

PRODUCT DESIGN



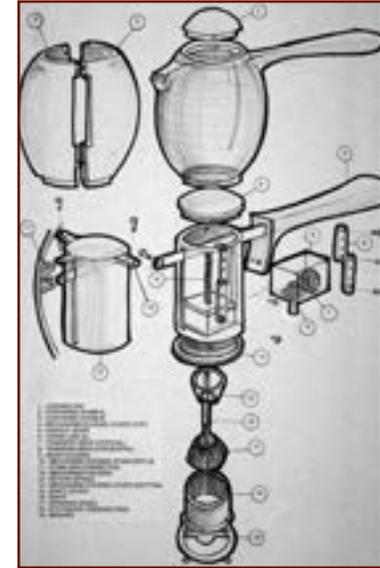
Design Objective

To design a manually operated coffee grinder that can be used by people of all ages with various physical abilities

Coffee Grinder

National Arthritis Foundation
Housewares Competition Project

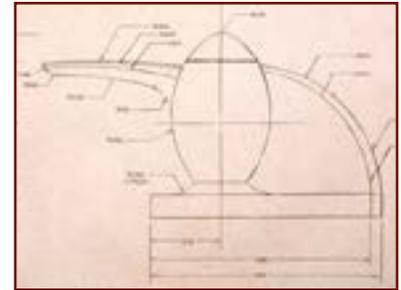
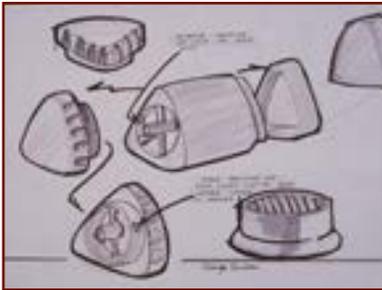
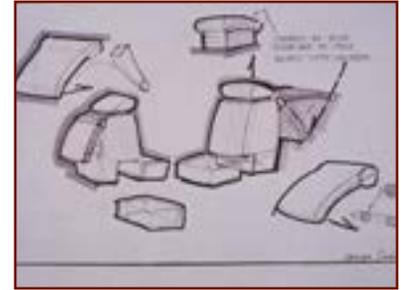
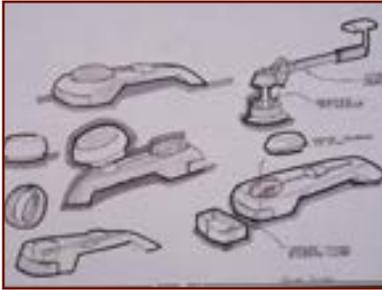
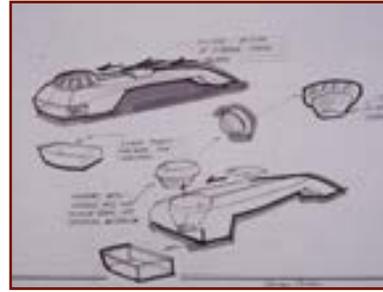
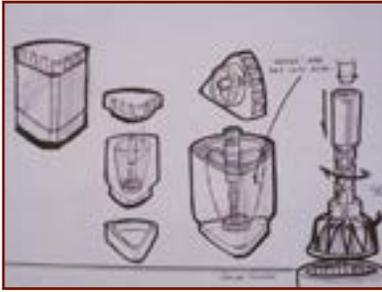
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Form and Function

- large easy-grip lever
- push down linear motion allows operation with fewer repetitions and less effort
- eliminates wrist motion needed to operate rotary grinders
- stable handle and base design eliminates tipping during use
- three step operation
- one to eight cup capacity
- easy disassembly for cleaning

PRODUCT DESIGN



Process Sketches

Coffee Grinder

National Arthritis Foundation

Housewares Competition Project

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PRODUCT DESIGN



Function

- demonstrates positioning of hand for operation
- view displays right-handed operation
- position of unit can be reversed for left-handed operation
- view shows right hand on push down lever and left hand positioned over cove
- smaller hands can be positioned on the rear of the "handle-integrated base"

Coffee Grinder

National Arthritis Foundation
Housewares Competition Project

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PRODUCT DESIGN



Design Objective

To design a low density stacking chair for use in a low traffic, medium use environment such as an office or conference space

Stacking Chair

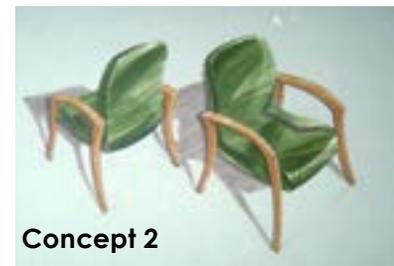
Gunlocke Furniture

Stacking Chair Competition Project

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Form and Function

- foam cushion for comfort during extended periods of use
- high seat back for back and shoulder support
- arm rests for added comfort
- one piece molded plywood bucket seat structure
- integrated armrest and leg structure extend out from seat for ease in stacking
- tubular details between the back legs and armrests give the frame a lighter appearance



