



One to One

One to One is a wall-mounted installation that consists of jars that capture voices and play them back. The goal was to promote fleeting, intimate connections that could be shared with strangers. Like a firefly trapped in a jar, messages become trapped once they are spoken into the jar. When another person comes along to open it, they can release the message after which it is gone forever.

The One to One installation includes 20 jars, each embedded with their own CNC fabricated wooden mount, and a laser cut core that contains a custom made printed circuit board, LEDs, speaker and microphone. When a jar has no message trapped in it, it is dark and the LEDs aren't lit. When a jar has a message trapped inside it, the LEDs light up in a twinkling pattern. In order to leave a message, you open a jar and speak into it. To release a message, open a lit jar and it will play it back.

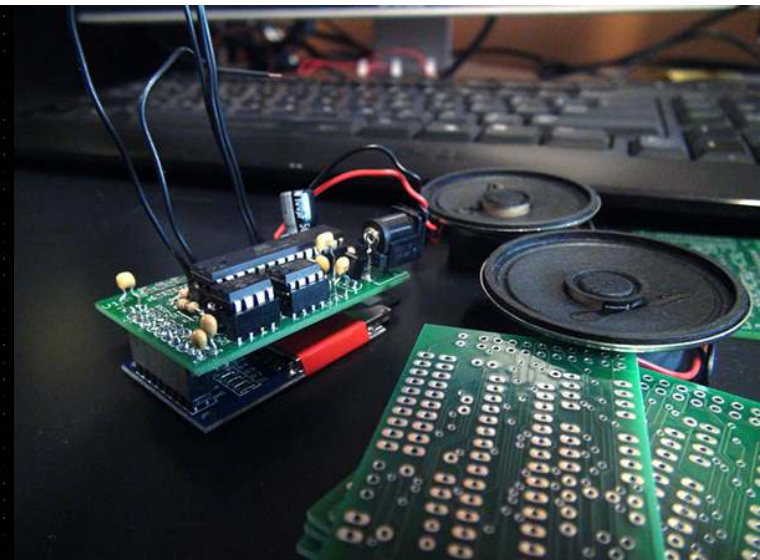
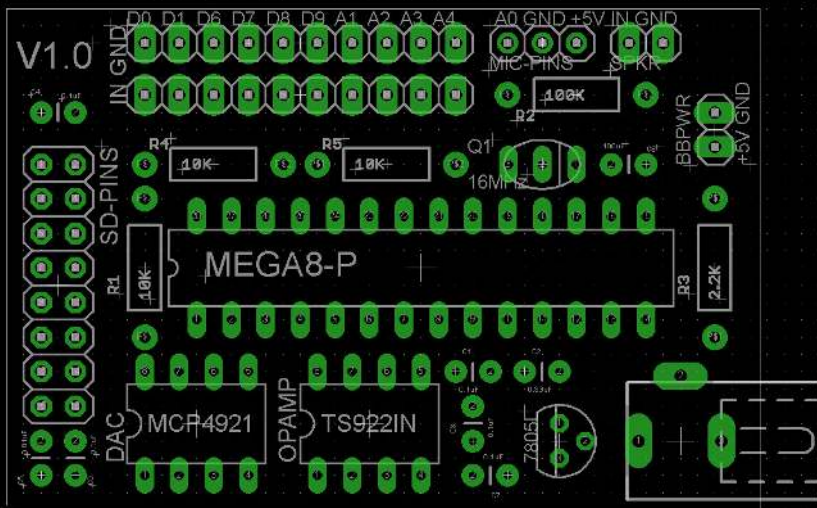


One to One was a collaborative student-pitched project between four people; Anisha Deshmane, Yotam Haimberg, Jason Hsu and myself Elwin Lee. I was responsible for the concept ideation, designing the printed circuit board (PCB), producing the jar internal core structures and fabricating the jar mounts.

