

Cradle ^{zzZ}

A friend to help you recharge
Grant Park

Manifesto

Every human needs to sleep. While we still don't know much about why we sleep, we know it is an essential part of our lives. Without one day of sleep, our minds become cloudy and our brain's function is severely impaired. After three to four days without sleep, we start to hallucinate and function at the level of zombies. After one week without sleep, our hearts start to fail and eventually within the next few days, we will die. Even after one day of inadequate sleep, we need days of adequate sleep to fully recover our brain's full function. However, the amount of hours one sleeps isn't the only important factor that determines how we operate the next day—it's the quality of sleep that matters just as much, if not more. Sometimes, a six hour sleep can feel more refreshing than an eight hour sleep, but why is that? While we might not know much about what happens to us physiologically when we sleep, we do know what factors influence our sleep and general physiological patterns observed in different phases of our sleep. But for as long as humans have been around, the bed has always remained the same for the most part: a surface on which we sleep on. Nothing special. Just a bed.

I personally have had troubles sleeping in the past, which led me to question why there has been such little effort dedicated to sleep technology. Looking into devices that could help me get a better night's sleep, I couldn't find anything besides nicer mattresses and rudimentary sleeping gadgets; besides these options, there are only pills. After talking to many other people who expressed similar sleeping issues, I was shocked at how such a prevalent problem had such few available solutions.

With that I present to you the Cradle, a bed that helps you sleep. While it might look no different than any other bed on the outside, it is packed with technology and does all it can to insure a good night's rest. Cradle comes with a suite of features, such as temperature regulation and noise cancellation, and they operate seamlessly to help you sleep soundly without any interruptions. As we know these features can be intimidating to you, we have given you the ability to deactivate or activate any one of these features via the Cradle app.

This bed does come at a price, however, as the Cradle retails for \$20,000 before tax, but wouldn't it make sense to invest in something you spend one third of your life in?

Blueprint

(Full Detailed Design Coming Soon)

Temperature Regulated

An infrared camera located on the rim of the bed monitors your body temperature and sends information to a central processing unit, which can decide to heat or ventilate the mattress surface. You can also use the Cradle app to configure your temperature preferences.

Noise Cancelling

A dish shaped panel located at the head of the bed consists of an array of speakers and microphones which work together to effectively cancel 85% of external noise.

Pressure Relieving

Pressure sensors in the mattress surface monitors the pressure distribution across your body and can gently reposition your body using noiseless motors distributed within the mattress. This feature will only be activated if you are sleeping in an uncomfortable position for an extended period of time. Additionally, there are pressure sensors in the pillow which sends information about your head position to the central processing unit. This unit can use the information from the pillow and mattress to determine the strain on your neck. In order to prevent a neck kink, motors in the pillow can gently reposition your head to a more comfortable position.

Snore Relief/Teeth Protection

From the information from the microphones, the central processing unit can determine if you are snoring and can use the motors in the pillow to gently reposition your head to reduce snoring. In addition, you can purchase the light weight Cradle mouth guard, which can keep your mouth closed to prevent snoring (prevents roll back of tongue) and relieves users that grind their teeth during the night.

Bug Protection

The Cradle bed comes with a mosquito net that can be deployed with a touch of a button.

Phone Connectivity

A wireless charging pad enclosed with a radiation blocking cover is located by the side of the bed can charge your phone and sync with your phone's alarms to wake you up at the most optimal time based on your body movement patterns. The Cradle bed can also read to you missed notifications and recent news when you wake up.

Reading Lights

There are reading lights at the head of the bed that can also turn on if you wake up in the middle of the night to go to the bathroom.

Cupholder

There is an illuminated and secure cup holder located by the side of the bed where you can store a water cup in case you get thirsty during the night.

Cradle Mode

For the nights that you can't fall asleep, you can activate Cradle mode via the Cradle app which can play soothing ambient noises, read a book, gently massage you, or project a light show onto the ceiling via the configurable lights lining the bed frame.

Diagnostics

In the Cradle app, you can view your recorded sleep data and view recommendations based on your current sleep habit. You can also sync your calendar with the Cradle app which can optimize your sleep schedule by giving you suggestions for sleep and wake up times.

Coming Soon

Using low frequency, noninvasive scanning technology, the Cradle bed will be able to take full body scans and analyze your body health condition and give you recommended actions to take.