



ASLAN DOME

Final presentation

By Team 2

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? Problem &
Objectives

 Project
management

C O N T E N T S

 Marketing

 Sustainability

 Project
development

 Tests &
Results

? Problem

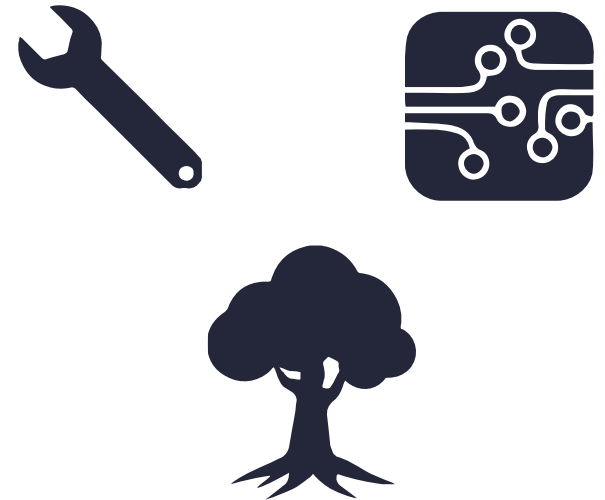
- High use of energy and materials in the world
- Demand for sustainable housing



? Objective

A WOODEN DOME:

- Permanent & robust: *efficient junction nodes*
- Eco-friendly: *sustainable materials*
- Technological: *automatic door and windows*





Project Management

- Useful techniques

- WBS

- R and R matrix

- Insufficiently used techniques

- Risk register

- Stakeholder management



Marketing

→ Multifunctional alternative living environment with a small footprint



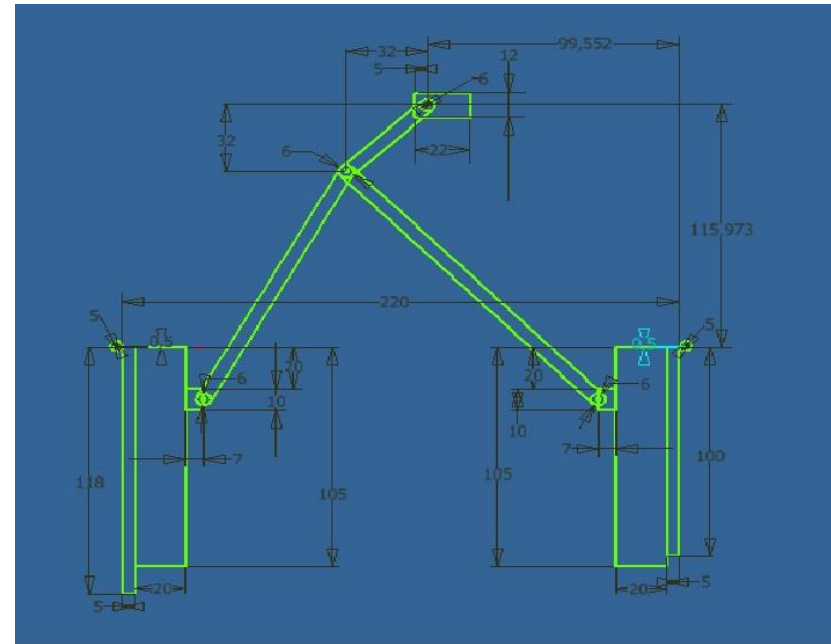
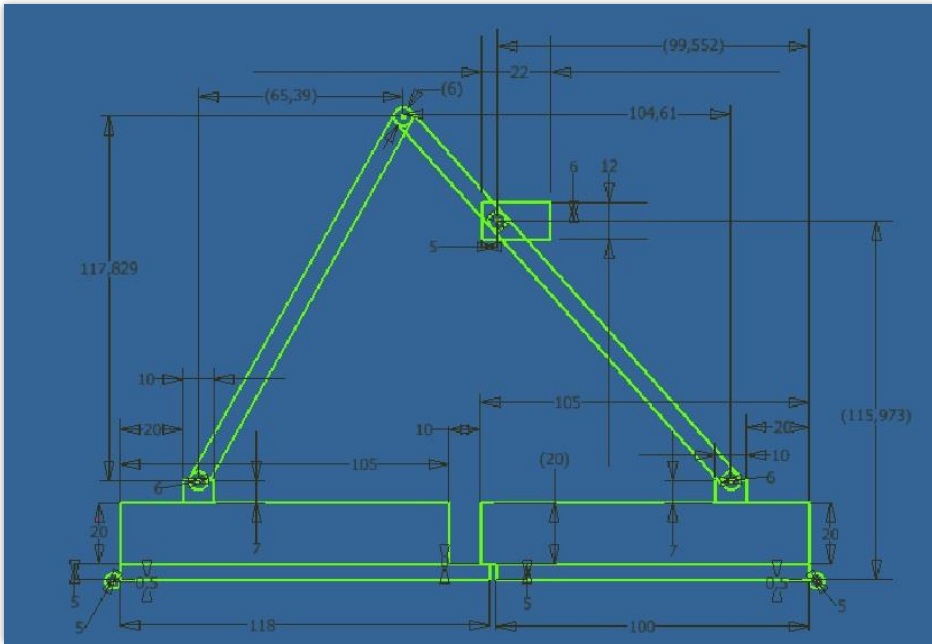
Sustainability