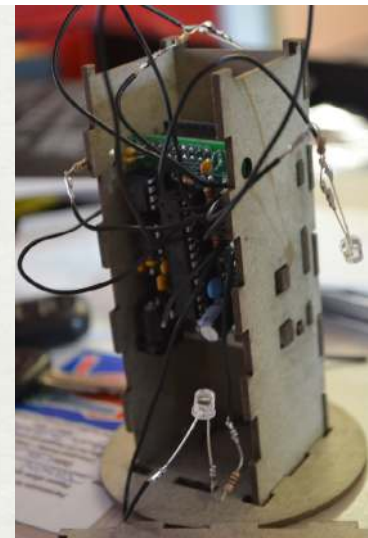
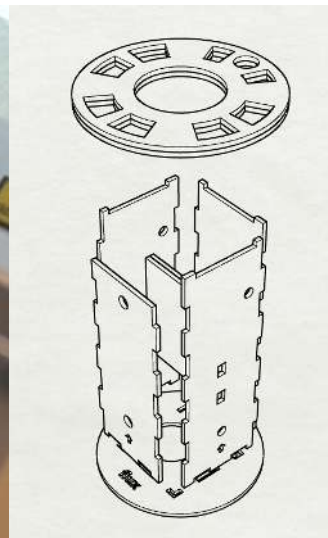
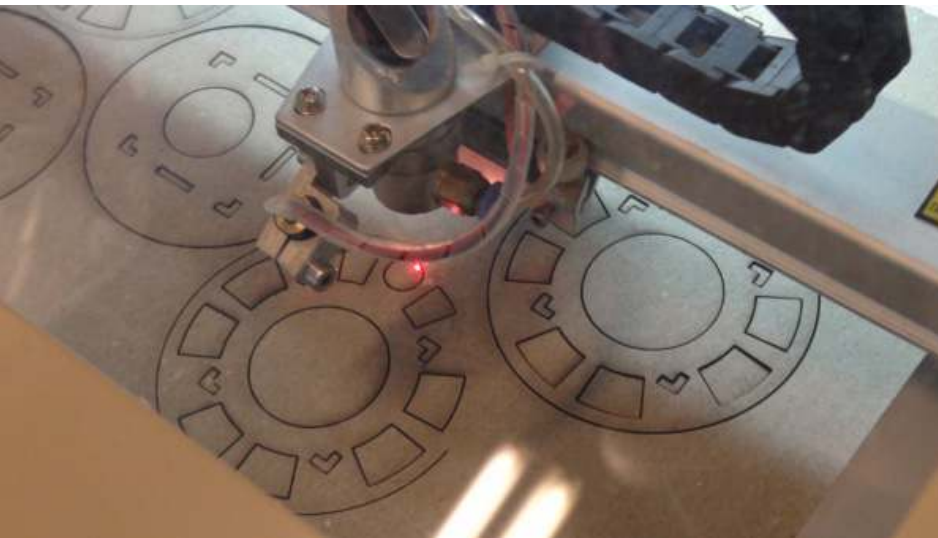
The concept for the jar wall-mounted installation was finalized early in the design process (first sketch). However, the actual design of the jar and its internal and external structure went through several iterations.



The PCB design was created in EAGLE after all the electrical circuits and components were finalized by our engineer. One sample circuit board was ordered to verify the design and circuits before purchasing a total of forty PCBs for the wall installation.



The internal core structure of the jar holds the PCB and all the electrical components needed to record and playback sound. The measurements for the core were carefully designed on paper and further developed in Adobe Illustrator and Rhinoceros 3D. The core is then laser-cut and assembled accordingly. The core design went through extensive design iterations as any small changes in the design resulted in re-cutting the entire core.



The mount is the external structure which encapsulates the jar and was designed to provide support for the construction. It was first modeled in Rhinoceros 3D which was then fabricated using a CNC router in four individual pieces with every piece having a different inner diameter length and angle. After fabrication, the pieces were glued together and manually sanded to perfection before final assembly.



One to One is currently installed in the Entertainment Technology Center at Carnegie Mellon University in Pittsburgh Pennsylvania. Visitors have been responding very well to the installation. Positive, negative and totally random messages have been left behind for other people to hear. People leave messages about their accomplishments and positive influences of the day, notes filled with frustration and angry, funny messages or simply random information. The visitors seemed to enjoy the anonymity and the randomness. There's a sense of excitement when opening a jar. There's no telling what to expect.

