

Coffee Vending Machine Product Development

Background

Advent Design's client was in the process of revamping their coffee vending machine product line, which had remained unchanged for over 15 years. Their internal design staff was occupied with redesigning the machine for the American market, but they needed another design team to tackle the design of the international product, which had to be completed in 8 months.



Foam Core Model of Complete Assembly



Cup Dispenser and Nozzle Model

Solution

Advent Design reviewed the design that was moving ahead for the stateside market, and the product specifications provided by the customer for a European machine. A coffee machine has 8 major subsystems, and Advent assigned a team member to develop a design layout for each subsystem. Another team member was responsible for developing a foam core model of the complete machine to ensure that each subsystem fit together. The foam core model of the system was the highlight of a design approval presentation to upper level management.

The development and construction of the first 5 alpha machines as completed in the first 5 months of the project. Several new features were incorporated into these machines, including a center positioned cup dispenser, a cold drink dispenser, dynamic drink dispensing nozzle assemblies, and optional coffee bean grinding capability.



Finished Machine

Impact

This project started with a single goal – to develop a new coffee vending machine that was ready for production by the end of the year. Advent Design's involvement made that happen. The beta production run of machines was completed before the end of the year, and their largest customer (in Holland) had one of these machines for beta site testing.



Advent Design
Corporation

Custom Engineering Solutions