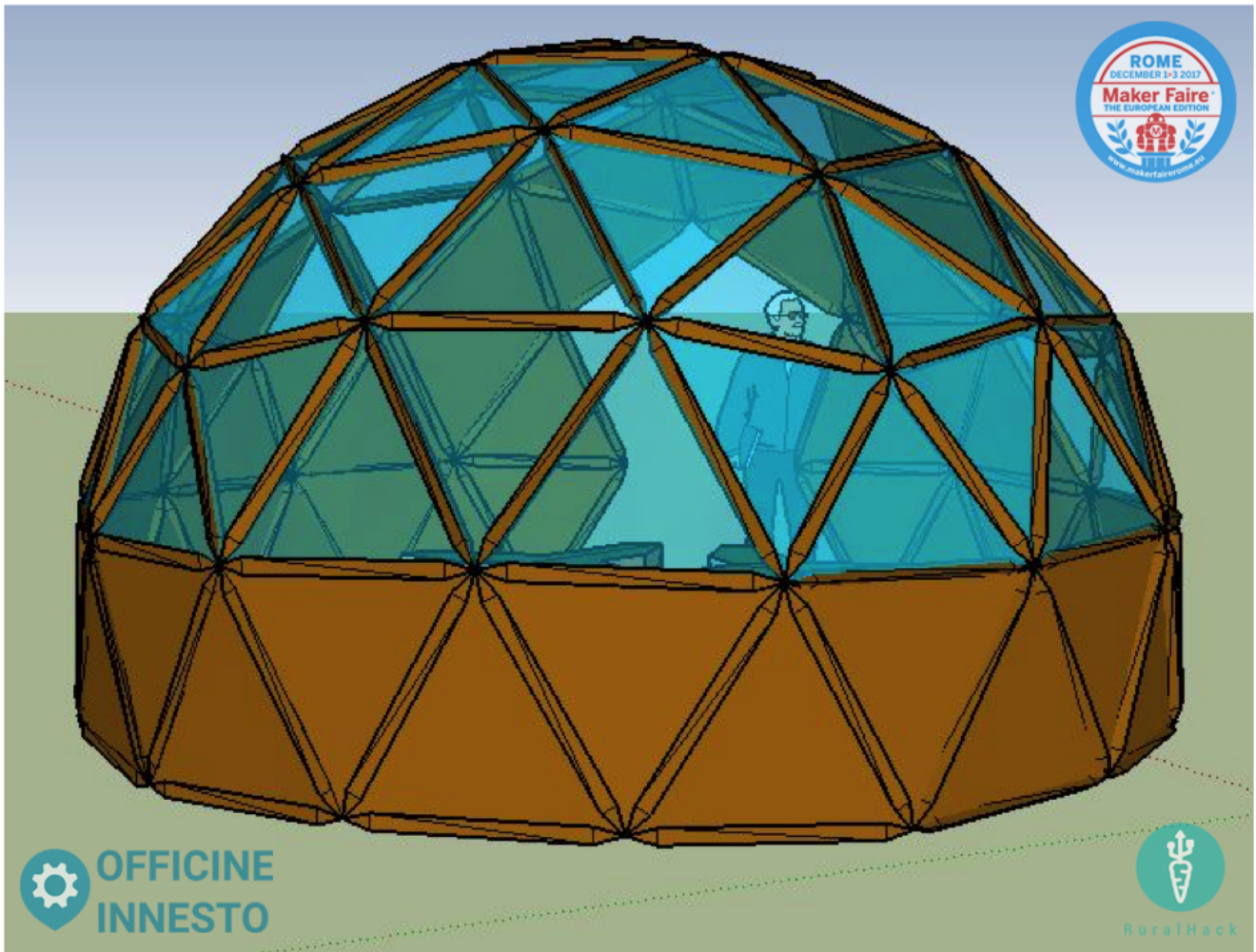


Maker Faire Rome 2017: Making of a Geodesic Dome

November 26, 2017 · admin



The fifth edition of the Maker Faire Rome represents the biggest show in the world dedicated to innovation, together with Bay Area (San Francisco) and New York. It's a fair that put together science, technology, fun and business, and give life to something completely new.