PRODUCT DESIGN

Computer-aided Design (CAD) Microstation Drawing

- 3 views of stacking chair completed prior to model construction
- side, front and top views include dimensions
- construction drawing includes hardware
- Graduate Industrial Design Class, RIT

Class: Industrial Design Graduate Applications

Professors: Jim Sias, Craig McArt, Bob Kahute, Doug Cleminshaw, Toby Thompson and Kim Sherman

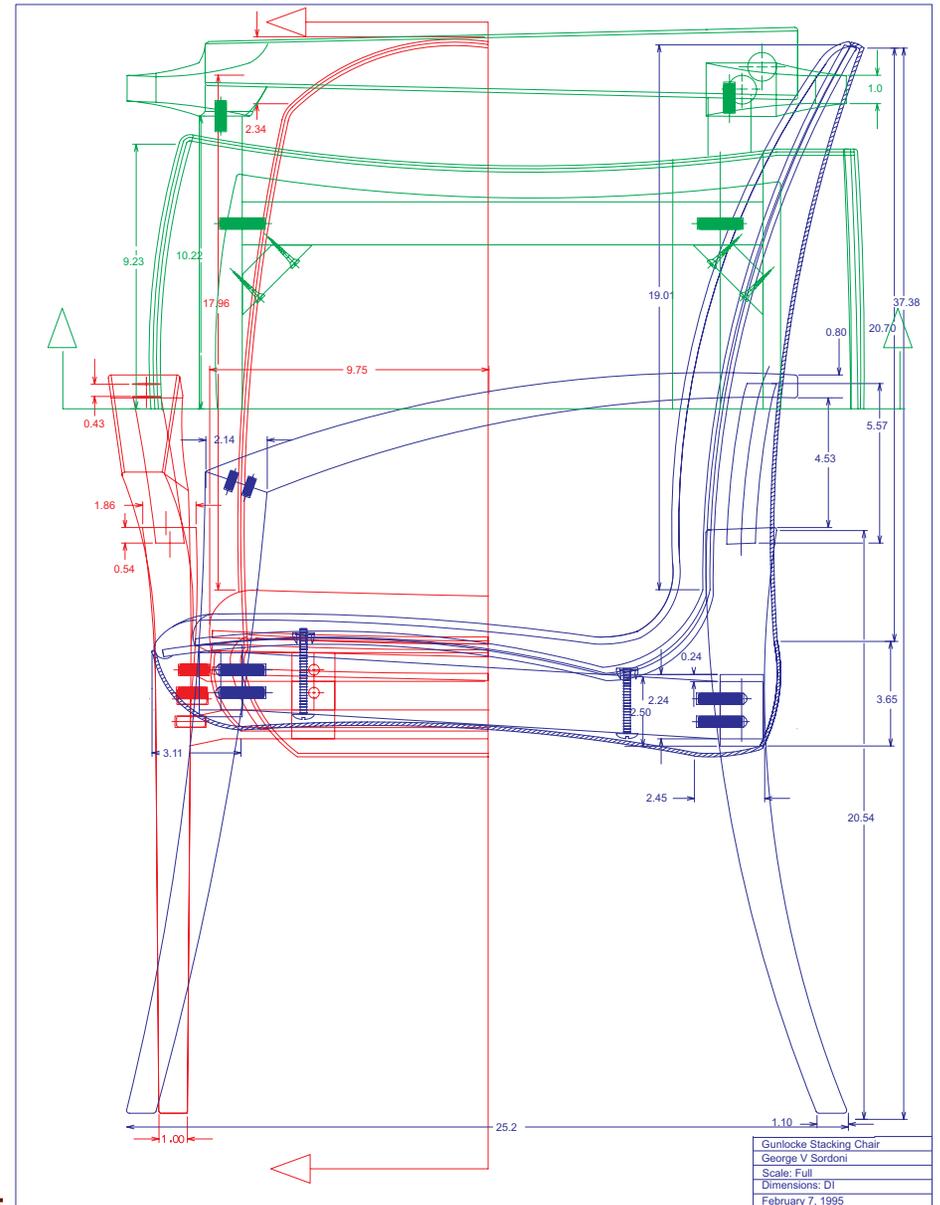
Contact RIT School of Design: 585-475-2668; design@rit.edu

