

Lean Minimal Chair

The lean minimal chair is a tiny, lightweight, foldable furniture product that significantly reduces material waste and shipping volume, allowing it to be shipped flat and quickly assembled.

Modern consumerism takes place throughout the world and between hundreds of different countries. When distributing products across such distances, production and shipping efficiency become extremely important factors. The cost of shipping impacts the purchasing decision of consumers for bulky home goods such as furniture. In addition, companies have the potential to save money by reducing production and shipping costs.

Researchers at Purdue University have developed a lean minimal chair, a tiny, lightweight chair with foldable hinges, which allows it to be shipped flat and constructed in seconds. Production of this minimal chair requires less material, reduces waste, and reduces shipping volume by 50 times. Ideally, this chair will be one of the thinnest and lightest chairs in the world.

Advantages:

- Lightweight
- Foldable
- Reduced shipping
- Less waste

Applications:

- Furniture industry

TRL: 3

Intellectual Property:

Provisional-Patent, 2016-02-19, United States

Technology ID

2016-KIM-67285

Category

Robotics &
Automation/Simulation, Digital
Twins, & Industrial Automation
GreenTech/Circular Economy &
Waste Reduction
Materials Science &
Nanotechnology/Advanced
Functional Materials

Authors

Tong Kim

Further information

Matt Halladay

MRHalladay@prf.org

Erinn Frank

EEFrank@prf.org

View online



Design Patent, 2016-03-29, United States

Utility Patent, 2017-02-16, United States

DIV-Patent, 2018-11-21, United States

Keywords: Minimal chair, lightweight furniture, foldable chair, reduced shipping furniture, sustainable furniture, eco-friendly furniture, reduced waste production, lean manufacturing, flat-pack furniture, Purdue University chair, Furniture, Industrial Design, Materials and Manufacturing