THE MAKER FAIRE ROME 2017

At the Maker Faire Rome you will be able to make a leap in the future between hundreds of innovations never seen before: virtual reality, augmented reality, drones, robots, 3D

printings, enterprise 4.0, IoT, sustainable energy, the cooking of the future, games, innovative technologies for transportations, arts and music.

Maker Faire® Rome

A Kids area even richer for fun and learning for children from 4 to 15 years; a food area, with a lot of innovations dedicated to food and agribusiness and the **House of Drones**, which will host a dense programming of drones performances, both amateur and professionals. And, like always, there will be a dense program of workshops, performances and talks.

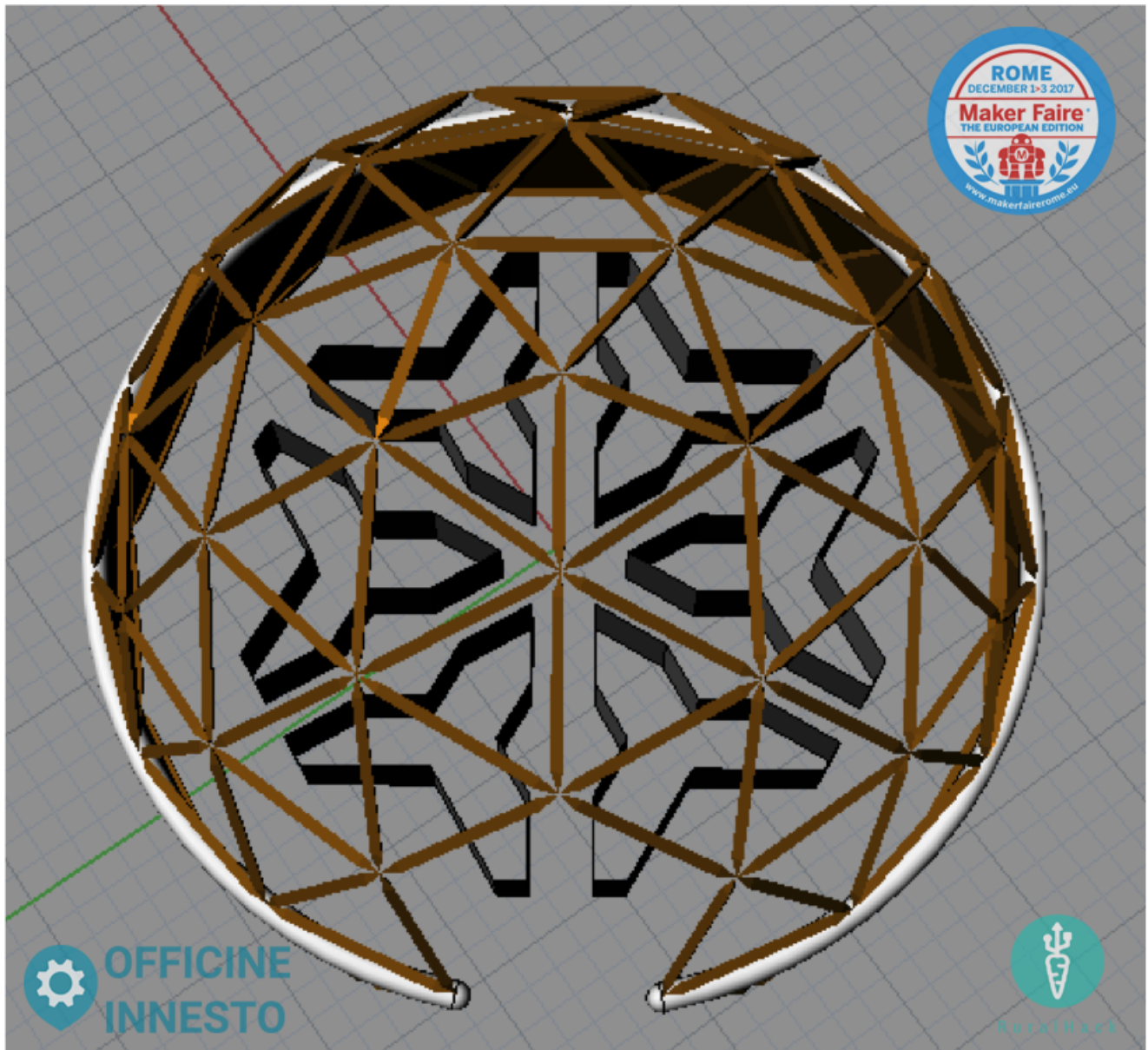
Among the news of this edition will be the RuralHack area, conceived as a meeting place for visitors, technology and agriculture and designed to create bridges between hackers and community, academic research and small/medium agribusinesses, through immediately understandable approaches and economically viable technologies. A place to learn easily, especially for small farmers, to use technology to improve production processes in their own businesses.

