

Future Anesthetist May Use Own Invention

(Continued from page 1)

And he adds, "The principles behind it are all accepted by the medical community."

So far, he has completed the main circuit board — the "brain" of the system — and has done some experimenting with individual components.

"The pieces do work," Tacchi said.

A Young Disk Jockey

Tacchi "was going to be an electrician" like his father and older brother, "but ended up as an RN," he said. Over the past few years, he seems to have combined the fields.

He first began delving into electronics in the fourth or fifth grade when he and a friend pooled their money, checked out some library books and built a radio station from scratch.

They broadcast over a two-block radius on weekends and summer days.

Nursing and Electronics

Tacchi's professional interest turned toward the health field in high school, during which he worked as an orderly. He decided electronics would remain a hobby

and began aiming for a career as an anesthetist.

A few weeks ago, he entered the nurse anesthesia program here.

Nursing school in St. Louis, his hometown, included a jaunt to Cincinnati for pediatrics affiliation.

In his dorm room there one afternoon, the idea for the Stress-Sonic came to him. When he returned to St. Louis, he built it.

The Stress-Sonic

He designed the Stress-Sonic to provide continual monitoring of the surgical patient.

And, unlike most such instruments, it can be attached quickly and easily. It simply slides onto two fingers.

The Stress-Sonic computes stress by measuring galvanic skin resistance, stimulation of skin muscles and heartrate.

Why not just use a lie detector then?

"It does work similar to a lie detector," Tacchi explained. "But a lie detector is much more trouble to attach, and then you have to be able to interpret the readings. The Stress-Sonic interprets its own readings."

The instrument is set so that a patient's "normal" level registers a particular number. Fluctuations show as increases or decreases in the scale, and an alarm goes off if "stress" rises above a predetermined level.

Worked 'Well Enough'

"We got approval to test it on patients in St. Louis, and it worked pretty well," Tacchi said. "But we had to recalibrate it when, say, various sympathetic nervous system stimulating drugs were given to the

patient."

It worked well enough to attract some investors. Tacchi's family and his wife's family are backing the new machine.

"Cindy, my wife, keeps the books for Cardio-Scan," Tacchi said. Also an RN, she works on Cabell Ward, where her husband worked until he entered the anesthesia program.

Limited Time

Tacchi was working as much as 40 hours per week on his invention this fall.

"I wanted to finish the control unit so I would have something to show the investors when we went home at Christmas," he said.

His studies prevent him from devoting that much time to it now, which accounts for the two to three-year projection.

Built Other Gadgets

Tacchi has built other electronic devices for friends, for the home and to aid in constructing the Cardio-Scan.

His regulated power supply is used for experimenting with printed circuits. "Regulation of current is very important," he explained.

A simple and efficient pneumatic switch, one which cuts on and off by pressure, will be a part of the Cardio-Scan, but also has potential for other uses.

If There's a Better Way

Some things he's built have been "a combination of copy and creation," Tacchi said. Efficiency is a standard feature.

He built one friend an electronic stethoscope for \$19.95, comparable to some that can cost \$150-200.

"And little things for around the house, like lighting controls," Tacchi said. "You know, if there's a better way to do it..."

That seems to reflect his attitude about his profession as well.

He was attracted to the role of a nurse anesthetist because of the responsibility of the job, he said, "knowing you have to be the best you can be at what you do."



LET YOUR FINGERS DO THE TALKING—Ernie Tacchi's Stress-Sonic instrument calculates a person's level of stress by taking readings from a couple of fingers. This invention led to a more intricate one which Tacchi is in the process of building. (Photo by John Becton)

Health Care System

Dr. E. Harvey Estes, chairman of the Department of Community Health Sciences, will speak on "Anatomy and Physiology of the Health Care System" on Tuesday, Feb. 15, at 3:30 p.m. in 224 Social Sciences.

All faculty, students and others interested are invited to attend.

Estes' talk is part of the continuing Duke Colloquia on Health Policy sponsored by the Institute of Policy Sciences and Public Affairs.

Trading Post

FOR SALE—Girls' bicycle, Western Flyer, three-speed, hand brakes, reflector, basket, tires, all in excellent condition, \$40; evening dress, size 16-18, white nylon chiffon with scarf, excellent for fraternal or lodge organizational use or party wear, worn once, \$20. Call 489-9537.

