

Group 5 - The Drawbed

Project Team Members

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1. Executive Summary (Overview)

Have you or a loved one ever struggled with being a lazy ass? Is your bed just *too* comfortable? Do you have an important meeting at 8 AM, but always sleep through your alarm? Narcoleptic?! The draw bed may be the solution you've been looking for, It is a bed you cannot oversleep in! The Draw-Bed™ utilizes hydraulic/electric motors to incline your bed up to an angle of 90 degrees, forcing you to get up and face the day at your desired time. Hitting snooze on your alarm, mindlessly scrolling social media first thing in the morning, or if your bed is just too comfortable, all of these are no longer an option with the drawbed.

The Draw-Bed has a variety of features to enhance and enforce your desired sleep schedule, such as:

- Timer-based hydraulic system to force the user to exit their bed at a given hour
 - *Users set their desired sleep and wake time on the companion app (maybe on the bed itself?) which determines when the drawbed's hydraulics activate. The bed's alarm gives the user 10 minutes to get out of bed on their own accord and will only deactivate when the bed detects that the user has gotten up.*
- Special Phone charging slot
 - *The drawbed remains upright at all hours outside of the user's sleep schedule. In order to recline the bed for sleep, the user must insert their phone, laptop, or other device into a charging cubby for the bed to recline. In the event that the user must answer an important message during the night, the phone may be removed for up to 15 minutes at a time before the bed activates.*
- Companion app to encourage you to sleep at your desired time

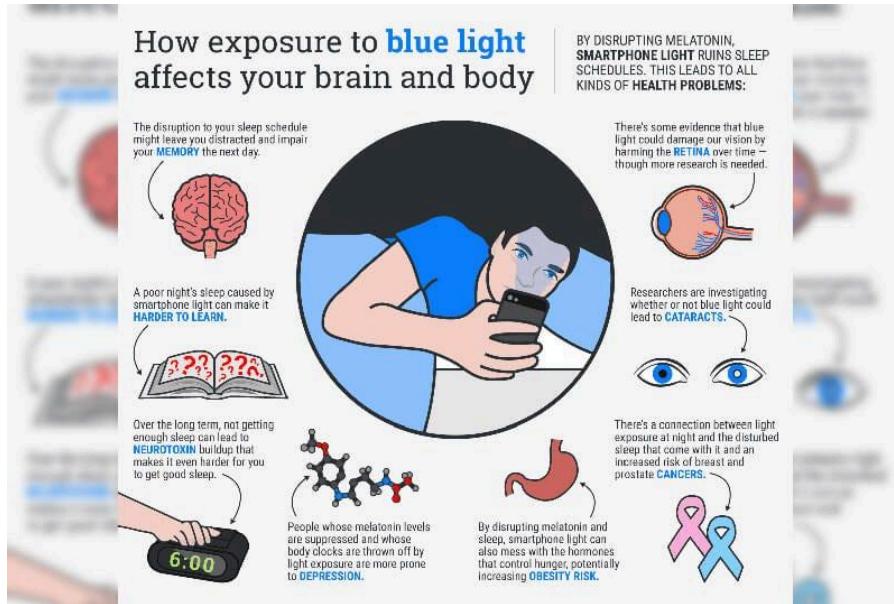
- *The companion app is used to configure the bed's advanced features, such as desired sleep schedule and mood lighting. The companion app can also notify the user reminders to sleep at a given hour.*
 - Optional Moodlighting
 - *Draw-Bed's moodlighting can be configured to a variety of colors and patterns. In larger models, Draw-Bed can detect when one of two users has gone to bed, and notify the other through the companion app, as well as engaging the appropriate mood setting lighting.*
 - Override switch
 - *In the event that the user desires to use the Draw-Bed outside of its configured hours, an override switch can be found on the back of the mattress (outside of arms reach while laying down), which will make Draw-Bed function like an ordinary bed.*
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2. Market Research and Need Justification

