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SleepTank Feedback with Off-the-Shelf Wearables

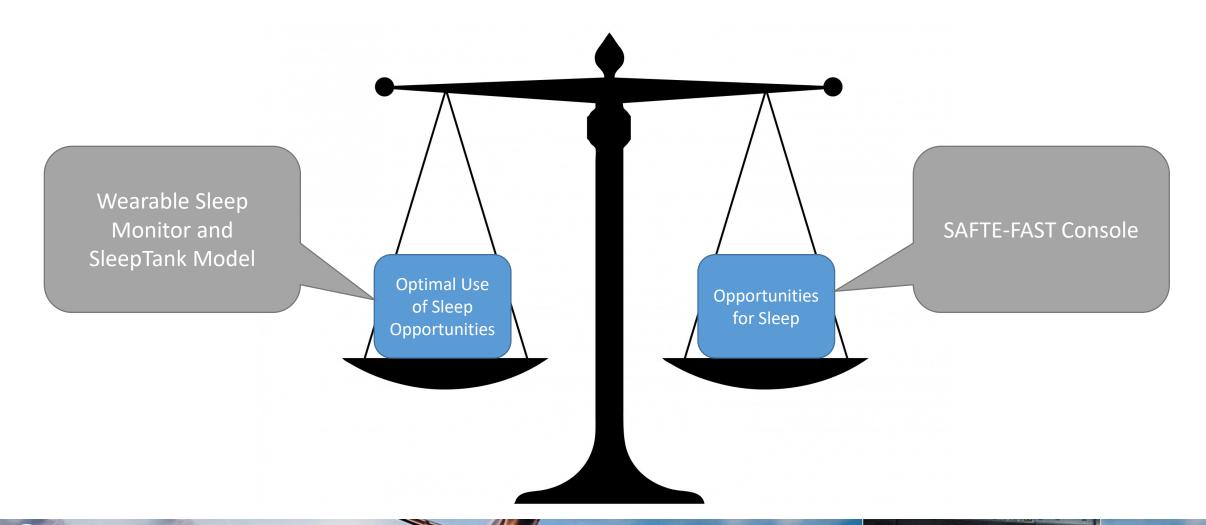
Presented by: Dr. Steven Hursh, Dr. Lindsay Schwartz

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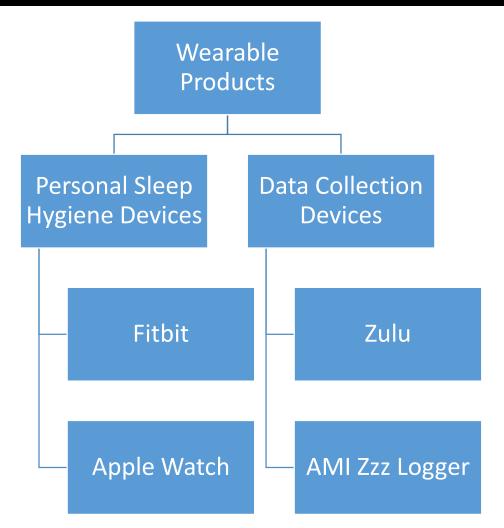
SAFTEFAST Balancing Sleep Opportunities and Sleep Decisions







IBR Wearable Strategy



Personal Sleep Hygiene Devices

Help people maintain good sleep hygiene by providing them with on-wrist and app data feedback

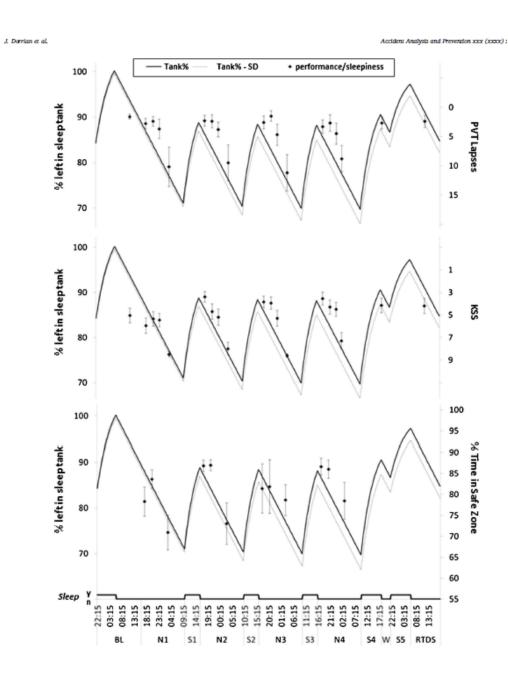
Data Collection Devices

To be used as an alternative data collection tool with study results incorporated into modeling practices in SAFTE-FAST