Stacking Chair

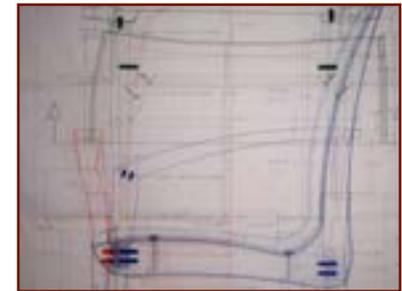
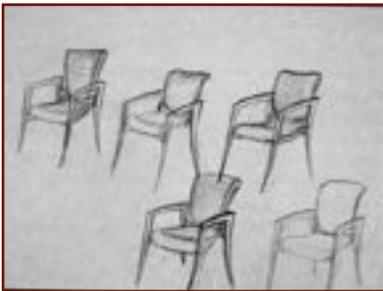
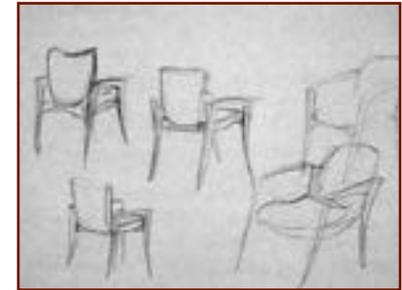
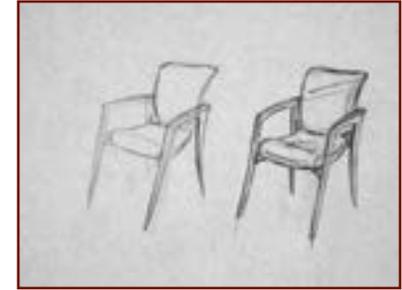
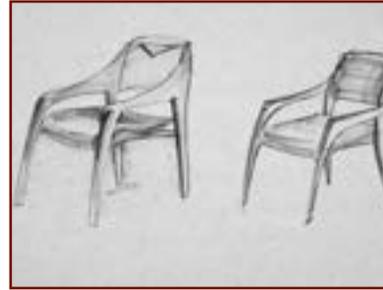
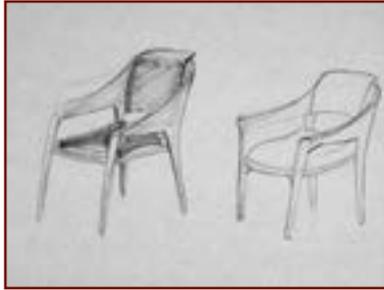
Gunlocke Furniture

Stacking Chair Competition Project

© 1994 George V. Sordoni



PRODUCT DESIGN



Process Sketches

Stacking Chair

Gunlocke Furniture

Stacking Chair Competition Project

© 1994 George V. Sordoni

PRODUCT DESIGN



Form and Function

- pair of Stacking Chairs
- identical 1/4 scale models
- shown in green upholstery and hardwood finish

Stacking Chair

Gunlocke Furniture

Stacking Chair Competition Project

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PRODUCT DESIGN



Process Sketches

Task Lamp
Lighting Design Project

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PRODUCT DESIGN



Design Objective

To design a lighting product that uses a long-life fluorescent bulb and fixture



Function

- unlimited number of adjustments of arm on either side of the base
- can be positioned for both right and left-handed use
- designed for use on a table or work surface
- directed light on any part of work surface

Task Lamp

Lighting Design Project

© 1995 George V. Sordoni

PRODUCT DESIGN



Form

- Shape of reflector optimizes bulb
- low base design for space efficiency and overall balance
- diffuser echoes shape of reflector and adjusts to dim or brighten light
- on/off switch visible at back of the bulb housing
- tilt adjustment knob visible at base of tilt arm

Task Lamp

Lighting Design Project

© 1995 George V. Sordoni

PRODUCT DESIGN



Function

- Tray: rows of carriers
- conveyer: input to testing stations
- conveyer: automation of empty trays
- carrier: ability to link and separate by automation
- labeling system: transponder
- quality control
- cart: for transport and input of high volume samples
- input: low to medium-volume: upper-level; high volume: lower level
- output: samples to storage

Design Objective:

To create an efficient station for an automated lab that facilitates labeling, tracking and retrieval of blood samples while maintaining compatibility with current blood analyzers

Laboratory Workstation: Team Project
Medical Product Design Project



PRODUCT DESIGN



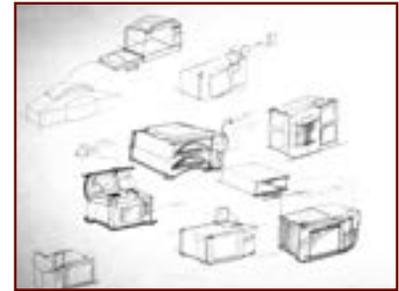
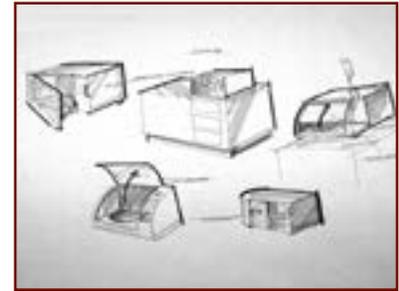
Human Interface

