

Random Walk

Young Faculty Named by NSF

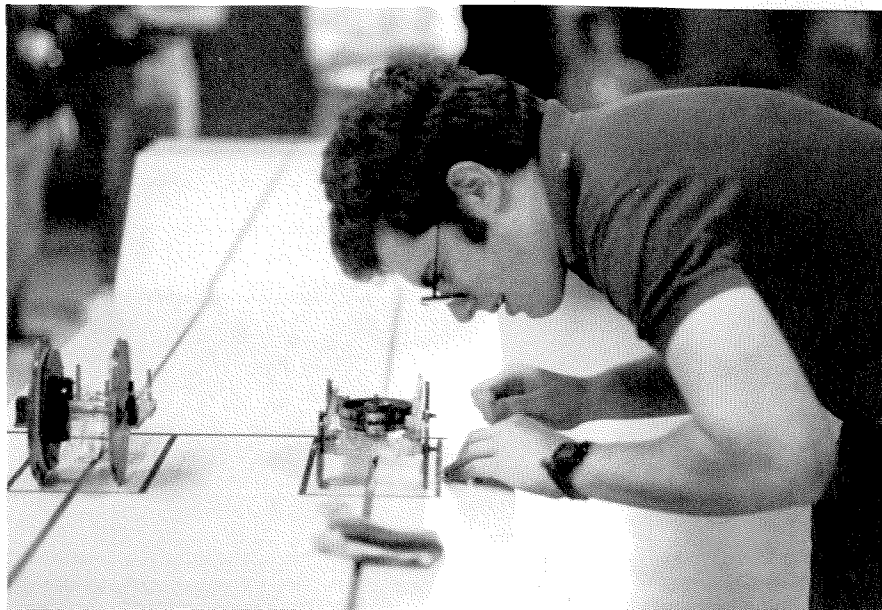
TWO FACULTY MEMBERS and two former graduate students have won Presidential Young Investigator Awards for 1987. John Doyle is associate professor of electrical engineering, and Kenneth Libbrecht is assistant professor of astrophysics. Robert Arnold, who did his graduate work at Caltech under Michael Hoffmann, is now assistant professor of environmental engineering at the University of Arizona; Michael Hopkins received his PhD in inorganic chemistry for work done with Harry Gray and is now at Los Alamos National Laboratory. Although Arnold and Hopkins are now elsewhere, they were both nominated for the award by Caltech.

The awards, which carry a stipend of up to \$100,000 per year for five years in a combination of federal and matching private funds, are intended to help universities attract and retain outstanding young PhDs in the highly competitive fields of engineering and science.

Astronomers Win Rumford Prize

PROFESSORS Robert Leighton and Gerry Neugebauer have both been named recipients of the Rumford Prize for their pioneering work in the methods of infrared astronomy. The Rumford Prize, established in 1796 and presented by the American Academy of Arts and Sciences, is one of the country's oldest scientific awards.

Leighton, the William L. Valentine Professor of Physics, Emeritus, was cited for his work on the instrumentation and methodology of modern infrared astronomy and for the development of a new family of large, precise reflectors that open the submillimeter part of the infrared spectrum to observation. Neugebauer is the Howard Hughes Professor and profes-



Mechanical engineering student Will Slate positions his vehicle for its final exam.

sor of physics as well as director of Palomar Observatory and principal investigator for the Infrared Astronomical Satellite. He received the award for conducting the first complete infrared survey of the sky (using the 200-inch Hale Telescope), leading to the discovery of new classes of infrared emitters.

Lester Lees Dies

LESTER LEES, known as one of Caltech's most inspiring teachers, died November 10 at age 66. He had been at Caltech since 1942 and had been professor of aeronautics since 1955. In 1970 he was named professor of environmental engineering and aeronautics and became emeritus last year. He was also director of the Environmental Quality Laboratory from 1971 to 1974. His varied research interests dealt with environmental problems related to energy sources and with problems of high-speed flight, including re-entry into the earth's atmosphere of missiles and spacecraft. A SURF (Summer Undergraduate Research Fellowship) endowment has been established in his name.

Race to the Finish

IT DIDN'T LOOK like a final exam — a 10-foot racetrack set up in Baxter Lecture Hall, and Mechanical Engineering 72a students with a bizarre assortment of "vehicles" they had fashioned over the past weeks out of bags of junk that included tubing, washers, springs, ball bearings, dowels, nuts, and other odd bits and pieces. Erik Antonsson, assistant professor of mechanical engineering, allotted each student an identical junk collection with the charge to make "a device to combine speed and precision to outperform an opponent device." The race was the test.

The vehicles, which ranged from catapults and airplanes to constructions that actually resembled automobiles, competed to deliver a payload from the beginning of the track, over a four-inch-high obstacle, and come to a stop at the end of the track. Winner was junior Will Slate with a car made of Masonite wheels, computer keyboard springs and a complicated negator spring. But grades didn't depend on the outcome of the race, and a good time was had by all — at least a better time than in most final exams.