

Innovations in Seating

The balance of technology vs simplicity

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Foams

- Able to adjust and control individual properties
- Additives can protect and extend application
- Advances in 3D printing



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Gels / Fluids / Air

- High immersive properties
 - Pressure distribution
 - Shear reduction
- Temperature control
- Unique applications and combinations



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Carbon fibre

- Lightweight and strong
- Rigid or flexible depending on how it is constructed
- Advances in materials such as graphene



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Hydroforming

- Allows more complex and specialised shapes
- Eliminates welding and cutting
- Reduced weight, increased rigidity
- Ergonomics



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3D Printing

- Not just for prototyping
- Allows highly individualised components
- Allows small volumes
- Expansion to many materials



3dprintingindustry.com
<https://3dprintingindustry.com/news/now-ca...>
Now You Can 3D Print with Memory Foam - 3D Printing ...
 Web 8 Oct 2014 · Now You Can 3D Print with Memory Foam. Michael Molitch-Hou
 October 08th 2014 - 1:41pm 0 4. Kai Parthy, inventor of the original ...
 Reviews: 4 Estimated Reading Time: 3 mins

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Portable power

- Batteries are becoming smaller and more powerful
- Lasting longer
- Devices can become portable
- Able to use electricity for new functions

Lithium ion Battery



24V 24Ah
 Weight: 6 Lb (3 kg)
 Half size, 1/4 weight Compare to
 Lead Acid Battery

Lead Acid Battery



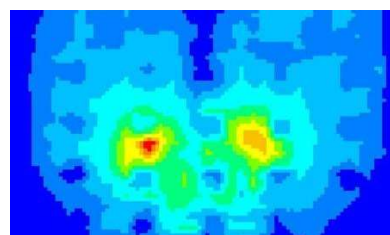
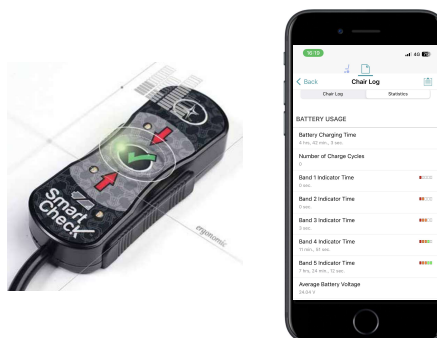
24V 20Ah
 (2 of 12V 20Ah Lead Acid Battery)
 Weight: 26 Lb (12 kg)



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Sensors and Informatics

- Reduction in size and cost allows more integration
- 'Smart' materials
- Deeper understanding can lead to more accurate diagnoses and treatments



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Internet of Things

- Everything is connected
- Information is more accessible than ever
- Remote control
- There's an app for everything



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Virtual Reality

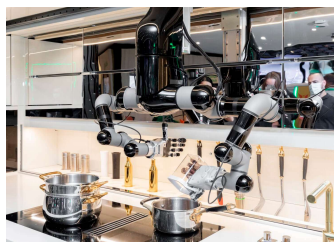
- Worldwide connections without leaving home
- Support network with peers
- Sharing of experiences
- Participating in things otherwise not possible
- Remote consultations



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Artificial Intelligence

- Controversial topic
- Automation of repetitive or trivial tasks
- Safety monitoring
- Virtual assistance