- tray input: 3 input stations increase operator accuracy and speed
- cart: eliminates handling and lifting
- computer interface: allows for ID and retrieval
- display: system and sample status
- keyboard
- monitor
- low input: allows emergency input
- automation of empty trays: eliminates the need for manual removal to allow further input



Laboratory Workstation: Team Project
Medical Product Design Project

PRODUCT DESIGN



Design Objective

The objective of this project was to propose a system which would meet food preparation needs of consumers into the next decade and beyond. It was designed to address the concerns of the consumer, regarding taste,

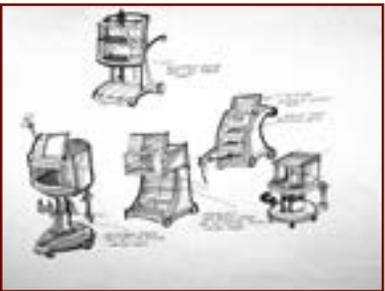
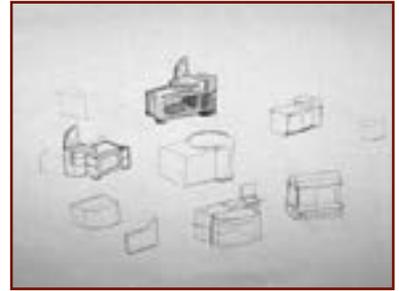
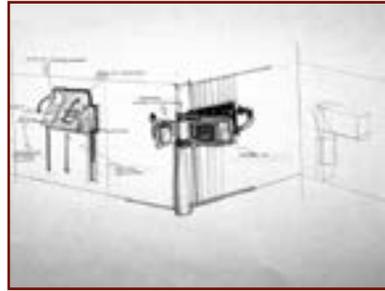
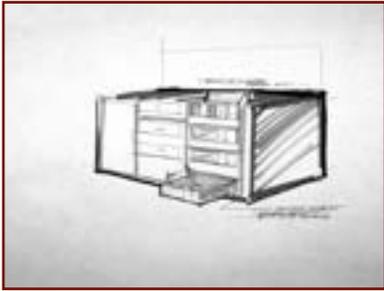
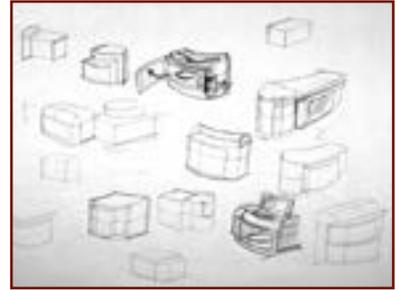
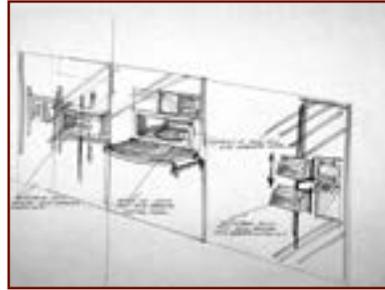
appearance, safety, and nutritional value of food. It is an effort to reconcile the sometimes conflicting contemporary consumer needs of expediting food preparation, and preparing delicious and healthy meals.

Future Wave Oven

MFA Industrial Design Thesis

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PRODUCT DESIGN



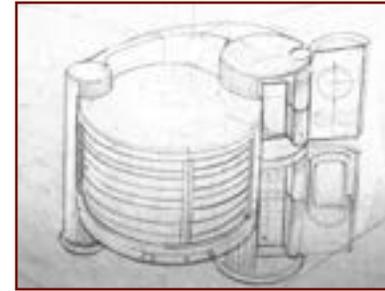
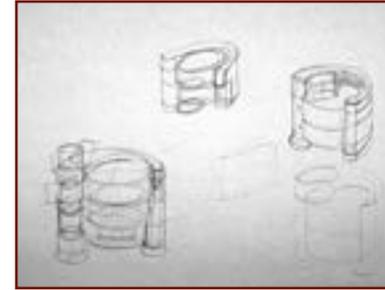
Process Sketches

Future Wave Oven

MFA Industrial Design Thesis

© 1996 George V. Sordoni

PRODUCT DESIGN



Form

The cylindrical cooking cavity is flanked by the two cylindrical columns which support it. The large column is the control unit which contains the bar code scanner and holds the portable information unit. The control unit extracts information, and relays it to the user via the display.