- SleepTank Metric Validation
 - Validated with actual sleep and objective metrics





- On-wrist intelligence
- On-wrist feedback
- Companion Mobile App
- Fitbit sleep scoring (validated)
- 4+ days battery

SleepTank Exercise

Weather



Timer

Fitbit Versa





- On-wrist intelligence and feedback
- AMI sleep scoring (validated)
- 1+ days battery







Apple Watch: Features

- Apple Watch currently has no native sleep scoring
- The SleepTank app will add these features
 - AMI algorithm to score sleep directly from accelerometer data
 - Validated sleep scoring with off-wrist detection
 - Nap detection to 20 min duration
- SleepTank Algorithm and Information Screens
 - SleepTank Circle
 - SleepTank Warnings
 - Nap Advice, on wrist
- iOS Companion App





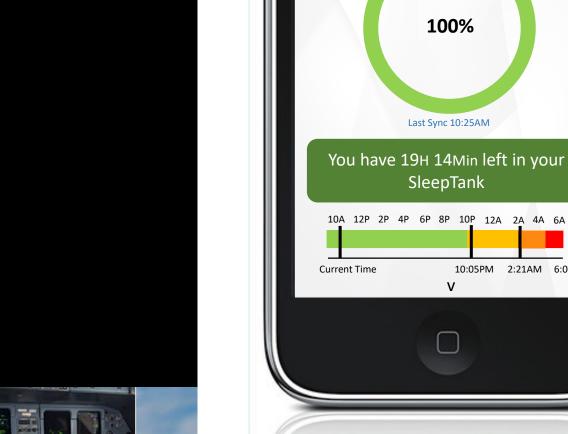
Mobile SleepTank App

- Companion App to be used with a wearable sleep monitor
- Available on iOS and Android App Stores
- Can be used with any Fitbit device that tracks sleep
- Can be used with Apple Watch





- Fitbit Companion Mobile App
- SleepTank Circle **Represents** Tank Level



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History

SleepTank™

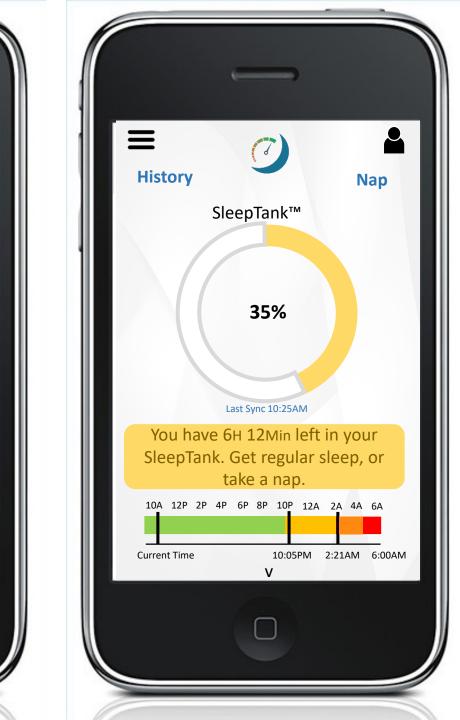
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Nap

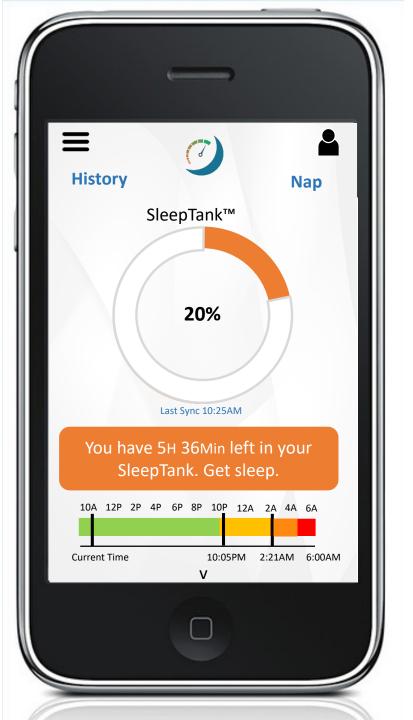
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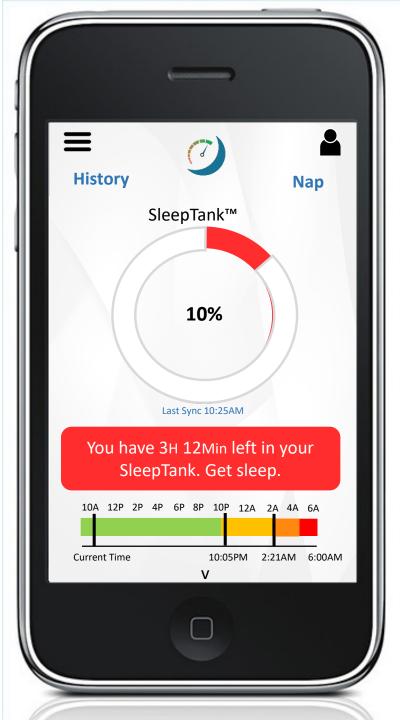




