

REMARKS BY GEORGIA TECH PRESIDENT G. WAYNE CLOUGH  
FIRST Robotics Championship, April 22, 2005

It is a great pleasure to welcome all of you to this special luncheon in conjunction with the FIRST Robotic Championship, which is underway at the Georgia Dome. This is the second day of competition, and things are in high gear at the Dome.

I'd like to begin by introducing several special guests who are with us today:

- Dean Kamen, who is president of DEKA Research and Development and the founder of FIRST. And I will say a little more about him in a few minutes when I introduce him to speak.
- John Abele, who is chairman of FIRST and the founding chair of Boston Scientific.
- Chris Klaus, who is an alumnus and generous supporter of Georgia Tech – the Christopher W. Klaus Advanced Computing Building is under construction even as I speak. Chris founded the enormously successful Internet Security Systems while a student at Georgia Tech and has now put a little more fun into his life by founding Klaus Entertainment, of which he is CEO.

FIRST is an acronym that comes from the initial letters of the phrase “For Inspiration and Recognition of Science and Technology.” Dean Kamen founded FIRST in 1992 to revitalize the interest of American high school students in science and technology, and its signature event is a robotics competition that starts on a regional level, then moves to an international Championship, which happens each year in April.

Georgia Tech's involvement with FIRST began in the year 2000 with RoboJackets – a student club based in the Woodruff School of Mechanical Engineering for students whose passion is robotics. At the time there were no FIRST teams in the entire state of Georgia, and two members of the RoboJackets proposed that the club sponsor a FIRST team. The RoboJackets embraced the idea, and the club has sponsored a team every year beginning with the 2001 competition. Their present team is the CircuitRunners from Wheeler High School.

But the RoboJackets were not content with merely sponsoring the CircuitRunners. Within two years of beginning their involvement with FIRST, the club began a broader outreach effort designed to help more high schools start their own teams. They organized a series of 11 technology enrichment sessions, which are 2 hours long and held weekly during the fall months for interested Atlanta area high schools.

These sessions teach science and engineering principles that students can apply to the process of building their robots. The Georgia Tech students show the high school students how to draw on design methodology, physics, electronics, computer engineering, mechanical engineering, chemical engineering, and even biomedical engineering applications in building a competitive robot.

Parallel to the technology enrichment sessions, the RoboJackets hold informational sessions that cover FIRST in detail and offer advice on how to organize a team. The club also operates a

message board to answer questions for teams and takes robots from past competitions to high schools for demonstrations.

In addition, the RoboJackets conduct outreach activities with elementary school and middle school students. Their efforts are supported and assisted through Georgia Tech's Center for the Integration of Science, Math, and Computing, which we call CEISMC, and which has as its mission the enrichment of science, math and technology education in Georgia's K-12 schools.

The CircuitRunners, which RoboJackets sponsor, are involved in these outreach efforts, and as a result, they won the Chairman's Award at the Peachtree Regional FIRST competition in 2004 and again in 2005. This award is bestowed on the team that does the best job of presenting the message of FIRST to other teams and to the community.

Georgia Tech takes a lot of pride in the accomplishments of the CircuitRunners and the RoboJackets – not only because they perform well in competition, but because of their growing outreach efforts to other high schools and even middle and elementary schools.

FIRST also offers a robotic competition for middle school students using Legos, and Georgia Tech hosts a Lego League statewide competition. This competition features robots made of Legos that have sensors and motors added, enabling them to move. These junior robots are often designed to address a social need, such as providing assistance to handicapped persons.

Georgia Tech is an enthusiastic participant in FIRST, because it helps our current students learn leadership skills in service to others, and at the same time cultivates future students by exposing high school and middle school students to the intrigue of technology and invention.

Dean Kamen is an inventor whose career began in high school when he designed an audiovisual control system for New York's Hayden Planetarium. In college, he invented his first medical device – a wearable fusion pump that was a welcome improvement for medical specialties from chemotherapy to endocrinology. The success of the pump made him an entrepreneur – he started his first company to manufacture and market it.

At the age of 30, he founded DEKA Research and Development to develop his own inventions as well as new products for corporate clients. The best known of his inventions at DEKA is the Segway Human Transporter, a two-wheeled, self-balancing, battery-powered scooter that you can buy at Amazon-dot-com.

But the Dean Kamen invention that we are focused on today is FIRST, and I'd like to turn the program over to him now to give us an overview.

**KAMEN speaks, introduces Abele.**  
**ABELE speaks, TURNS PROGRAM BACK TO YOU.**

Thank you, Dean and John. As you have just heard, FIRST is a positive force in attracting teenagers to science and technology, and that is becoming more and more critical as businesses look for workers who can compete in the increasingly technology-driven global economy.

Georgia Tech sponsored the very first high school FIRST team in the state, and in the years since then Atlanta has begun hosting the Peachtree Regional FIRST competition. We now have an opportunity not just to continue developing and growing the Peachtree Regional, but also to host the Championship on an ongoing basis. I believe it would be mutually beneficial for FIRST and for Atlanta to have the Championship here in the coming years. Until now, the Championship has moved from year to year among states such as Florida, Louisiana, and Texas.

Georgia Tech is a partner together with the City of Atlanta, the Metro Atlanta Chamber of Commerce, and the city's other universities and technology businesses in Atlanta's emergence as a major center for science and technology. Our deliberate efforts to strengthen Atlanta as a technology hub, combined with the world-class facilities we offer, make Atlanta the ideal home for the FIRST Championship.

In return, serving as the home of the FIRST Championship has much to offer Atlanta. FIRST brings together an incredible array of people – high school and college students, together with their teachers and professors, industry mentors, and corporate sponsors – all gathered around the creative use of science and technology. And that offers many benefits.

First is the role that the Championship can play as a catalyst in boosting our efforts to improve the science and technology experience we provide for our K-12 students. FIRST not only engages their interest in science and technology, but in the process, students learn important skills like teamwork, cooperation, problem-solving, project management, leadership, and gracious relationships with the competition. These are skills they will need to survive in the economic world of the 21<sup>st</sup> century.

The FIRST Championship is also an international competition, with hundreds of teams coming from all across the United States, as well as from Canada, Puerto Rico, Brazil, and Europe. This event will not only provide an economic infusion of more than \$4 million to our city, but it will also expose thousands of technology-minded visitors to Atlanta. They will learn about attractions from the Aquarium to the Atlanta Symphony, from professional sports to shopping. They will also learn to see Atlanta as a special place to live, work, and locate a business.

The presence of the FIRST Championship in our city will highlight Atlanta's growing status as a technology hub. Its dual effect of stoking an interest in science and technology among our young people and attracting technology-minded visitors to the city will further Atlanta's high-end economic development efforts, helping to attract and create the skilled technological workforce we need for the future.

At this time I would like to turn the program over to Ann Cramer, who is the director of Corporate-Community Relations for IBM, to conclude our luncheon program.