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January 2020

## TO IMPLEMENT MINI-FAN ON MICE FOR ADHERING ONTO THE TILT SURFACE

HP INC

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### Recommended Citation

INC, HP, "TO IMPLEMENT MINI-FAN ON MICE FOR ADHERING ONTO THE TILT SURFACE", Technical Disclosure Commons, (January 30, 2020)  
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## To implement mini-fan on mice for adhering onto the tilt surface

### Abstract

In general, mice able to work on any surface including tilt surface but what cannot be done is to leave the mice on the surface with tilt angle as it will slip.

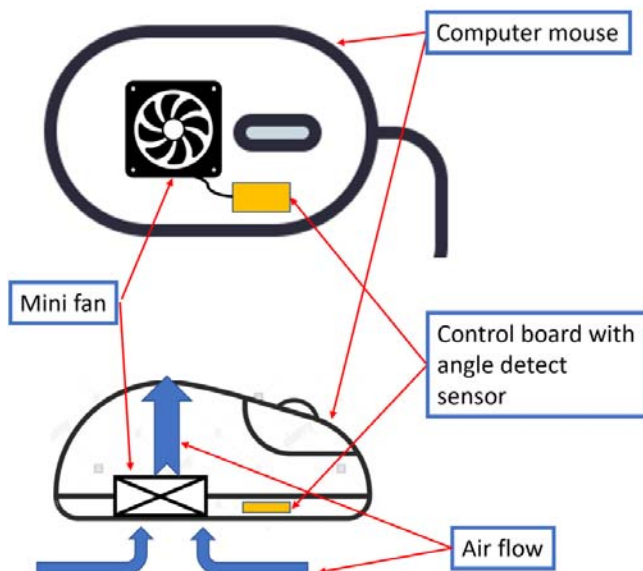
The concept here is to have mice that able to adhere to the tilt surface while not operating it for a short while or power is still on and not placing it on horizontal surface.

To achieve this concept, angle detection sensor and fan must be implemented as a control loop in order for the fan to rotate base on the defined angle range for creating vacuum force to have mice sticks on tile surface.

### Concept flow

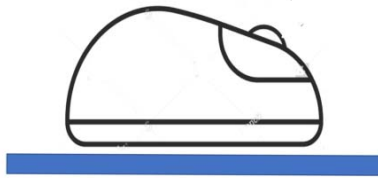
1. Build in a mini fan/ control board with angle sensor inside a computer mouse.
2. If sensor detect table surface is not horizontal, will trigger Fan rotating.
3. Fan rotating provide an air flow from upper side of mouse.
4. Air flow create a vacuum for an adhering force between mouse and table surface.

### Detail structure

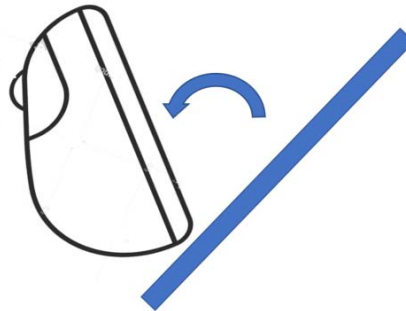


The original design without this solution

Mouse can use stable if used on a horizontal surface

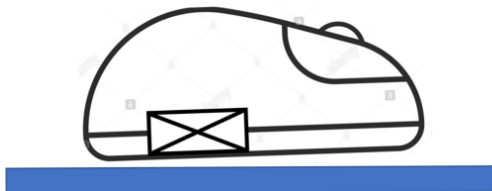


Mouse will fall when used on a tilt surface



The new design with this solution

Fan don't work if mouse used on a horizontal surface



Fan will auto rotate and provide an adhering force when Mouse used on a tilt surface, and won't fall



*Disclosed by Chang-Tai Lin, Henry Wong and Wei Jen Chen, HP Inc.*