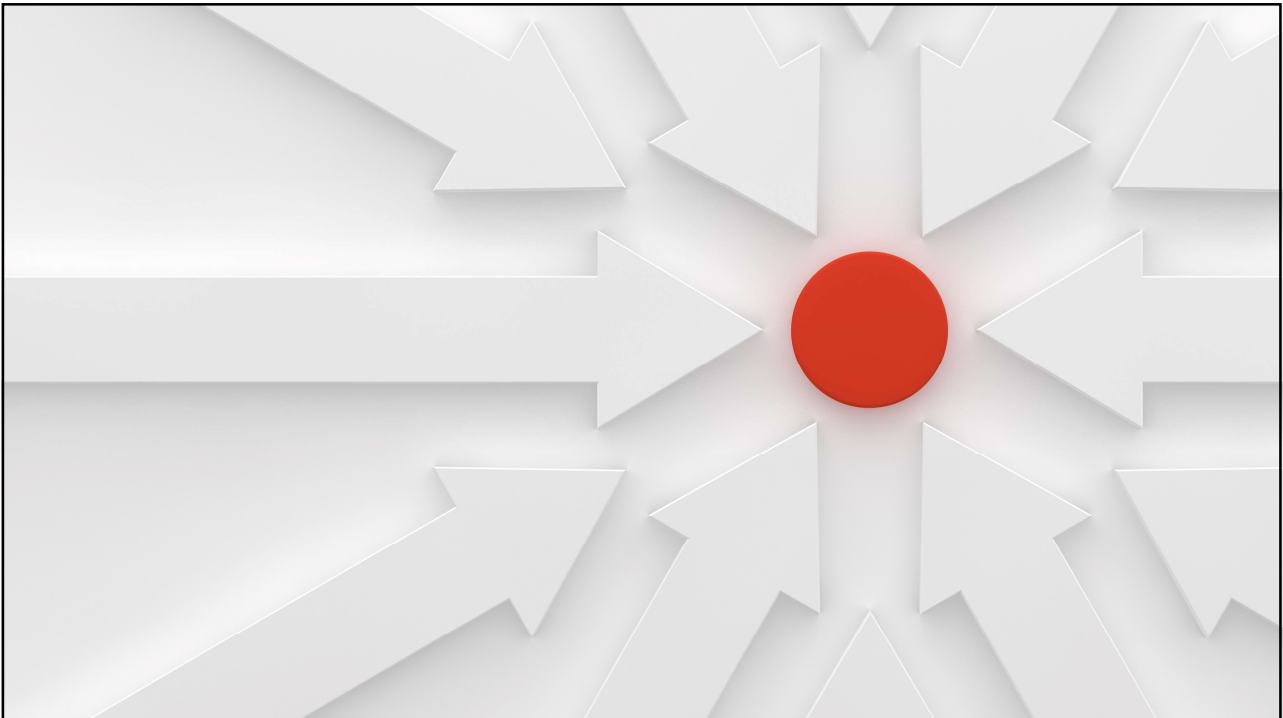
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Sustainability

- Environmental impact
- Sourcing and use of materials
- Refurbishment and re-use



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Keep it simple stupid (KISS)

- Minimise the risk
- Easy to learn
- Simple to operate



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Custom-made products

- Supply time
- Ease of repair or replacement
- Can accommodate changes due to growth or abilities
- Warranty terms
- Risk assessment



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Total cost of ownership (TCO)

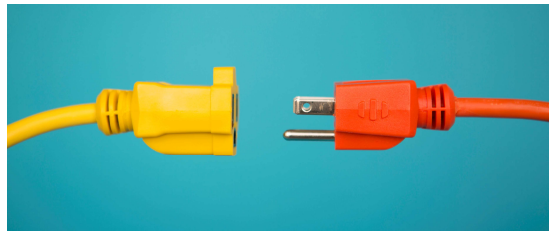
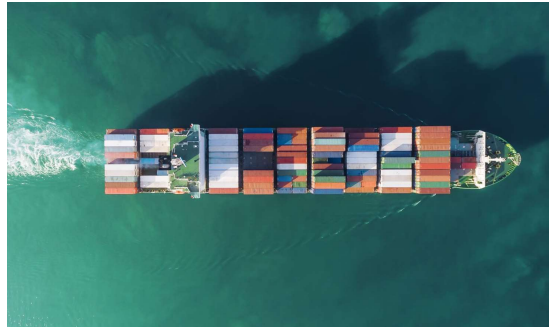
- Funded or purchased privately
- Expected service life
- Warranty period and terms
- Costs of parts and maintenance schedule



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Availability

- Readily available in your area
- Easy to replace or repair
- Complies with local conditions and regulations



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Environment

- Climate
- Temperature
- Storage



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Thank you



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