# Document the Design Thinking Process

| **Start by Gaining Empathy** | | | | | |
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| **1. Interview – 8 min. (2 x 4 min.)**  **Colin:**   * Goal of 8hrs sleep * Early gym * Classes in morning & evening * Between classes; nap and homework * Balancing work between capstone and regular homework * Goes to work * Going out * Occasional video games * When able, visiting family & puppy * Stay organized, * Inconveniences: getting schedule for work, setbacks in capstone * Lives off campus   **Riley:**   * Try and achieve 8 hours of sleep * Take medication * Getting prepared for class “annoying and difficult” * Morning-early evening classes * Try to grab food or nap in between * After classes try to start on homework * Organized * Video games often “X-Com” * Lives on campus * Go out with friends | | | **2. Dig Deeper – 8 min. (2 x 4 min.)**  **Colin:**   * Stays on sleep schedule with melatonin * Drives to campus in morning & traffic can vary * Sets own dates and times for capstone work balance * Uses TA meetings as motivation to complete work * Staying organized: Checking slack, calendars, staying on due dates * Set schedules taking time which could be used for work * Has to revise work for capstone which takes time   **Riley:**   * When getting ready for class medication, preparing bag, getting food at union, checking weather. * Homework can affect the amount of sleeping being taken. * Going to the lib until closing hours * Video games affect sleep sometimes * Staying organized with phone apps * Living on campus fairly close to class | | |
| **Reframe the Problem** | | | | | |
| **3. Capture Findings - 3 min.**  Needs:  **Colin:** FInding the middle ground between capstone work and homework. Perfecting time management.  **Riley:** Getting enough sleep to go to class and focus. Perfecting time management.  Insights:  A combined insight for both Colin and Riley is trying to be better with time management as a whole. Becoming more organized when turning in assignments/homework or with personal needs such as sleep and management between courses. | | | **4. Define Problem Statement - 3 min.**  Colin and Riley need better ways to improve each other's time management skills because becoming more organized when turning in assignments/homework or with personal needs such as sleep and management between courses can be greatly beneficial for each individual. | | |
| **Ideate: Generate Alternatives to Test** | | | | | |
| **5. Sketch at least 5 radical ways to meet your user’s needs – 5 min.** | | | | | |
| **Make a plan:**  Developing strategies to achieve one's goals on a weekly basis can greatly improve one's time management skills. A great example can be calendars. | **Unavoidable timers:**  Using timers or alarms that still go off when you initially ignore them can be a useful way to ensure that you don’t avoid the task you’re supposed to complete. For example, shutting off your alarm and going back to sleep is a common habit. But what if instead you had a second alarm? One that would hear your initial alarm go off, and if it sensed you’re not interacting with the environment, (e.g. turning the lights on to get ready,) then it’ll make a loud sound. Only turning off once it senses you’re up and about, (e.g. a sudden increase in light levels.) | **Priority lists:**  Instead of a usually to do list make a list of tasks based on priority and check them off as you complete them. Then when the priority work is done then you can work on other homework/projects. | | **Avoiding multitasking:**  Multitasking can be cause issues for people. Juggling multiple tasks can make you lose focus and become inefficient, exactly the opposite of what multitasking aims to accomplish. Rather than juggling multiple at once, a motion sensor can be used to keep you on task. Only keep the items you require around you. Put anything that isn’t necessary outside your work area. Once you’re ready, with the tap of a button, a sensor turns on. If it senses you moving outside the designated work zone, flashing lights and noise will remind you to return immediately. You can use a 5 minute snooze, but it will only allow you to turn it completely off when you’re back inside the work zone. | **20 min rule:**  The 20 minute increment block is one of the most essential time management skills. Prepare to tackle an important task and set the alarm for 20 minutes. Focus singularly on the task and give it your best shot until the alarm rings. Now decide if you’re going to put the task down or finish it. Repeat until you’ve completed the task. |
| **6. Share your Solutions and Capture Feedback – 10 min. (2 x 5 min.)**  Overall the feedback was fairly positive both ways, we both agree that making a plan, avoiding timers, priority lists, avoiding multitasking, and 20 min rule are very good concept ideas for becoming more responsible with time management.  The only issue or suggestion could be that some of these ideas are not physical objects so maybe coming up with some ideas that a person can use in their hands might be something to consider. | | | | | |
| **Iterate Based on Feedback** | | | | | |
| **7. Reflect and Generate New Solution – 3 min.**  After sharing our ideas and reflecting on the feedback given to each other, we have decided to look further into developing the unavoidable timer. We both consider this idea to be a reasonable solution to our problem of time management, especially in the early morning. Your entire day can be thrown off by a simple tap of the snooze button. We’ve all been there, we’ve tapped the snooze and suddenly it’s an hour later and you’re running late to class, work, or wherever you’re supposed to be. Our idea is developing a motion sensor alarm that goes off after your initial first alarm goes off.  (motion sensor alarm clock “USB”) | | | | | |
| **Build and Test** | | | | | |
| **8. Build Your Solution – 10 min.**  The solution we have come up with to solve this problem will rely on the use of the light sensor and the speaker on the Adafruit Circuit Playground device. Our device will operate during normal waking hours. Once it detects a sudden change in the average noise level of the room, (i.e. an alarm going off,) it will start a countdown timer. Once the timer reaches zero without the user interacting with the environment, (i.e. causing a sudden change in the average light level of the room,) the device will create a loud noise. The noise will continue until the user turns on the lights, signaling to the device that the user is now up and it may deactivate.  This can not only help with waking up in the morning but it can benefit with time management. With little to no delay in the morning it gives an individual more time to get their daily activities done. | | | | | |