Among the curators of the agrifood area there will be our Scientific Director Alex Giordano and Sara Roversi, founder of the Future Food Institute. Thanks to symbiotic work of the curators, the protagonists of the main national and international industry experiences were involved: they will share their path with us to discuss all together what approach best meets the need of the Italian ecosystem: makers, hackers or hi tech?

Among the workshop planned for the RuralHack area: biomimetics and platonic solids – mechanical behavior of reciprocal structure models and geodesic domes + Making of a Robotized Geodesic Dome with Donato Gallo.

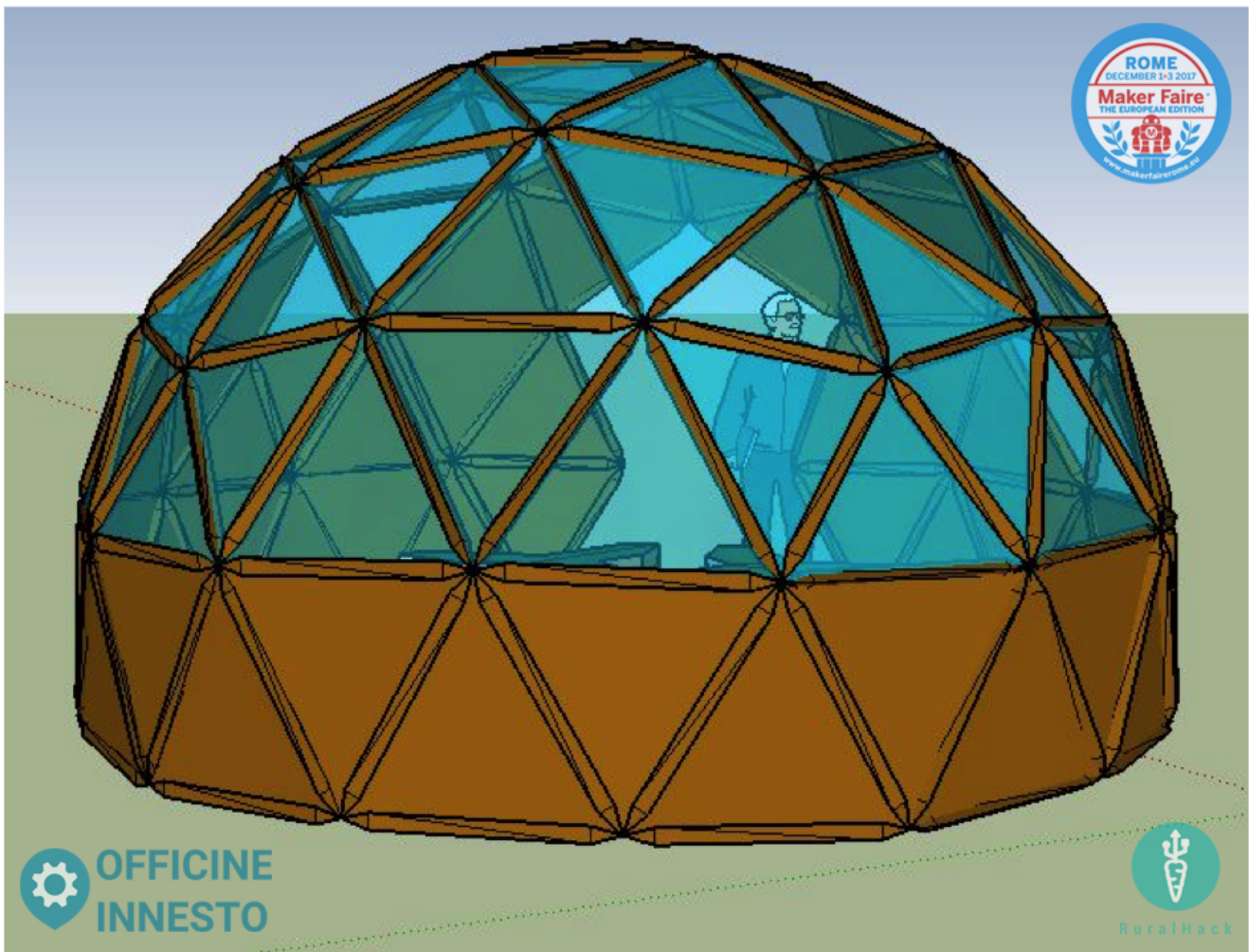
DESCRIPTION: Workshop of self-construction of a geodesic structure intended for greenhouse use with Arduino programming. How to hack a geodesic dome to obtain a self-sufficient automated greenhouse?

