

# “FIDGET”

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May 13, 2012

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## Introduction

The word, fidget, has long held a stigma, describing bothersome and unproductive behaviors of those who cannot concentrate and are anxious or impolite. The word has been used in conjunction with troublesome children and unprofessional adults. “Fidget” redefines this term by activating the benefits of fidgeting. By occupying senses in the wearer that are not required for the task at hand, they provide the right balance of sensory-motor stimulation that allows the individual to focus on their task. The collection, consisting of ten rings, functions to increase the focus of individuals with ADHD, as well as the average person. “Fidget” is a hand-centric collection of jewelry meant to aid the wearer in productive fidgeting.

## Motivation

I became initially interested in the concept of fidgeting and how I might address this as a designer upon my recognition of a personal tendency to move my legs and feet constantly. This propensity became particularly stirred whenever I was completing a low energy task, such as sitting in a meeting, reading a book, or watching television. Often bothering those around me, my movements would shake the surrounding furniture and disrupt the visual field of those in my vicinity. Once I was aware of my disruptive behavior, I would attempt to halt the mindless movements completely, but would unconsciously begin them when I was not paying complete attention. The rhythmic movements would calm my anxieties and focus my mind. I had become so reliant on these actions to function properly, that I found it nearly impossible to go a full day without resorting to them unconsciously. Fidgeting felt natural and comfortable, like a motor running in my body to help my mind stay on track.

Once I became aware of my own fidgeting inclinations, I broadened observations to those around me. Making a point to monitor the movements of others while in lectures, I noticed that nearly every individual I witnessed exhibited some form of rhythmic fidgeting. Those who completed simple, silent movements, such as rubbing one’s index finger back and forth over the knuckles on their opposite hand, seemed to not be aware of their actions. However, those who performed tasks with larger visual and auditory stimulations, such as clicking one’s pen cap on and off, tended to be distracted by these actions. Not only did they distract themselves from their primary task, i.e. absorbing lecture information, but they also distracted or annoyed those around them. At one point, an individual actually swatted at the hands of an adjacent subject who was twiddling their pen between two fingers. After the physical interaction between them, the two people removed complete attention from the lecture and began to converse between themselves. At this point, the fidgeting movements of one person became a mechanism of complete distraction for two.

This particular incident is a quintessential fidgeting event that leads society to view the practice as bothersome and unproductive. Though both the knuckle rubbing individual and the pen twiddling individual began their movements to promote internal focus, one was much more successful than the other. This led me to question whether all fidgeting was bad, and what parameters are involved in a successful fidget practice.

As well as a desire to investigate the merits of fidgeting, my own need for physical movement to aid my mental faculties led me to research the subject. Because my brother struggled with severe Attention Deficit Hyperactive Disorder as a child and I was raised in an environment of movement and distraction, I saw a connection between my own habits and

those of people with ADHD. I related to their struggle to stay static, but in a much lesser degree. I became personally invested in addressing the issue, both for uses by those with ADHD, and for the average individual, as my observations told me that fidgeting is a widely relevant subject.

## Benefits of Fidgeting

It is a common notion present in the field of ADHD research that introducing an activity that taxes senses, other than the ones being used for the primary task, improves the academic performance of individuals with the disorder (Pauli). This function also applies to those without ADHD, as secondary, mindless tasks have been seen to improve the brain function and focus in a vast majority of individuals. Dr. Roland Rotz and Sarah Wright explain this phenomenon in their collaborative publication, Fidget to Focus: Outwit Your Boredom: Sensory Strategies for Living with ADD. The necessity for some individuals to fidget comes from the variation in what they describe as everyone’s individual “neurological comfort zone” (Rotz, 24); each person has a specific level of sensory stimulation that they must remain in to feel mental comfort. This stimulation can involve multiple senses, which include the five primary senses for understanding the world around ourselves (touch, smell, see, hear, taste) as well as the two senses that tell us the orientation of and strain on our own bodies (proprioceptive and vestibular)(Rotz, 24). Within this zone, any given person is able to focus on their primary task. If their task is low in sensory stimulation, such as reading a book, the person must then compensate by involving unused senses in a secondary, mindless charge. If they do not do this, the person becomes highly distractible from their task, as their brain is seeking out stimulation.

In this way, what society deems as “distraction” can be similarly defined as “attraction” (Rotz, 31). When an individual is experiencing distractibility during a boring task, their brain is not attempting to pull focus from said task; it is simply seeking more stimulation. Those with ADHD are seen as highly distractible because they have a generally elevated level of stimulation as their comfort zone. It has been observed that the pre frontal cortex of those with ADHD noticeably slows down when they are understimulated (“Fidgeting Helps ADHD People Stay Focused”). Their minds then force them to attract to elements outside of their task to regain stability. By providing a subtle tactile stimulant, this collection of rings offers individuals an outlet for their excess attractability.

## **Not a Novel Concept**

Rhythmic sensory stimulation has been utilized to promote focus for up to thirty thousand years (Rotz, 33). Its earliest known use was during meditation and religious ceremonies. At this time, rhythmic auditory stimulation, such as a monotonous beating of drums or repetition of oral mantras, was commonly used. An ancient tactile practice that can still be seen today is the rubbing and counting of rosary beads to help those in the Catholic religion stay focused on prayer. The use of “worry beads” is a similar tactic; the individual rubs a string of beads between their fingers to channel anxiety and focus on the present (Rotz, 33).