- Sustainability highly valued by the team
- Examples of sustainability measures:
 - Use of oak for the beams
 - Design of the automatic door





✓ *Concept of the door*





Project Development: Automatic Door (2)

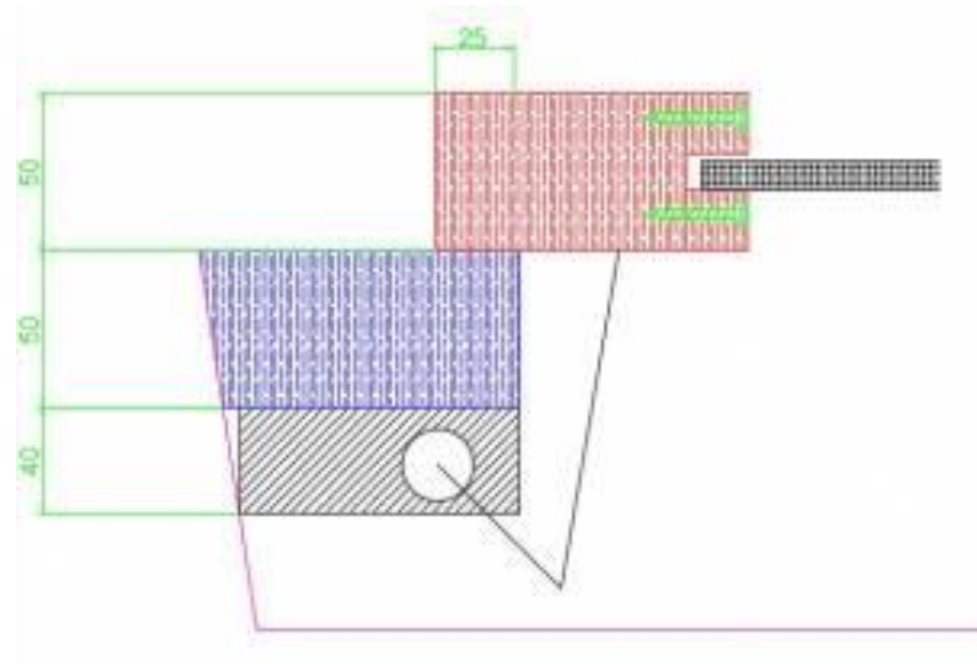
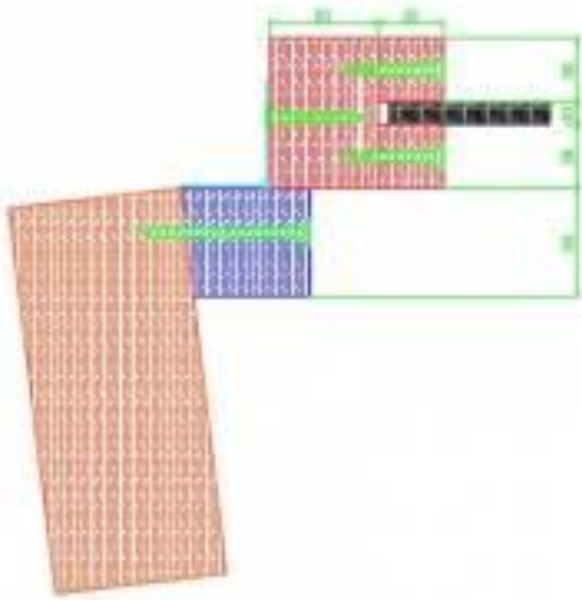
✓ *Door in the scale model*