Future Wave Oven

MFA Industrial Design Thesis

© 1996 George V. Sordoni

PRODUCT DESIGN



Function

Incorporation of a bar code scanner, to decode information on food product packaging prompts the system to prepare foods automatically according to product-specific instructions. Another function of the scanner is to extract information from a 2-D bar code which is then processed by the system's control unit. Information specific to the user is then viewed on the touch screen display, which functions also as the control interface.

Future Wave Oven

MFA Industrial Design Thesis

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PRODUCT DESIGN



Portable Information Unit Bar Code Scanner

Future Wave Oven

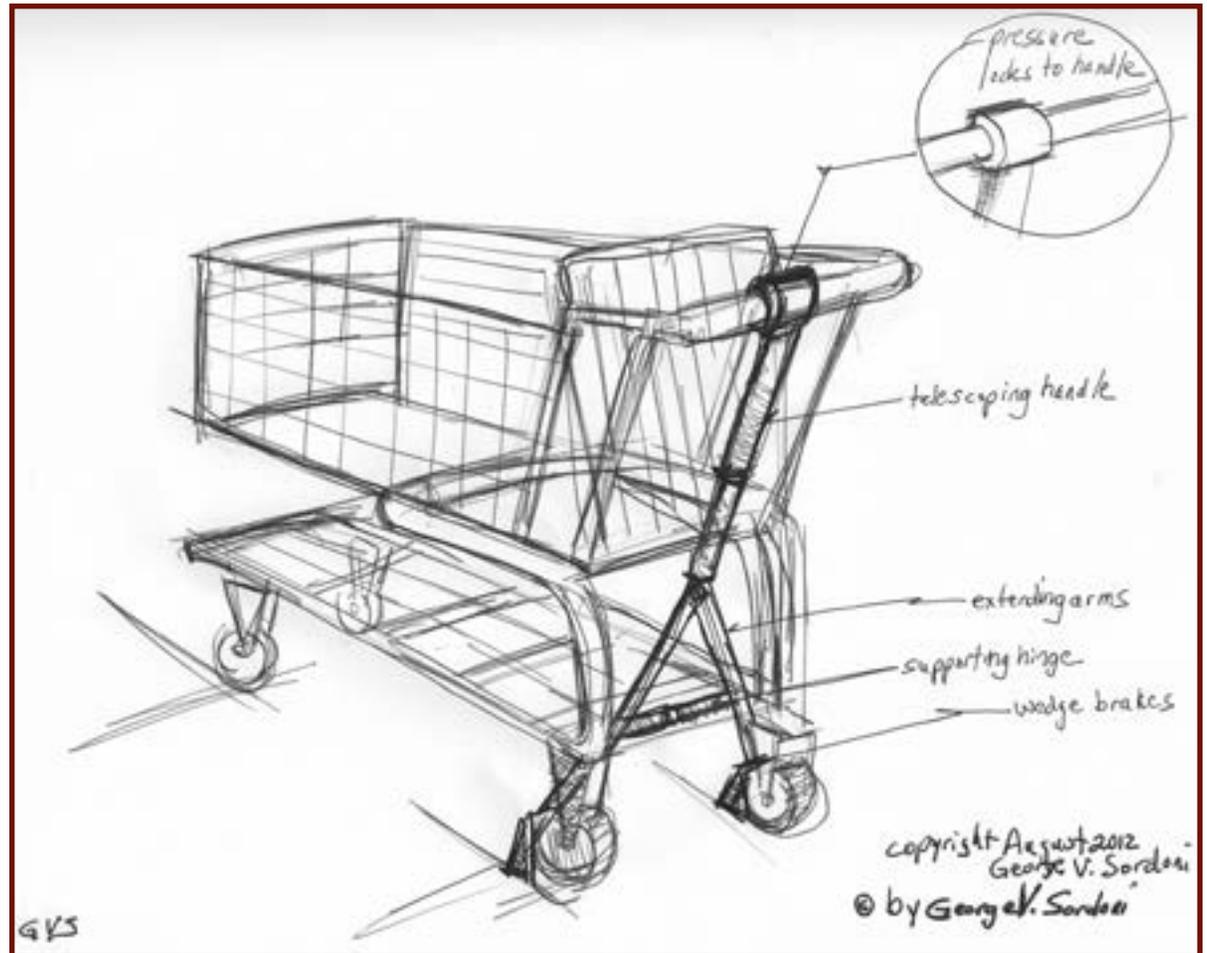
MFA Industrial Design Thesis

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PRODUCT DESIGN

Problem

The idea for the product came from a common problem that almost everyone has encountered, runaway-shopping carts. Shopping carts in parking lots have always presented problems and potential hazards for users, for drivers and to parked automobiles. When a person using a shopping cart loads groceries and other items into the car, the shopping cart can easily roll into the car or roll away into parked or moving vehicles, causing damage. When unloading a shopping cart, a person is often doing multiple tasks, such as searching for keys, unlocking doors, lifting the trunk lid or tailgate, holding a child/children, lifting children into a car or child seat, or lifting a child out of the seat in the shopping cart. Wouldn't it be great if the user could somehow lock the wheels securely to prevent the cart from rolling?



