

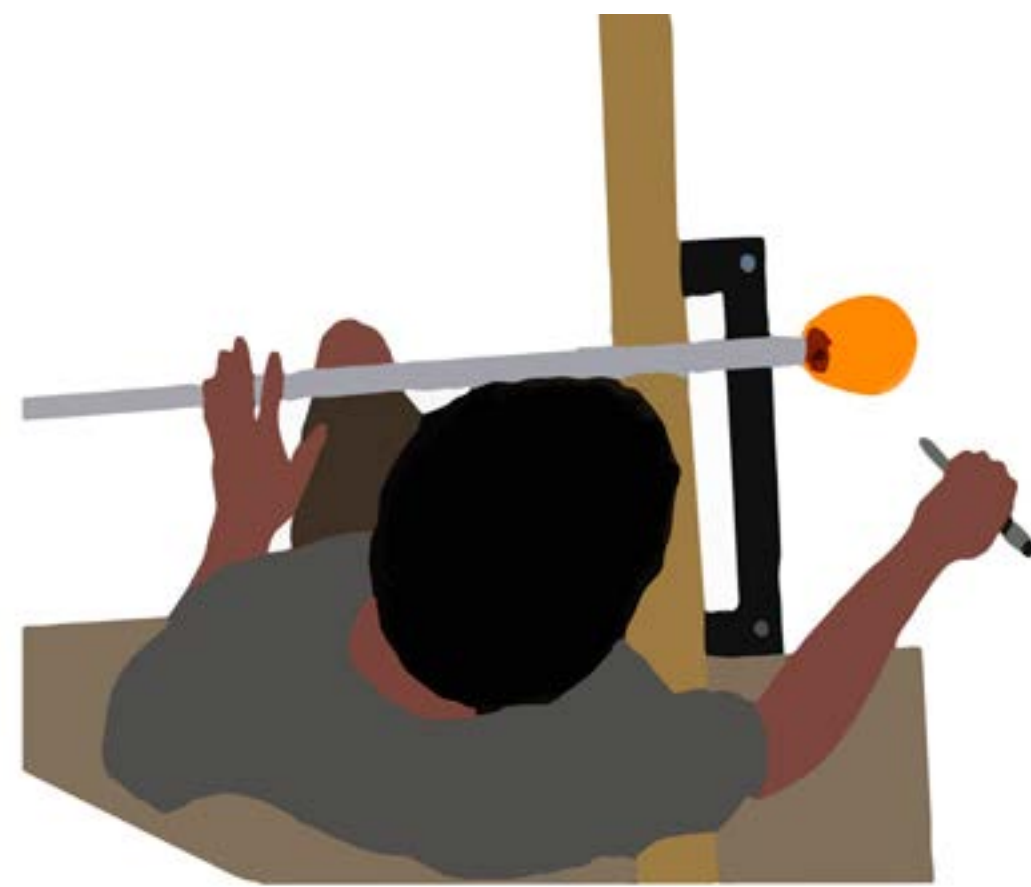
Hot Traces

New tools have not been introduced into the studio for thousands of years. Any tools that glassblowers possess are organic, rugged, and durable. Glassblowers pay a lot for their tools, but they are happy as long as the tools last for decades. Hot Traces aims to integrate itself in this environment, with intuitive design and non-intrusive aesthetics.

The Projection System

Modular Attachment

The projector easily clamps onto any size work bench, allowing glassblowers to move it between benches and studios with little effort. The frame keeps the projectors out of the way so they do not present a safety hazard.



“E-ink” like Projection

The projection appears to be a natural ink line so that it fits in with the studio environment and is not distracting to users.



The Pen

Reset Button

If a mistake is made while writing or if the writing is no longer needed, the user can simply hit the reset button located at the top of the pen to immediately erase the mark.

Pen Positions

The pen can be held in two positions:

“Pen Position”

Held in the way that a pen is held. Useful for when instructors are pointing out mistakes on student work.

“Grabbing Position”

Held in a fist, similar to other glass blowing tools. Useful when instructors are working at the bench doing a demo or when a glassblower that is trying to communicate with a partner.

Timer Dial

By turning the dial, users are able to set the amount of time that the projection remains on the piece.



Pressure Sensor

There are pressure sensors located along the grip of the pen. The pen automatically turns on when the pen is picked up. The lasers are activated so that the user can draw when the pen is lightly squeezed in a motion similar to other glass blowing tools.

Laser Designator

The laser provides a guiding light so that users can see where they are writing on the glass. The laser interfaces with the projector, indicating where the mark should go.

The Technology

Our product uses light cancellation, which can cancel a light signal by providing a signal at the same frequency, but at opposite phase. This is a similar principle to noise cancellation, but at a higher frequency. Interferometers, which use the same principle, are widely applied in science and industry.