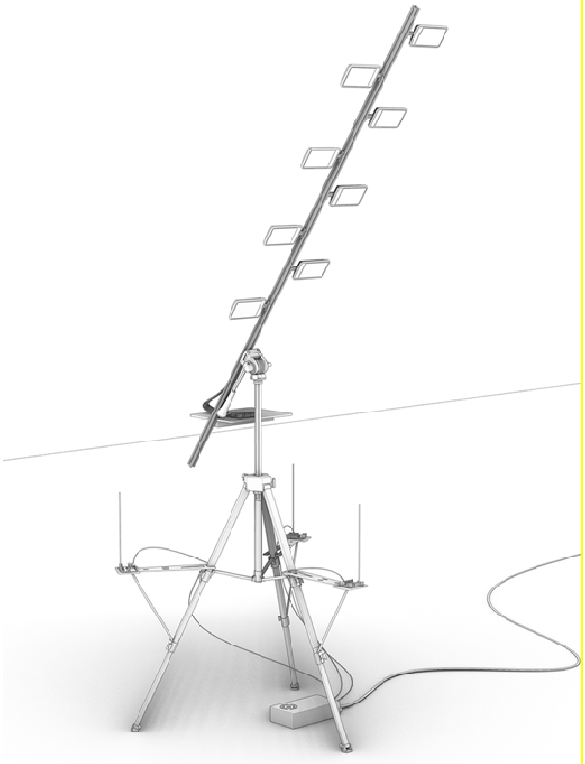

*Figure 2 Perspective view*

mix, generating an ever-changing soundscape as many as 32 layers deep. *Installed dimensions: 2.3 x 1 x 1 meters*

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***Key words:*** Sound, EMF, autonomous art systems, environmental sensing

***Main Reference:***

[1] Chad Eby, "*The Machines Wave Back*", Media-N, Urbana, Illinois, 2019: https://doi.org/10.21900/j.median.v15i1.48