Shopping Cart Brake

© 2012 George V. Sordani

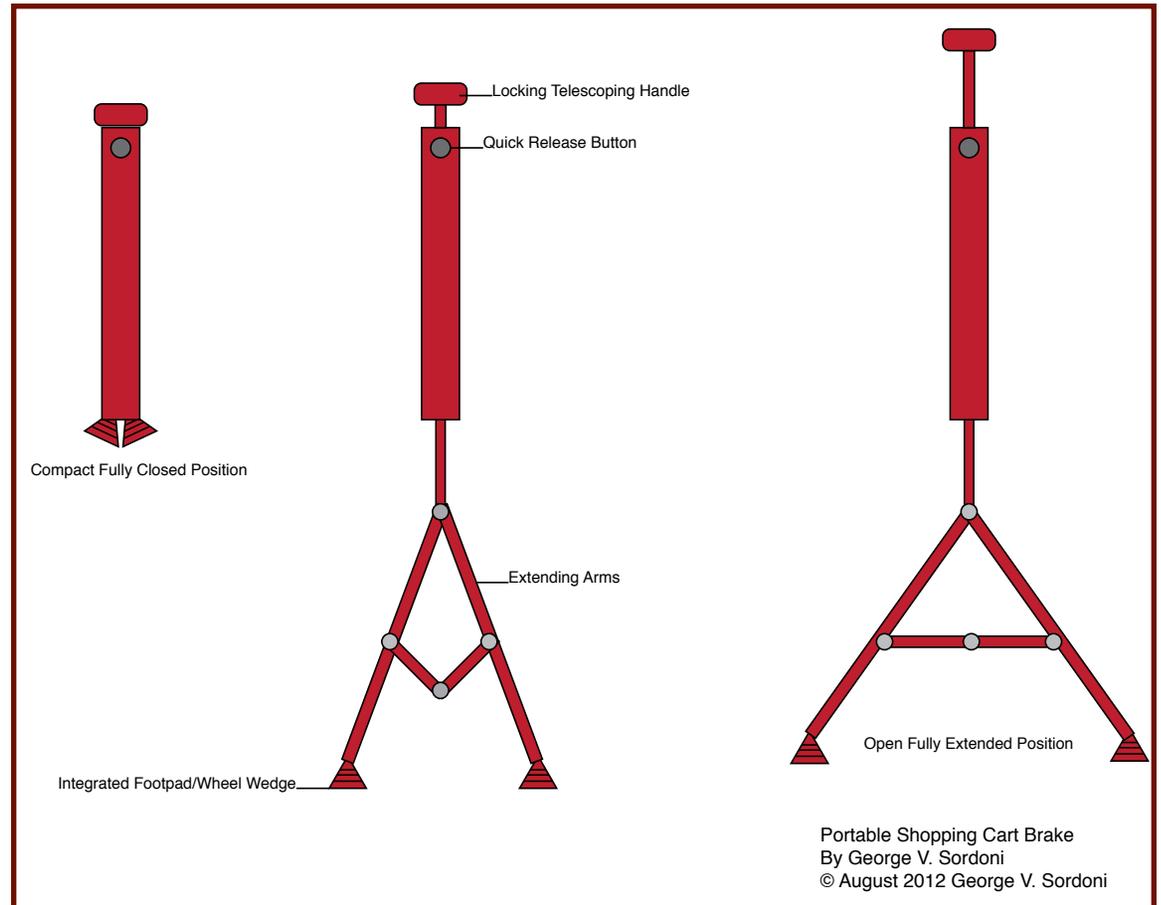
PRODUCT DESIGN

Solution

My solution to this problem is a portable device, a shopping cart brake that can lock the wheels of the cart to prevent the cart from rolling. Once the wheels are locked, the user can complete all other tasks before unloading the shopping cart, thus eliminating concerns about the shopping cart rolling into the user's car or vehicles in the lot or on the street. This device will prevent carts from rolling as the result of a sloping pavement, the wind, or an accidental push by the user when unloading items.

Key Features

My product's key features are functional, user-friendly design; a telescoping/retracting handle; footpads for locking the shopping cart's wheels without bending; wheel lock brake wedge; a quick release button for one-handed use; compact size; and a storage case.



Shopping Cart Brake

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PRODUCT DESIGN



1930s



1940s



1950s

Project Objective

The objective was to trace the evolution of a product's style over seven decades and to render an example for each decade. For the decade 2000-2010, projections were to be made and an example of a new product rendered. The product chosen was the electric shaver.