We will discover it during the workshop at Maker Faire where we'll create a geodesic greenhouse and then automate it with RuralHack Arduino kit made with Officine Innesto.



The geodesic dome is an invention of Richard Buckminster Fuller, well known american philosopher, architect and designer. His goal was to create a structure that would achieve maximum efficiency as far as the use of resources and energy in concerned. The modular structure and the geometric proportions of the geodesic structures employ some principles in nature such as the series of Fibonacci and the golden section, making it a valid example of biomimetic architecture. The triangular elements that make up the geodesic dome also make it an isostatic structure while at the same time covering the same area as a parallelepipedal structure using about 40% less resources. Its circular shape make it possible to make the most of solar exposure and reduce thermal bridges making it an ideal structure for a greenhouse or to enclose any space – in the city as in the countryside. These principles make the dome not only environmentally sustainable but also lightweight and easily

assemblable, aerodynamic and anti-seismic.



The goal of the workshop is to learn to use their own hands and mind to translate an extremely complex but not complicated mechanics into an accessible and reproducible technique for everyone. Course participants will learn how to design and build a 30mq v3 geodesic dome with renewable resources and low-cost or recycled materials. The main structure is made up of certified FSC (Forest Stewardship Council) timber rods from properly managed and responsible forests with low environmental impact.



After an introduction to the world of geodetic structures we will assemble the wooden dome and then cover it with wooden panels and polycarbonate. During the course at Faire 2017 we will also learn how to implement the geodetic greenhouse with the Arduino RuralHack kit to further improve the efficiency of this facility. In this way, you can handle the greenhouse by controlling the humidity and activating irrigation and ventilation when needed – significantly reducing waste and running times. Through the activation of specific sensors this RuralHack signed greenhouse combines the functionality of nature with today's technology by producing a geodetic dome 4.0.

Join us in the [workshop](#), the registration is free! An opportunity not to be missed to be able to take part in one of the most interesting and dynamic workshops of the fair.

Furthermore, if you buy online the entrance ticket to the [Maker Faire Rome 2017](#) you will be able to discover the future with only 6,00€ for a daily pass. If you buy the three days pass you will pay 16,00€ instead of 22,00€. If you want to buy your entrance ticket please visit makerfairerome.vivaticket.it, choose the "Ridotto Partner" fare and use this discount code:

MFR17HVX6B

Remember: you can use the discount code only for online buy.

Fonte: <https://www.ruralhack.org/en/maker-faire-rome-2017-making-of-a-geodesic-dome/>