Project Development: Automatic Window (1)

✓ *Concept of the window*





Project Development: Automatic Window (2)

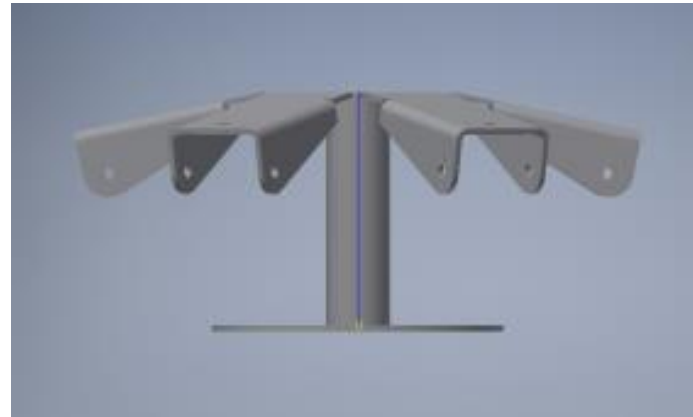
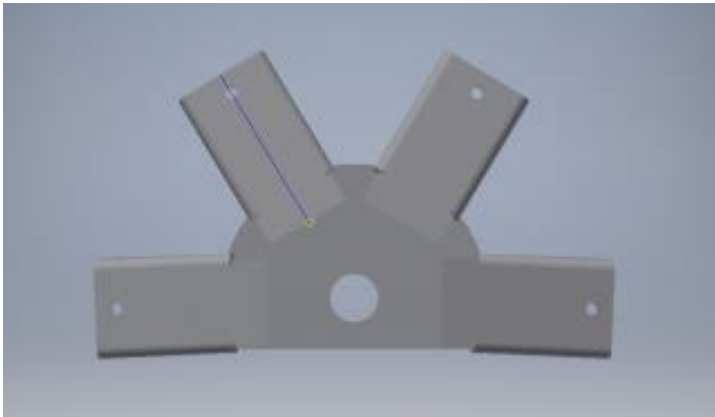
✓ *Window in the scale model*



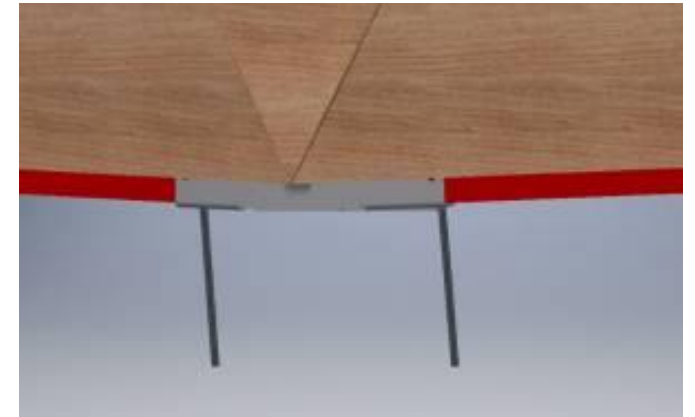


Project Development: Junction Node (1)