FOR SALE—Collector's item, child's white bone china tea set, pink rose design, a rare find, \$225. For appointment, call 489-9537, 7 a.m.-9 p.m.

FOR SALE—Andirons, \$7.50; 40" electric baseboard heater, \$10. Call 383-2848, after 5:30 p.m.

FOR SALE—75 CJ5 Jeep, six cylinder, AM-FM radio and cassette, headers, white spokes, big tires, swing gate tire carrier. Call 383-4230, nights or weekends.

FOR SALE—Bedroom suite; headboard, night stand, triple dresser, double mirrors, chest of drawers; Mediterranean design, dark finish, all wood; three years old, excellent condition; \$350 or best offer. Call 477-6992, after 5 p.m.

FOR SALE—AKC registered Norwegian elkhounds, whelped Jan. 10, 1977; will be ready for new homes on Feb. 21. These dogs make great family pets, yet provide a great deal of protection for you and yours. Call 493-2306, after 5:30 p.m.

FOR SALE—1971 Mustang, V-8, AC, PS, good condition; \$1,700 or best offer. Call 489-8876.

FOR SALE—Pioneer 4141A cassette deck, \$250 new price; asking \$150. Call 383-1006.

WANTED—Ride to UNC-CH campus; leave DUMC about 8:30 a.m., return to Durham about 6-6:30 p.m., M-F; will share gas and parking expense, or possibly car pool. Call 682-7476, after 6:30 p.m.

FOR SALE—Men's Lange ski boots, size 9 1/2, \$45; Ladies' Le Trappeur ski boots, size 7-7 1/2, \$25; fireplace screen, \$12.50; two-drawer table top style desk, \$14. Call 489-0482.

Intercom

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The Week on Campus

February 11-18, 1977

| Event and Time | Place |
|--|--|
| PERFORMING ARTS (684-4059): | |
| Fri. (2/11), Sat. and Fri. (2/18), 8:15 p.m. | Baldwin Aud. |
| Synergic Theatre; exhibit opens at 7 p.m. (Admission Charge) | |
| Fri. (2/11), Sat., Sun., Thurs. and Fri. (2/18), 8:15 p.m. | Branson |
| Duke Players: "Marat Sade" (Admission Charge) | |
| Thurs., 8:15 p.m. Dance Black Recital | Page |
| Fri. (2/18), 8:15 p.m. Duke Artists Series: | Page |
| Canadian Opera, "La Traviata" (Admission Charge) | |
| Fri. (2/18), 8 p.m. Durham Theatre Guild: | Durham Arts Council |
| "Plaza Suite" (Admission Charge) | |
| MUSIC (684-4059): | |
| Fri. (2/11), 9 p.m. Duke Wind Symphony: Viennese Ball | Down Under, Gilbert-Addoms Dorms E. Duke Music Rm. |
| Sat., 8:15 p.m. Chamber Arts Society: Warszw Quintet (Admission Charge) | |
| Sun., 8 p.m. D.U. Major Attractions: Boston (Admission Charge) | Indoor Stadium |
| Mon., 8:15 p.m. N.C. Symphony; Daniel Shafran, cello | Page |
| RELIGIOUS (684-2572): | |
| Sun., 11 a.m. Worship service: Rev. James H. Cone, professor of theology, Union Theological Seminary, New York City | Chapel |
| ATHLETICS (684-3212): | |
| Sat., Men's wrestling vs. Citadel | |
| Sat., 7:30 p.m. Men's basketball vs. St. Joseph's | Indoor Stadium |
| Tues., Men's wrestling vs. Catawba | |
| Wed., Women's basketball vs. NCCU | |
| OTHER: | |
| Mon., 8 p.m. Continuing Education Workshop, "Careers to Consider: Educational and Employment Outlooks," call 684-6259 (Admission Charge) | |
| Wed., 7 p.m. Jogging Clinic | Indoor Stadium, Rm. 119 |
| FILMS: Fri. (2/11), 7, 9:30 and midnight "Sunday Bloody Sunday," Bio. Sci. Aud.; Sat. and Sun., 7 and 9:15 p.m. "Family Plot," Page; Tues., 7 and 9:30 p.m. "Belle De Jour," Bio. Sci. Aud.; Fri. (2/18), 7, 9:30 and midnight "Discreet Charm of the Bourgeoisie," Bio. Sci. Aud. (Admission Charge) | |