Goldilocks Device Design

Mitchell Davis  
*Portland State University*

John Williamson  
*Portland State University*

SRG Architects

Follow this and additional works at: [https://pdxscholar.library.pdx.edu/research_based_design](https://pdxscholar.library.pdx.edu/research_based_design)

Part of the Architecture Commons

Let us know how access to this document benefits you.

**Recommended Citation**
Davis, Mitchell; Williamson, John; and SRG Architects, "Goldilocks Device Design" (2016). *Research-Based Design Initiative*. 77.  
[https://pdxscholar.library.pdx.edu/research_based_design/77](https://pdxscholar.library.pdx.edu/research_based_design/77)

This Book is brought to you for free and open access. It has been accepted for inclusion in Research-Based Design Initiative by an authorized administrator of PDXScholar. Please contact us if we can make this document more accessible: pdxscholar@pdx.edu.
**Abstract**

As the use of sustainability techniques in architecture increase more and more firms in the world have started to dive into the possibilities of how to create passive and net zero buildings. But in this exploration of techniques such as materials, solar shading, passive cooling there has been little thought into testing how well these techniques are actually working to improve the habitat and livability for the humans using these spaces. Although many buildings use meters to test the performance of a buildings for post occupancy there is little in the means of testing the human factor in these buildings that push the boundaries of sustainability and try new techniques. SRG has created a device that will track the thermal comfortability in buildings they have designed, although the device at this point is very rough and needs much more attention to create a simpler user interface and more attractive and tactile housing for the device. By using simple manufacturing techniques we hope to push the design of the device forward into small prototypes that can be implemented in the nearly finished PSU Business building that is being renovated currently. Along with previous readings on thermal comfort before the renovation we will implement the device in the buildings to test the before and after effects of the new design and hopefully reveal how much more effective some of these systems are and also reveal flaws in some of the systems old and new to more clearly understand the effect of design decisions on thermal comfort of the users.

**Implementation Plan**

**Viable Room Study**

**Viable Office Study**

**Design Precedents**

**Device Precedents**