

# Enhancing STEAM Learning with the Logitech M650 Mouse

SPONSORED

"Scrolling, zooming, panning - it's really hard to do that naturally with a trackpad...the mouse gave students greater control and improved navigation efficiency, especially in 3D modeling and programming work."

- JASON WHALLEY, STEAM TEACHER

## Overview



Horner Middle School is one of five middle schools in the Fremont Unified School District (Calif.) with approximately 1,800 students in 6th - 8th grades. Equipped with modern science labs, a new technology lab and a state-of-the-art library, Horner Middle School is dedicated to providing students with the knowledge, tools and skills to be successful lifelong learners.

Horner STEAM educator, Jason Whalley, piloted the **Logitech M650 mouse** in his classes serving students in hands-on courses such as computer applications, digital design, CAD, and Python programming. The goal: improve student precision, accessibility, and productivity over previously issued side-facing ergonomic mice.

**SCHOOL** [fremontunified.org/horner](https://fremontunified.org/horner)

**INDUSTRY** Education

**LOCATION** Fremont, Calif.

**SOLUTIONS** [Signature M650 Mouse](#)

# Challenge

Most students at Horner Middle School rely on Chromebooks with built-in trackpads. Only a few classrooms, including Jason Whalley's, integrate external peripherals like mice. "Going from the trackpad on a Chromebook to a mouse is absolutely going to be an upgrade and productivity improvement for most students," said Whalley.

Their previously issued mice posed some usability issues for students. Key challenges included:

## Comfort

The design of the previous mouse was particularly difficult for left-handed users and those unfamiliar with vertical designs. "A lot of kids did not like how it felt," said Whalley.

## Speed & efficiency

With lots of hands-on projects that often involve a lot of clicking, dragging, and scrolling, having an efficient mouse is critical to avoiding frustration and maintaining student engagement.

## Unlocking the full potential of STEAM apps

A quality mouse is essential for STEAM applications like coding, programming, and graphic design. The Signature M650 mouse enables accurate control for tasks like image editing, 3D modeling, and navigation in tools such as Adobe Photoshop and many others.



# Solution

Whalley's classroom tested the Logitech Signature M650, a semi-ergonomic wireless mouse with ambidextrous-friendly design and enhanced SmartWheel scrolling that delivers precision and speed.

"The more neutral shape allowed left-handed students to use it almost as effectively as right-handed students...the scroll roller was better than many mice I've used," said Whalley.

Whalley also emphasized that students benefited from its intuitive usability across a range of STEAM platforms, including:

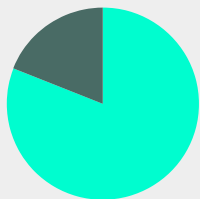
- ✓ **Adobe Illustrator & Photoshop**
- ✓ **TinkerCad & Onshape**
- ✓ **Fusion360**
- ✓ **Google Sheets & Microsoft Excel**
- ✓ **MIT App Inventor & Python IDEs**

"Phenomenal experience with remarkable, pinpoint accuracy. Scrolling and dragging feels sensational, and you are able to scroll at breathtaking speeds!"

- MIDDLE SCHOOL STUDENT

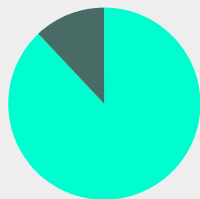






**81%** of students  
said they completed tasks more  
efficiently with the Signature M650  
mouse compared to a trackpad

Number of students surveyed (n=133)



**88%** of students  
rated their experience with the M650  
mouse as good or excellent, signaling high  
overall satisfaction and usability



## Results

According to student surveys (n=133), pairing Signature M650 mice with STEAM coursework and apps had a significant impact on performance in several key areas:

### Better navigation

The Logitech mouse improved students' ability to navigate more effectively in long documents, code editors, and design platforms. One student shared, "The Signature M650 mouse is overall an extremely good mouse to use for apps that involve a lot of dragging or designing." Whalley agreed, commenting "It was helpful with large documents that required zooming in and out—like spreadsheets. It improved navigation efficiency in CAD and programming tools like TinkerCad, Fusion360 and Python IDEs."

"It is good for finishing work fast, making 3D designs on Tinkercad, and scrolling text."

- MIDDLE SCHOOL STUDENT

### Inclusive & comfortable design

The mouse design made technology more inclusive for left-handed and neurodiverse learners. The contoured shape, soft thumb area and rubber side grips provided added comfort. Whalley shared "Most students with accessibility needs benefited from the more neutral design of this mouse."

"I absolutely love this. As a lefty in a right-hand dominant world, this makes work so much easier and more convenient."

- MIDDLE SCHOOL STUDENT

Students enjoyed the ambidextrous design of the Signature M650 mouse. "It is easy to hold and is really efficient for both hands." They also liked the quietness of the mouse. "I like how when I click I can't hear the click because it could be very distracting to other people constantly hearing clicking sounds."

### Durability & battery life

External battery and durability design aligned with classroom management needs. Students were more engaged and spent less time troubleshooting. "Durability is definitely a factor. The battery life is better," said Whalley. With the Logitech M650 mouse, students were able to worry less about failing batteries and downtime, to keep work flowing without interruptions.

The Logitech Signature M650 improved accessibility, accuracy, and efficiency in one of the most demanding K-12 use cases: a hands-on STEAM classroom. By pairing thoughtful design with high performance, Logitech helped Horner Middle School students unlock their creative and technical potential.



**logitech** for education

[Logitech.com/education](https://www.logitech.com/education)

*The schools participating in this case study received free Logitech product to be a part of the case study and provide truthful, honest opinions that reflect the participants' actual experience.*

© 2025 Logitech. Logitech, the Logitech logo and other Logitech marks are owned by Logitech and may be registered. All other trademarks are the properties of their respective owners. Logitech assumes no responsibility for any errors that may appear in this publication. Product, pricing and feature information contained herein is subject to change without notice.

Published July 2025