

## *Angry Sparrow*

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Instrumentalists rely on physical gestures such as plucking, bowing, hitting, and blowing air into their instruments in order to produce sound; among tremendous number of human gestures, the body movements employed by musical performers are limited. This compositional project began with the idea of extending the relationship between human gestures and sound by electronic means. From that germinal relationship comes a conception and creation of an electronic device with seven infrared sensors, which accurately detects the performer's various hand movements. Each sensor detects the distance between the performer's hands and itself within a limited range. A micro controller, installed in the device, converts the output voltage from sensors to 12-bit digital values and send them to a software synthesizer, programmed with Max/MSP. The implementation of the synthesizer is relatively simple: it consists of one phase modulator with seven controllable parameters. Though the performance is quasi-improvisational, the overall structure is fixed and implemented in the software. The mapping between inputs from the sensors and synthesis parameters gradually changes according the implemented structure. The performer then interacts with mutating sound responses from the instrument.