



Results

ThermoFab was able to produce the machine at a cost that allows Harvard to make their technology available at a lower price than their competition. This allows Harvard to meet their primary research goal of making genetic mapping as open and available to researchers who might otherwise not have access to it.

By doing this, Harvard provides hope for research discoveries that will allow the medical community to better understand the role that genetics play in the ongoing quest for good health, well being, and cures for many life-threatening diseases.

The Role of Plastics in the Human Genome Project

Helping Harvard University's Largest Lab Make Genetic Technology Attainable

Challenge

Harvard Medical School's largest laboratory, The Church Laboratory, has a clear focus: to sequence human genes. The Human Genome Project is a charge that the Lab is driving to map as many individual genetic samples as possible for the further development of genetic-based discoveries. In order to broaden the number of scientists who can participate, the Lab needed to make their gene mapping technology available to the greater genetics community in an efficient, yet cost-effective manner. Gene mapping technology has been available, but at a price that many labs and independent researchers could not afford, thus eliminating valuable samples that would further the expansion of Harvard's Human Genome Project.

Solution - Unique, Flexible Approach

Since the beginning of the Human Genome Project, the approach to gene mapping has changed dramatically. Technological advances have made the process more efficient, to the point where large sequencing services now exist, with very specific areas of focus, such as disease specialties.

Harvard has designed a tool named "The Pollinator" that captures and processes the Lab's genetic samples. In order to garner as many genetic samples as possible from the widest universe, Harvard decided to market this technology and make it readily available to the greater genetics community.

"We designed the entire project from scratch," said Rich Terry, of Harvard's Church Laboratory. "Once the inside of the machine was complete, we were in search of a manufacturer to produce the enclosure itself – that brought us to ThermoFab."

ThermoFab knew that their unique thermoforming approach would be an excellent fit for Harvard's design. One key factor was the need for flexibility in color changes that would come from customer specifics down the road. Also, the intricate panel requirements were quite sensitive due to the nature of samples that the machine would house.