✓ *Concept of the junction node*



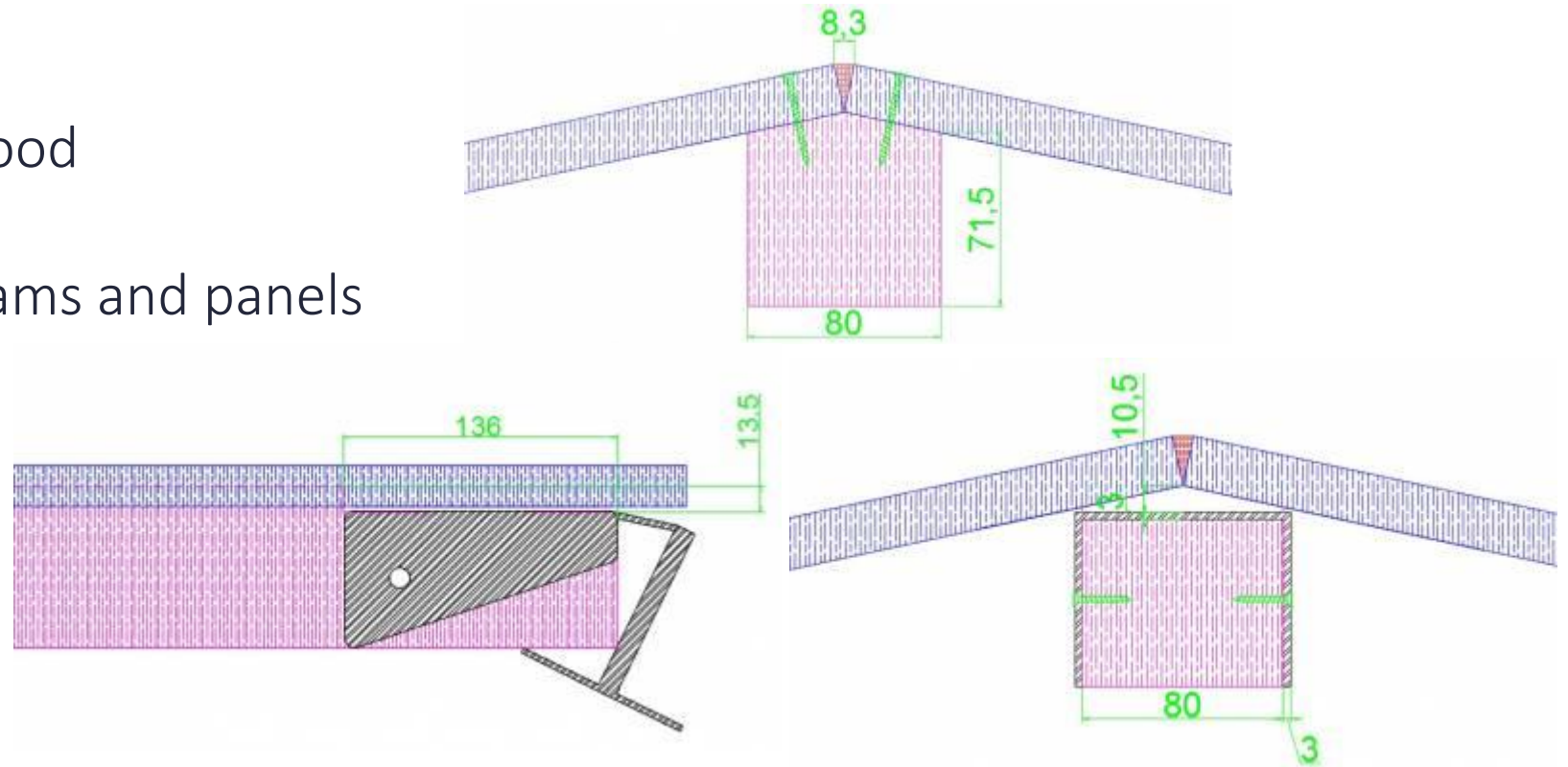
✓ *Special junction node foundation*





Project Development: Junction Node (2)