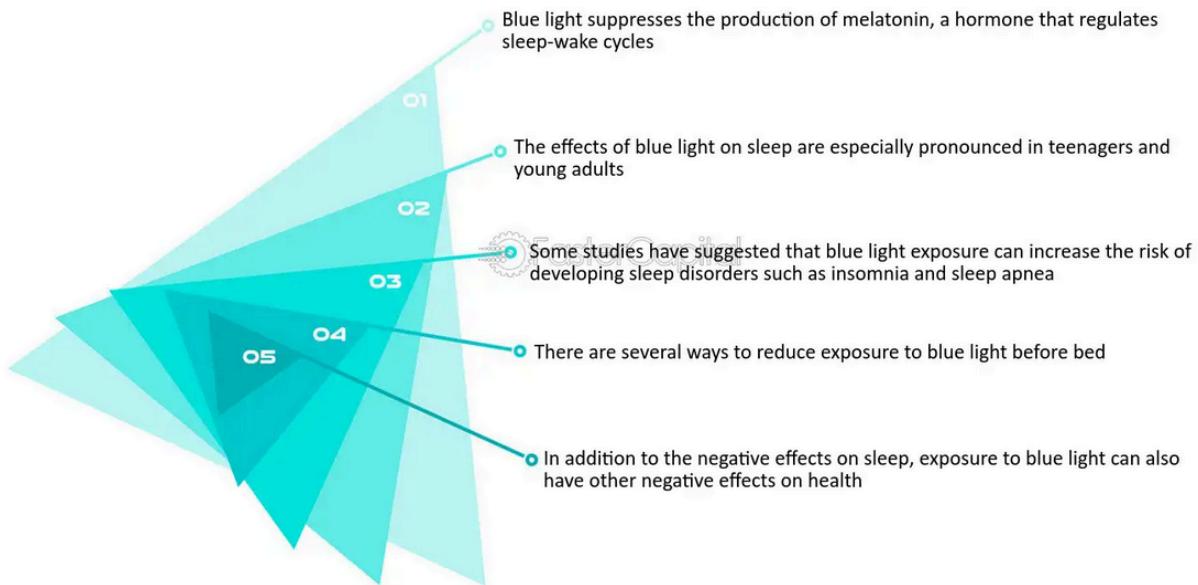
People struggle with getting out of bed and receiving encouragement with regard to sleeping at appropriate times. The Drawbed assists with the persistent issue of people getting out of bed on time and sleeping at appropriate times. A survey from Avocado mattress shows people get up later than intended 8 days a month on average, that's nearly $\frac{1}{3}$ of the time! ([What are Americans' morning struggles? June 2025](#))



This smartbed from Intuz has an AI Chatbot, which is both environmentally unhealthy ([MIT 2025](#)) and known to negatively affect mental health ([SHRM/MIT 2025](#)). Using a digital pet gives a charming and positive means for managing sleep, which is popular both through its closest comparison of Tomagachi ([NY Post, 2024](#)), and using digital pets to track your sleep has proven popular through the high sales of the game Pokemon Sleep ([PocketGamer 2025](#)) and has been reported to help with sleeping consistently and waking up on time ([The Verge 2023](#), [Glamour 2023](#)) and putting it above where you sleep prevents the screen from being used while you are in bed, which can keep you up. (See infographics, ([FasterCapital 2025](#), [Medium 2024](#))



The Effects of Blue Light on Sleep



Americans' Morning Habits



38%

of Americans surveyed
are "bad" at mornings

Respondents get out of bed
later than planned an average of

8 times per month



43%

use an alarm to wake up
in the morning

And their first alarm goes off at

6:33 a.m.



The average alarm user sets two
alarms in the morning, and a fifth
will hit snooze at least three times
before they actually get up