Rendering

Industrial Design Project

PRODUCT DESIGN



1960s



1970s



1980s

PRODUCT DESIGN



1990s



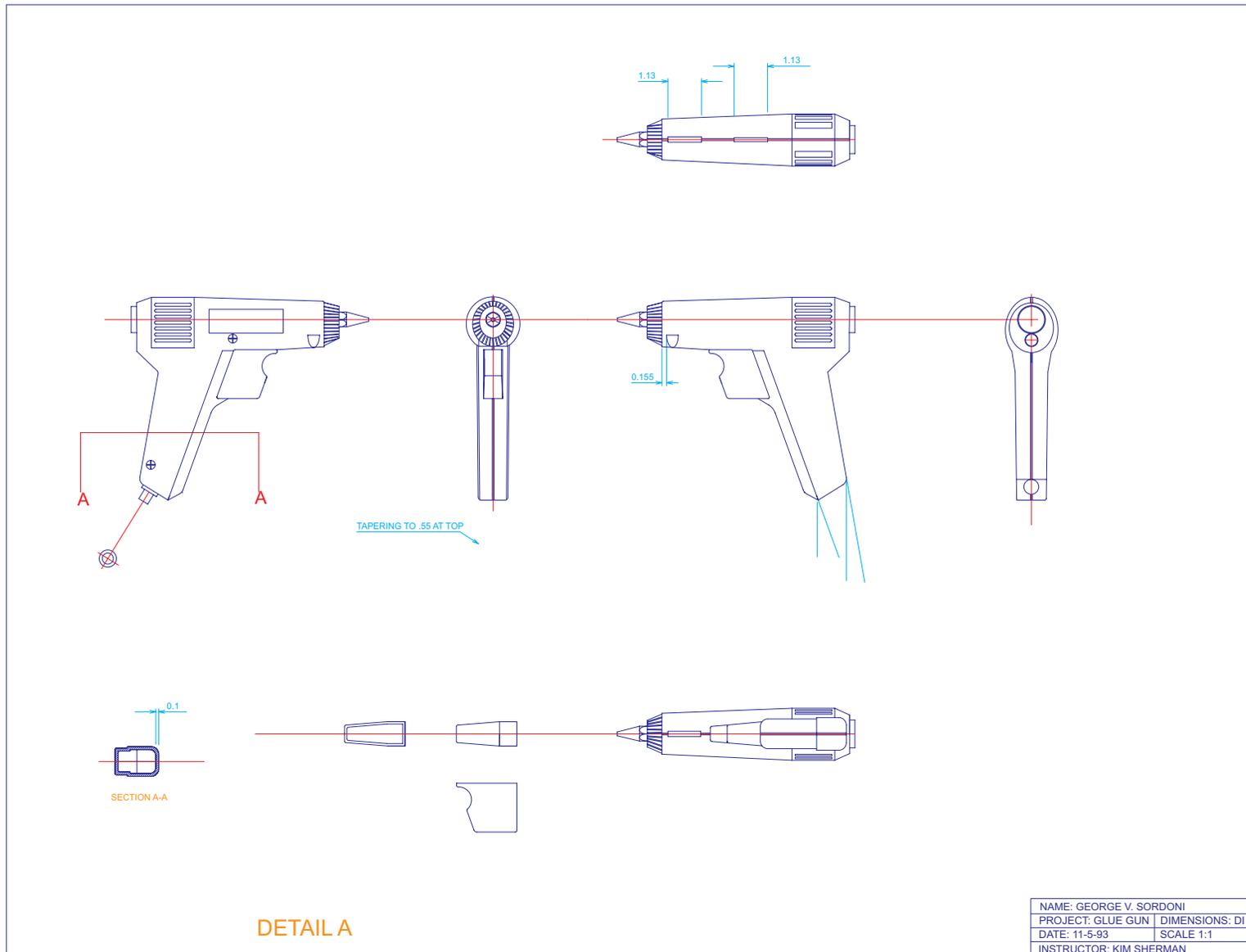
2000

Conclusions

The evolution of electric shaver style has always been directly linked to other products, especially automobiles and home appliances. However, it has not been a popular practice to return to previous shaver designs as styling references. In many other products, a return to the past for either reasons of nostalgia or simply because the earlier design was a good one, has been common. The basic design of the palm held shaver has not changed dramatically over the years, yet its style has.

The shaver pictured below, the Shick Model 70 (named for the 70th anniversary in the year 2000) is based on the 1959 Model 20. Since the Model 20 was one of the first palm held shavers, and was a successful design in its simplicity and elegance, it seemed like a good design to revive. The style of the new shaver is based on the Model 20, yet its features and technology, such as the pivoting head, charging display, and pop up trimmer are similar to today's shavers.

