



COLLABORATIVE ENGINEERING WORKCELL FACILITY

Purpose:

To provide an engineering workcell that allows collaborative engineering and manufacturing among MSFC, industry partners, and universities.

The Collaborative Engineering Workcell provides an ideal environment for engineering design and process development, meetings, training classes, and remote teaching. The Workcell provides the following capabilities:

- high performance engineering workstations
- engineering design software tools
- process simulation software tools
- SMART Board system with overhead projector
- videoconferencing system

High Performance Engineering Workstations and Software Tools

The Collaborative Engineering Workcell is equipped with SGI and Dell machines running the Windows NT operating system. These high performance workstations provide the computational power needed for solid modeling and the development of off-line manufacturing simulations. Developing models and simulations not only give the user a visual picture of the part and the manufacturing process, but it also provides critical manufacturing data such as collision detection, near-misses, tolerance detection, and cycle run-times. Because the manufacturing process is optimized off-line, the manufacturing costs are reduced.

SMART Board with Overhead Projector

The SMART Board is an interactive whiteboard that turns a computer and a projector into a powerful tool for teaching, collaborating and presenting. With a computer image projected

onto the board, users can simply press on its large, touch-sensitive surface to access and control any application stored on the associated computer. The system allows you to capture notes and highlight important information and then distribute the information among the group. The SMART Board helps save time, increase interactivity, and improve communication.

Videoconferencing System

The Polycom Videoconferencing System provides a 384 Kbps ISDN connection to anywhere in the world. This system provides the capability for remote teaching and remote presentations. The live, real-time interaction



provided by this system not only provides for real-time collaborative work, but also decreases the need for travel to other agencies and industry partners.

POINT-OF-CONTACT:

Majid Babai / ED34
(256) 544-2795
majid.babai@msfc.nasa.gov