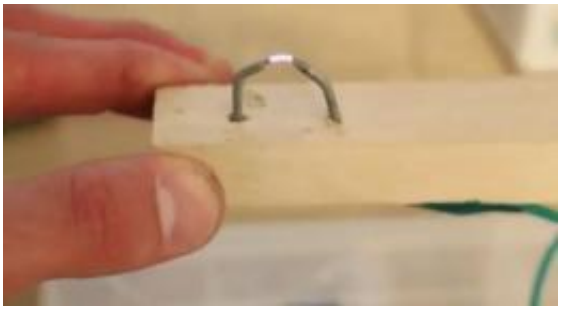
Pledgers step up for plasma speakers

August 22 2011, by Nancy Owano



(PhysOrg.com) -- A Seattle group of students have created a plasma speaker prototype model that they're offering to the world as a kit where you, too, can have a plasma speaker that uses an electric arc to vibrate air. Pretty rad, cool, awesome, are the students' words to describe their effort. Pretty impressive are the words of people who have donated money to back their project. The project is about making it easy for people to assemble a plasma speaker, through kits with a PCB and components. StudentRND is the group. Its mission is to inspire students to learn more about science and technology. Its workspace has been a summer watering hole for students working on projects. The plasma speaker kit has been a showcase effort.

The students are proud of what they have done—"No instructives. We used basic knowledge," says a student in a StudentRND video. At the same time, they are straightforward about the speaker's limits.

“Compared to a normal speaker, this is not very efficient. The actual power usage is less than a halogen lamp, however.”

The more watts, the clearer and louder the sounds. But the more watts, the hotter the speaker gets. The goal has been to work up a design that consumes between 25 to 50 watts. The students also issue a warning that they will not be responsible for any disasters. Keep all bodily parts away from the speakers, they warn. “Plasma speakers are dangerous.” The students note the speakers are to be used for short periods of time in well-ventilated areas.

The range of the plasma speaker is the range of the tweeter (small cone) in a traditional speaker. It reproduces high frequencies but low frequencies poorly. If paired with a woofer it sounds comparable to anything else, they add, on their site.

The project goal—kits, with PCB and components—started out as $2,000. Donors have been generous. The group finds donations have exceeded the goal--$900 in one day after an article about them appeared in TechCrunch. The group as of this writing has 50 backers and $3,662 with 47 days to go.

The students worked out a tiered system, the more you donate, the more you get. Forty dollars in pledges gets you the printed board and component but you still need 12V power supply (A 12V power brick powers the speaker. “You can find a 12V power supply from old laptops,” the group suggests) and flyback transformer to complete the job. The students say this forty level is not recommended if new to putting circuits together. Sixty dollars gets you everything but the 12V power supply and for $100 the students will do all the work. They assemble the speaker and it’s delivered to your door. For $400 or more they build five fully assembled speakers for a surround sound system. As another selling point, the students suggest you could just leave them in

the box for at least the satisfaction to know you have more plasma speakers than most people.

More information: www.kickstarter.com/projects/s … sma-speaker?ref=live