The sensory world around us is designed to promote certain mental states in specific scenarios. Rotz uses the example of terry cloth as the material we make our towels out of. This common household item could have easily been produced using softer materials, however we prefer the roughness of terry cloth because it is stimulating and invigorates us to become

mentally charged after our morning shower (Rotz, 34). Similarly the colors we surround ourselves with provide different levels of visual stimulation, even when we are not directly observing them. Rotz introduces the idea of stimulating colors, such as red on fire engines and stop signs, which society uses to grab an individual’s attention. Conversely, we use neutral beige colors in settings to promote calmness, such as hospitals and spas (Rotz, 33).

I applied this same idea to further research I conducted on what colors would promote focus. This same goal has been addressed by interior designers, as it is applicable to wall paint. With our interior walls, we can transform an entire visual environment into one that promotes calmness, such as a blue bedroom, or one that promotes energy, such as a yellow kitchen. Comparing postulations by several interior design articles, I found that the color that most promotes focus is one in the center of the spectrum from calm blue to energetic yellow; a light Kelly Green. Being in the center of the spectrum from cool to warm, this green has a stabilizing effect of the mind and is often used in classrooms to endorse academic interest in students, as well as in home offices to encourage productivity (Smarty). Because of this, I utilized Kelly Green in most of the rings in this collection.

## Strategies

Fidgeting strategies can be categorized into the senses that they stimulate; tactile, auditory, visual, taste, and smell. Additional categories include movement and anxiety stimulations. Movement is an extension of tactile practices, in that it is a physical stimulation effected onto the subject; tactile often refers to stimulating textures, while movement deals with the activation of joints and movement of body parts. Anxiety stimulations often have to

do with time; an individual might perform better under tighter deadlines as their anxiety increases (Rotz, 49). Those with ADHD often put an assignment off until the last minute, adding an anxiety stimulation to an otherwise low energy task.

To be a successful fidgeting practice, the stimulation should utilize senses not required for the primary task at hand. It should also not violate the senses of those around the affected individual. Because of this, I utilized tactile and movement stimulation in creating this ring series. The rings also have a subtle visual stimulus, but not so grand that they will disturb those around the wearer. Other than taste, all of the other stimulation categories have the possibility of affecting those in proximity of the wearer. Tactile and movement stimuli can be easily contained to a single individual.

## Parameters

At the onset, I identified a series of parameters that were central and important to these pieces: relatively small in relation to the hand so as not to encumber daily activities; incredibly quiet, if not silent; tactility; and pleasure to touch. The movements that the rings provoke also needed to involve several factors, one of which being the activation of joints and muscles in a natural way, preventing injury by over-extension. It is also essential that the movements they provoke are repetitive and simple, not taxing on the mind. They require little to no visual involvement, operating mainly by touch. These pieces are meant to stimulate this unused sense when one is completing a mental task, and must not be so involved or complicated that they distract from the primary charge.

Mechanisms play a pivotal role in the performance and success of the rings; serving as the facilitators of movement and repetition. The aspects of the mechanisms that I researched and designed include graceful movements, discrete design, and general aesthetics. Most of the rings are digitally modeled as a means of producing functional and exact mechanisms. The collection emphasizes precision and cleanliness of design.

## Methods

Upon completion of ample observation and video documentation of the most common manifestations of fidgeting, I understood and implemented natural hand movements into the collection. I completed video-documented observations of individuals while they fidgeted, including students, professionals, those with ADHD, as well as myself. By recognizing ordinary fidget actions in multiple demographics, I identified which joints and muscles to activate when designing the mechanisms for each ring. In these mechanisms, I aimed to mimic the observed hand movement, straying from any concepts that might strain the wearer’s joints. Any strain might risk injury or simply make the movements uncomfortable, causing the wearer to focus mental faculties on the rings, rather than mindlessly using them.

The fabrication process I used for these rings is a combination of computer aided modeling and hand metal work. Because of my experience with both processes, I utilized each when I recognized that they would be the most successful option. In all but one piece, the body of the rings were made through computer aided processes and 3D printed in a photopolymer. This material offered extreme detail and fair durability for pieces with small moving parts. I employed the precision of the computer aided methods to create mechanisms where elements

had to move freely within a tight tolerance of one another. This process was also especially successful in allowing pieces to fit perfectly into each other. Hand metal work was favorable for small, but essential structural elements. The photopolymer weakened as it thinned, creating potential fragile points in the designs. These thin elements were replaced with metal, granting rigidity and strength to structural details. Metal is used as a supplement to support this chiefly 3D printed collection.

## **Conclusion**

Through this project, I aimed to minimize the stigma surrounding the act of fidgeting. By creating a collection of rings intelligently designed to aid in constructive fidgeting, I provided an outlet for persons with disorders and injuries that require repeated stimulation to fully focus. This socially relevant, interdisciplinary project similarly benefits the average individual with equivalent needs, but of a lesser degree.

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