

# CIRCULAR DESIGN PROTOTYPING

## 3D draw bridge

### CHALLENGE

To realize a Circular Designed Prototype ( **CDP** ) of a scale model of an Amsterdam Drawbridge. The bridge should be a combination of 3D printing with bio plastic reinforcements ,whereas some particular parts are being finished with hybrid layers of Clean Tech sustainable materials, like Sizopreg.

### SOLUTION

Flexible hybrid slicing 3D print technology on bio based laminated PLA sheet materials. Due to the patented 3D inlay technology, time saving has been achieved of more than 80 %. Furthermore the design and optics of the bridge improved significantly by using different material layers.

### RESULTS

- Clean Tech production processes
- 3D hybrid printed PLA bridge decking's
- Moveable parts integrated
- G-code converting technology

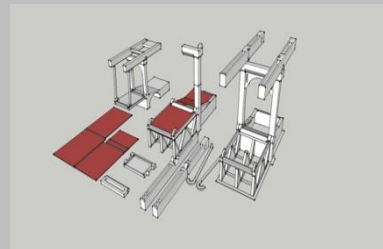


Figure 1

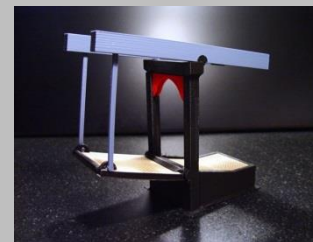


Figure 2

### Key Facts

Partners	<i>Ctrl Design Nijverdal Thingiverse.com</i>
Technologies	<i>3D hybrid slicing design flexible hybrid slicing 3D printing</i>
Features	<i>Cradle to Cradle ®inspired HTL® (natural fibre) PLA material Design for Disassembly</i>
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