The SUTD Gridshell is located at the campus of the Singapore University of Technology and Design (SUTD). It is an innovative architectural project that demonstrates the integration of digital design and fabrication techniques.

**Materials**

The gridshell is constructed using plywood panels and stainless steel plates. The plywood panels are pre-cut to shape and then assembled on site. Stainless steel plates are used to create the grid structure, providing stability and strength.

**Siting**

The gridshell is designed to sit on two points, ensuring stability and load-bearing capacity. This method was selected to avoid the use of additional supports, which would detract from the gridshell’s aesthetic and structural integrity.

**Metal Cladding**

Metal cladding is used to cover the external surface of the gridshell. This not only enhances its aesthetic appeal but also protects the underlying structure from environmental factors.

**Plywood Structure**

The plywood structure forms the base of the gridshell. It is designed to absorb loads and ensure the stability of the entire structure. The plywood panels are arranged in a grid pattern, providing a rigid and strong foundation.

**Assembly Map**

The assembly map is a detailed guide for constructing the gridshell. It provides instructions for assembling the plywood panels and the metal components. The map includes cut-out patterns and assembly instructions, ensuring accurate and efficient construction.

**3D Line Network**

The 3D line network represents the overall structure of the gridshell. It shows the relationship between the plywood panels and the metal components, providing a visual representation of the gridshell’s design.

**Cladding**

Cladding is an essential component of the gridshell’s design. It is used to create a visually appealing surface while protecting the underlying structure. The cladding is made of metal plates that are pre-cut and then assembled on site.

**Modules**

Modules are pre-fabricated components that are used to construct the gridshell. They are designed to be easily assembled and disassembled, allowing for quick and efficient construction.

**Triangles**

Triangles are used to create the grid pattern of the gridshell. They are pre-cut and then assembled on site, forming a rigid and strong structure.

**Forces**

Forces are critical in the design of a gridshell. They must be carefully considered to ensure the stability and safety of the structure. The gridshell is designed to distribute forces evenly, ensuring that no single component bears too much weight.

**Metal Cladding**

Metal cladding is used to protect the plywood structure from environmental factors. It is also used to create a visually appealing surface.

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