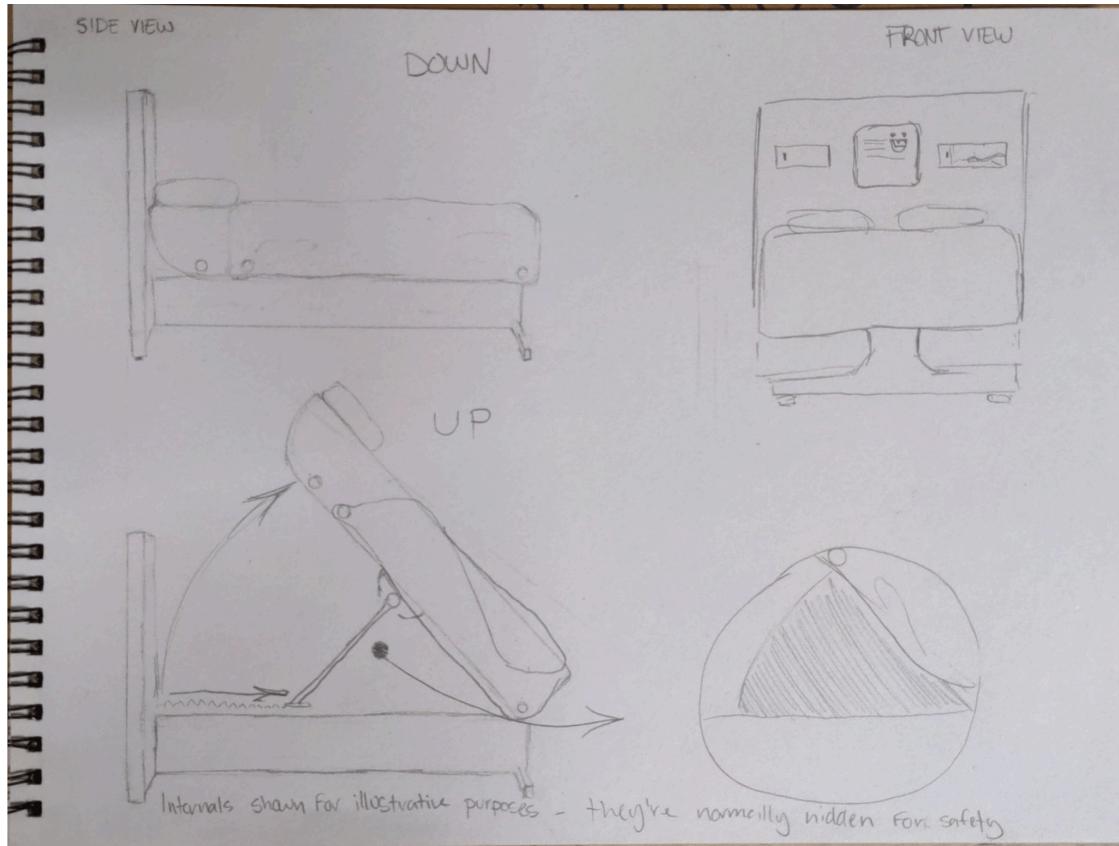


Respondents get about
six and a half
hours of sleep per night

The top reason Americans aren't getting enough sleep?



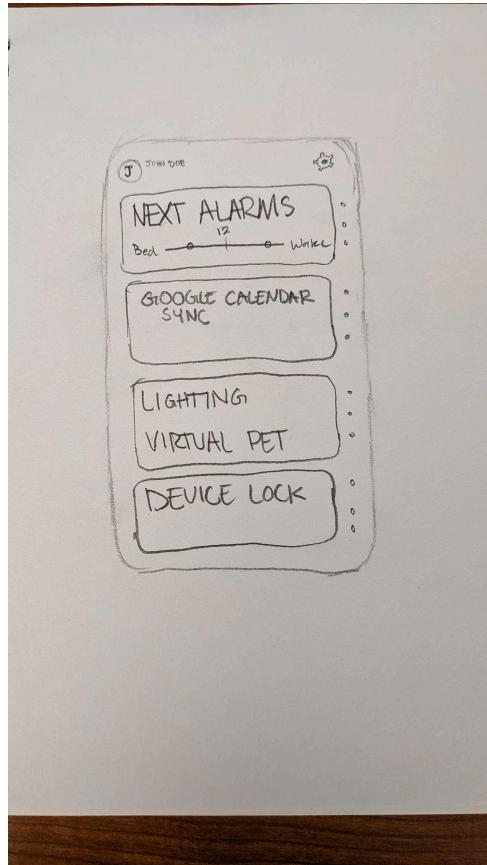
3. Product Description



The DrawBed - a bedframe implement that assists with proper sleeping habits!

- Physically moves the mattress so that the user is forced to wake in the morning - and stay awake until their designated time.
- The bed spends the day upright, and will only recline if linked phones with its companion app have been stowed in its charging receptacle, ensuring you get a good night's sleep without distraction! Phones can be removed for a maximum of 10 minutes without triggering draw bed.
- Comes with a companion app to set bedtime and waketime, sync with your alarms, and plan around certain special events on your schedule. Optionally, forcefully powers down phones and connected devices like headphones and computers, and can send reminders to the user that it's time for bed.
- Drawbed's internals are covered with, keeping pets or children out from under it.
- Has built in storage cubbies
- In case of emergency or extreme laziness, drawbed comes with an override button on the back, which disables the features you paid for and makes it operate like a regular bed.

- Comes in two sizes: draw-bed single and draw bed double, which can have synchronized or asynchronous sleep/wake schedules, and can even notify you when your partner goes to bed.



4. Possible Issues and Counterarguments

The closest real comparison to the DrawBed™ is a commonly used hospital bed. Such beds have a lift capacity of 450 lbs and themselves weigh approximately 170 lbs. The average cost to operate is negligible, approximately \$20 annually. Now, the price of beds of this manner range to the upper 800's at the lower end, and as high as 2,200 for higher end models. An average, non-DrawBed™ bedframe ranged from the lower 100's to the mid 400's, making the cost of entry much higher, and making the cheapest Drawbed™ cost nearly twice as much as the most expensive regular bedframe.

The DrawBed™ also tends to fail to take into account the individual needs of a diverse user base. Specifically, it could be damaging to younger children, those who have recurrent health

conditions which are harmed by DrawBed, such as those undergoing menopause or those struggling with dementia. Furthermore, cases such as couples who will share a bed but might have differing sleep schedules also may not fully benefit from the DrawBed™. Although a “sleep number” type mattress is an option for couples, it does increase the cost.

Users of Draw-Bed must sign a release of liability and should only be used by healthy individuals. A Draw Bed single model will likely cost 800-1100\$, while a Draw-Bed double may be ~1500\$.

5. Conclusion and Recommendations

Reported sleep duration and quality is on the decline ¹ and spending on innovative smart products is higher than ever ². Insufficient sleep quality or quantity has been shown to lead to a cascade of negative effects³. Draw-Bed has the potential to capitalize on both of these factors and improve sleep quality for thousands of people with its suite of definitely proven and effective features. Don’t be a statistic, invest in Draw-Bed today!

6. Appendix

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