



## Request for expression of interest - Integration of HempCrete sprayer with augmented robotics

### ABOUT US

Biomimicry Germany is a non profit company based in Berlin, Germany. You can find more information here: <http://www.biomimicrygermany.de/>

We are a team of interdisciplinary, committed people spearheading the use of Biomimicry (<http://en.wikipedia.org/wiki/Biomimicry>) as a method, mindset, and behavior as well as incorporating it into designs and products.

We typically work with Architects, Engineers, Hardware and software programmers and biologists to develop sustainable technologies and processes based on the systems evident in nature.

For example, we are currently working with a car manufacturer and government authority to explore the reduction of energy usage possibilities using transport systems that are based on dynamic transport flows as found in nature. A 90% reduction in time and energy is possible here we estimate. These types of transport systems are now possible, but held back because of legal, insurance and economic reasons; not for technological reasons.

### EXISTING HEMPCRETE CONSTRUCTION INDUSTRY

HempCrete can provide all the modern performance building requirements with only one material and only one labour process.

However, one of the biggest problems with the process of building with Hempcrete is the labour intensity. Recently Hemp sprayers have come onto the market, and we see this as an opportunity through which we can advance the use of Hemp and HempCrete in the building construction sector.

## PROPOSITION

We are currently looking for companies and individuals that have (or have under development) hempcrete spraying machines. We are also open to persons with ShotCret (<http://en.wikipedia.org/wiki/Shotcrete>) machines or similar that might be adapted as Hemp Sprayers, and would like to work with us towards that purpose.

For sustainability in the built environment, we are mating the HempCrete building material coupled with a robotic application process specifically for the construction industry.

## PROPOSED WORK PROCESS

We anticipate that we can work out the integration of the hemp sprayer to our robotics platform very quickly.

We are able to do most of the technical integration work around the adaptation to the robotics platform. It's also likely we can collaborate with third party universities in robotics to help the process along if needed.

We will use an agile approach whereby we go through 3 phases of analysis, adaptation and testing. Then review the outcome and make adjustments and then go through the process again. This agile process is much more likely to bring the best result.

We understand that persons and organisations will have their own needs in terms of IP protection, etc. A commercial MOU (Memorandum Of Understanding) should be provided by those person(s) that need this, or one can be discussed and worked out.

## SUSTAINABILITY

We are also carrying out a sustainability and economic impact study with this.

Kind Regards

Mr. Gerard Webb (CTO)  
Co-Founder Biomimicry Germany

phone: +49 15 23 18 94 553  
mail: [gerard.webb@biomimicrygermany.de](mailto:gerard.webb@biomimicrygermany.de)  
web: [www.BiomimicryGermany.de](http://www.BiomimicryGermany.de)

Biomimicry Germany e.V. | Amtsgericht Charlottenburg Berlin | VR 32225 B  
Präsident: Dr. Arndt Pechstein  
Vorstand: Dr. Prateep Beed | Gerard Webb