- ✓ Materials: Oak and plywood
- ✓ Connection between beams and panels

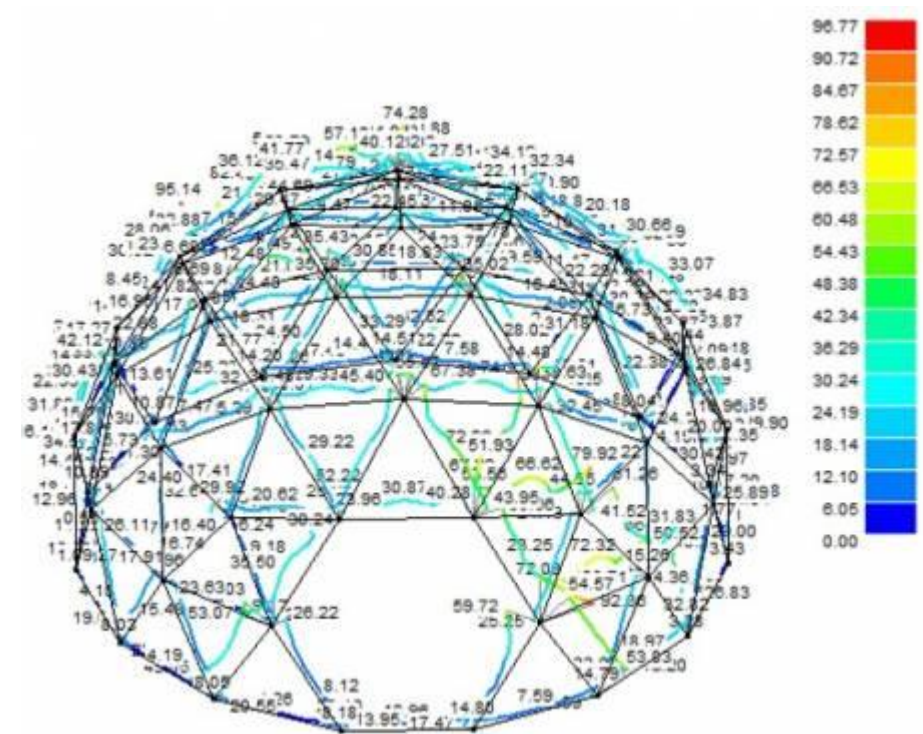




Tests and results (1)

○ Simulation in PowerFrame

→ Result of the optimization process: 80 mm by 80 mm section





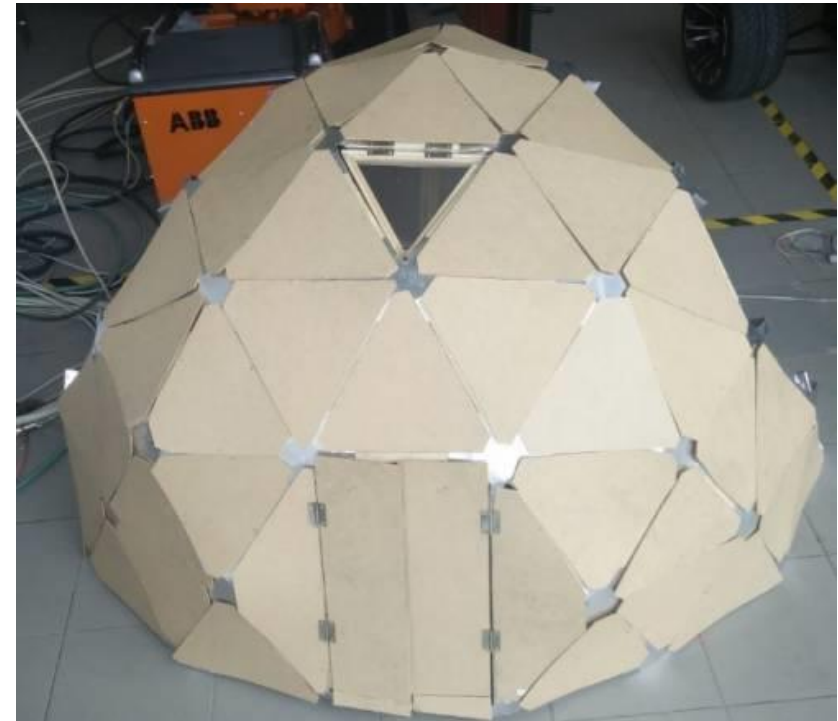
Tests and results (2)

- Points of attention during assembly process
 - ✓ Specific mark for each length of beam
 - ✓ Mark positioning of beam on the junction node
 - ✓ Clear instructions for each team working at the same time
 - ✓ Build the door and window completely before implementation



Tests and results (3)

- Final result of the scale model
- Window and door function correctly





Collaboration
of the team



Problem
solving

C O N C L U S I O N



Acquisition of
new knowledge



Time & budget
management



Discovery of
another culture



Future
development



Future development

- Real conditions testing
- Improve the technological side and the user-friendliness of the product
- Customization
- Improve the interior design
- Implementation of solar panels and the water pyramide designed by team 5



**THANKS FOR YOUR
ATTENTION !**

