Sample work from three MIT students
for
21M.380 Everyday Sound Object Assignment (EX1)
Spring 2015

Student 1

An object I found to have an interesting sound was a plastic ruler. When you hold one end of the ruler on a table so that a portion of it is hanging off and you flick the other end it oscillates, making a cartoon like "twanging" sound as if someone is jumping on a diving board. The oscillations vary depending on how far off the table the ruler is hanging. When it is only a small portion hanging off, the sound dampens very fast and oscillates and a high frequency; when it is the majority of the ruler hanging off the oscillations last longer. My favorite sound was when the ruler was held 19-20cm from the table. Another interesting thing to try was to flick the ruler when it was hanging off the table, then pull it inwards and hear the change in oscillations.

Student 2

The everyday object that I have chosen is a guitar effects pedal. For those unfamiliar with the term, this is a small electronic device that is placed in between a guitarist and amp in order to manipulate the sound with various effects. They can be used with both electric and acoustic guitars (w/ pickups). For example the typical distorted rock guitar sound is commonly associated with distortion pedals. The possible types of these pedals include boosts, distortion, phase, reverb, etc. The metal footswitch on the bottom half body of the pedal produces an extremely satisfying "clicking" sound that provides both audio and tactile feedback to the player when it is pressed.

Student 3

I present a propane torch with an auto-starter and swirl-inducing tip.

The tip swirls the propane as it exits the torch using a set of fins at the very end of the nozzle. The auto-starter button allows for a good deal of control over the rate of flow of the propane. When one modulates the rate of flow over the swirl fins, a wonderful squealing sound is produced.

Press the trigger too hard, the squeal is lost beneath the noise of the combustion. Too soft, and the airflow is not compressed enough by the fins to produce sound. In between these regions, the pitch of the squeal can be adjusted with good control over the button - more airflow produces a higher pitched squeal.

By rapidly introducing fast airflow and then stopping it, one can produce a satisfying "thump" - the rising edge of the squeal stands out sharply.

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