- Fitbit Companion Mobile App
- SleepTank Circle Represents Tank Level



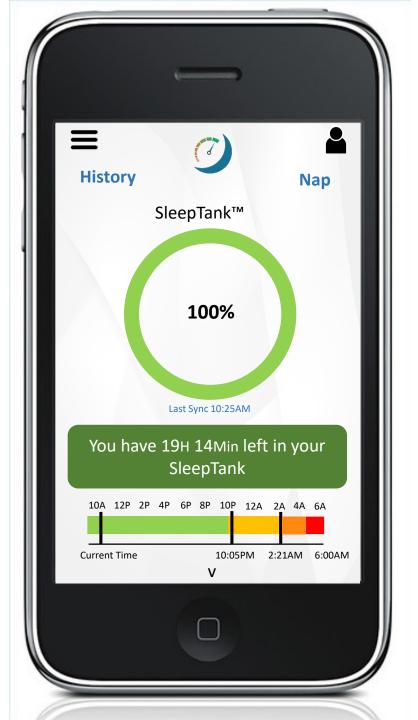






 Fitbit Companion Mobile App

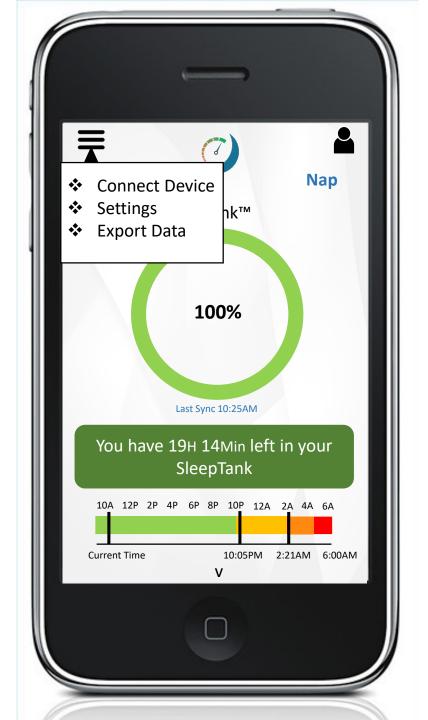
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End App Navigation



- Fitbit Companion Mobile App
- App Menu







- Fitbit Companion Mobile App
- User Profile



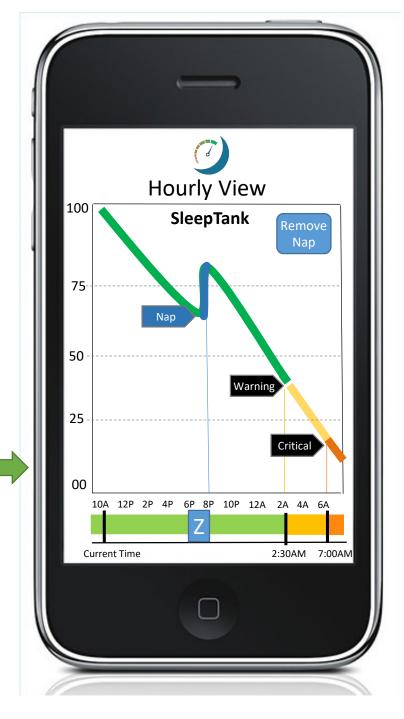




- Fitbit Companion Mobile App
- Nap Advice
- Note: naps under 1 hour must be manually added to Fitbit app