PRODUCT DESIGN



CAD Drafting

Rochester Institute of Technology
Industrial Design Project

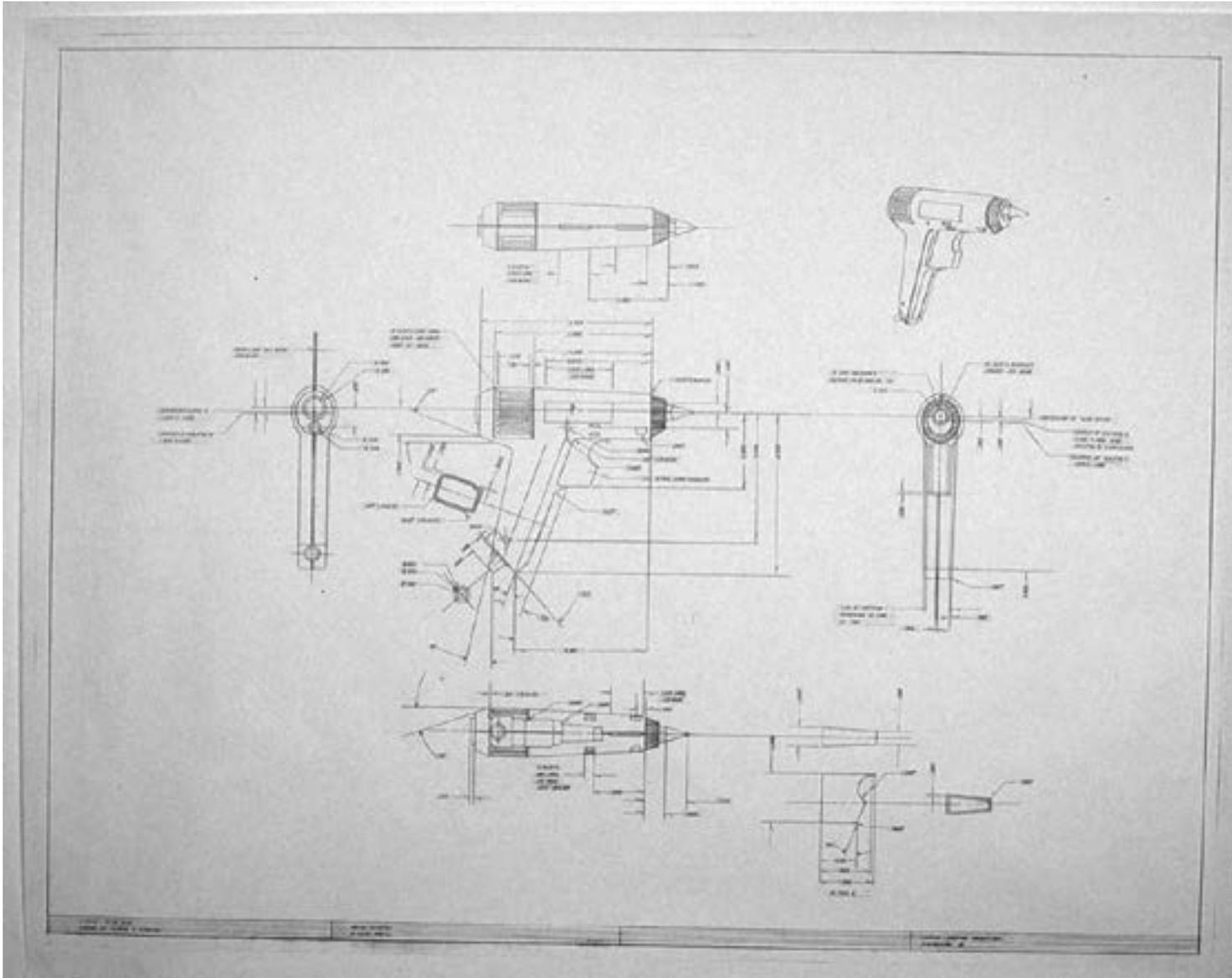
Class: 3D Computer Elective

Professor: Kim Sherman
Contact RIT School of Design: 585-475-2668; design@rit.edu

Computer-aided Design (CAD) Microstation Drawing

- 8 views of glue gun, includes section view and exploded view
- left side, right side, top, bottom, front and back views
- Graduate CAD Industrial Design Class, RIT November 1993

PRODUCT DESIGN



Hand Drafting

Rochester Institute of Technology
Industrial Design Project

Professor: Jim Sias

Mechanical Hand Drawing

- 8 views of glue gun, includes section view, exploded view, and perspective view
- right side, top, bottom, front and back views
- Drafting Industrial Design Class, RIT, 1993