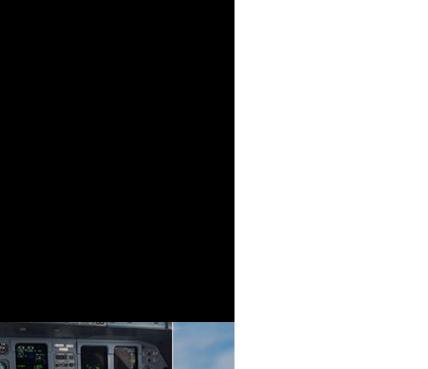








- Fitbit Companion Mobile App
- SleepTank
 Warnings Page







- Fitbit Companion Mobile App
- Low SleepTank Warning





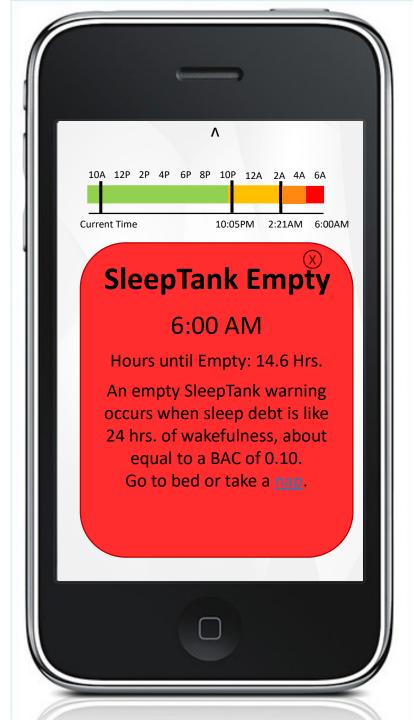
- Fitbit Companion Mobile App
- Critical SleepTank Warning





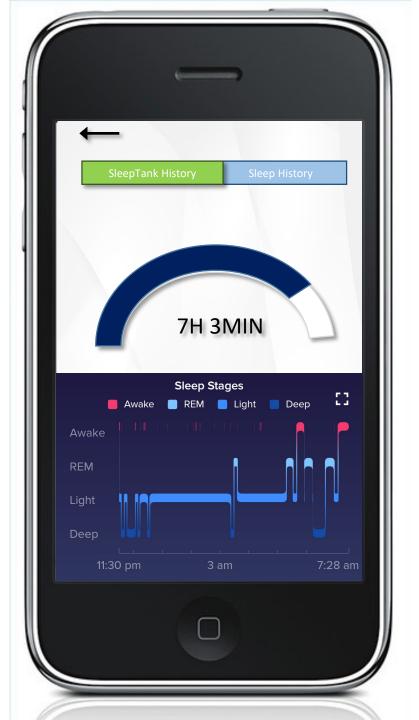


- Fitbit Companion Mobile App
- Empty SleepTank Warning





- Fitbit Companion Mobile App
- Sleep History







- Fitbit Companion Mobile App
- SleepTank History







Wearables for Data Collection

- IBR Zulu Watch
 - Watch and fitness features
 - On-wrist intelligence, companion app
 - Near research grade sleep scoring
 - Positive off-wrist detection
 - Optional SleepTank feedback
 - Syncs to mobile device for data extraction
 - On-demand BLE
 - Rich source of research grade data
 - 9 month+ battery life



- Wristwatch features, step counting
- FDA validated sleep scoring
- On-wrist intelligence for sleep scoring
- Off-wrist detection
- Optional SleepTank feedback
- IR and BLE models
- Rich source of research grade data
- 60 day battery



Launch Plan

- Fitbit SleepTank app is now available for Beta testing
 - Volunteers are welcome we will provide the Versa and the app, user must agree to provide usability feedback – limited supply available
- Once tested, introduce into pilot and corporate groups for individual sleep hygiene feedback
- Watch app will be free
- Companion app will have a on-time fee after a trial period
- Corporate wellness programs can pay for the companion app to encourage utilization
- Long-range plan is to collect anonymous data from sleep wellness tracking

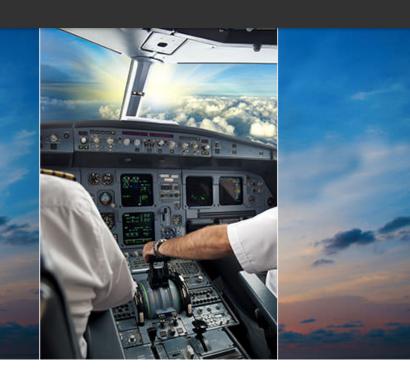






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Questions?

Conclusion of Presentation

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