

COYO DESIGN CHALLENGE 2020

The Esteem Pavilion

STUDENT TEAM BRIEF



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ESTEEM

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THE TEAM ESTEEM
SOLAR HOUSE



Watch me

CREATING A GREENER FUTURE

The Solar Decathlon Middle East 2020 competition brings together universities from all over the world to design, build and operate a grid-connected, solar powered house.

Heriot-Watt is the only Scottish and UK University taking part, and our friends, their awesome Team Esteem, have made it through to the finals.

These future design, engineering and construction professionals - just like you - have worked with real professionals to create an affordable, energy-efficient house.

The house uses solar energy as the only energy source and is equipped with all the technologies that permit maximum energy efficiency.



**WHAT IS THE SOLAR
DECATHLON MIDDLE EAST?**

Click the link to find out.



YOUR CHALLENGE:

Design the Esteem Pavilion

Team Esteem wants you to design the Esteem Pavilion in Dubai - a solar-powered, highly sustainable building.

A place where new home owners, and their local communities, can learn how living in an Esteem House is just the starting point for a life that is people and planet friendly...

...where climate change issues, and the challenge of the climate, change the way a community works, rests and plays.



WHAT IS A PAVILION?

A Pavilion is a flexible free-standing building that invites people to come in and spend time in it. Click the link to see amazing examples.



PROJECT TEAM

Find out about the roles below and how they get involved in the design of a building. Focus on them when designing your pavilion.

Architect, Architectural Technologist, Structural Engineer, Civil Engineer, Building Services Engineer, Facilities Manager, Interior Designer, Landscape Architect, Project Manager & Quantity Surveyor.

Form your own Project Team each taking on a different role.

Collaborate in real life, or online using digital tools and video conferencing.

Think about the bigger picture

- **What** would you teach a whole community of Esteem House buyers to 'think green'?
- **How** would you teach a whole community of Esteem House buyers to 'think green'?
- **Who** might buy an Esteem home? Remember, a community is made up of lots of different types of people with a range of needs.

ESTEEM PAVILION LOCATION:

Mohammed bin Rashid Al
Maktoum Solar Park,
Seih Al Dahal, Dubai

Discover more:

<https://youtu.be/8lkcz4UA5ml>

Terrain: Flat, desert



ESTEEM PAVILION PLOT:

*Maximum area allocated for the Esteem Pavilion and grounds:
20m x 20m = 400m²





MAKE IT
A BIT
SPECIAL

DELIVERABLES:

Digital concept model, plans and elevations

To really bring your Esteem Pavilion design to life (and make it easier for the judges to understand your ideas) your team should produce a concept model, floor plans and elevation.

Scale model

Add a little 'something extra', by producing a physical model of your design. This is a great opportunity to get recycling.

You can send photographs with your initial entry. Just remember, if you get to the finals, you will need to bring it with you, so think about size and how you're going to carry it.



Professional report - maximum six sides of A4

Tell us about your Esteem Pavilion in Dubai:

Who will use it and how?

What will it teach Esteem home owners and their families?

Describe your building:

How big is it?

How does it cater for ALL the community?

What is it made of?

What happens when the building comes to the end of its life?

There are a few things to consider:

1. The Esteem Pavilion is in the desert. It's generally hot and arid but temperatures can change throughout the year. What design, engineering and construction challenges might you face?
2. It must be inclusive.
3. It must promote sustainable everyday living.
4. It could showcase technology to improve people's lives - what might you include, or even invent?

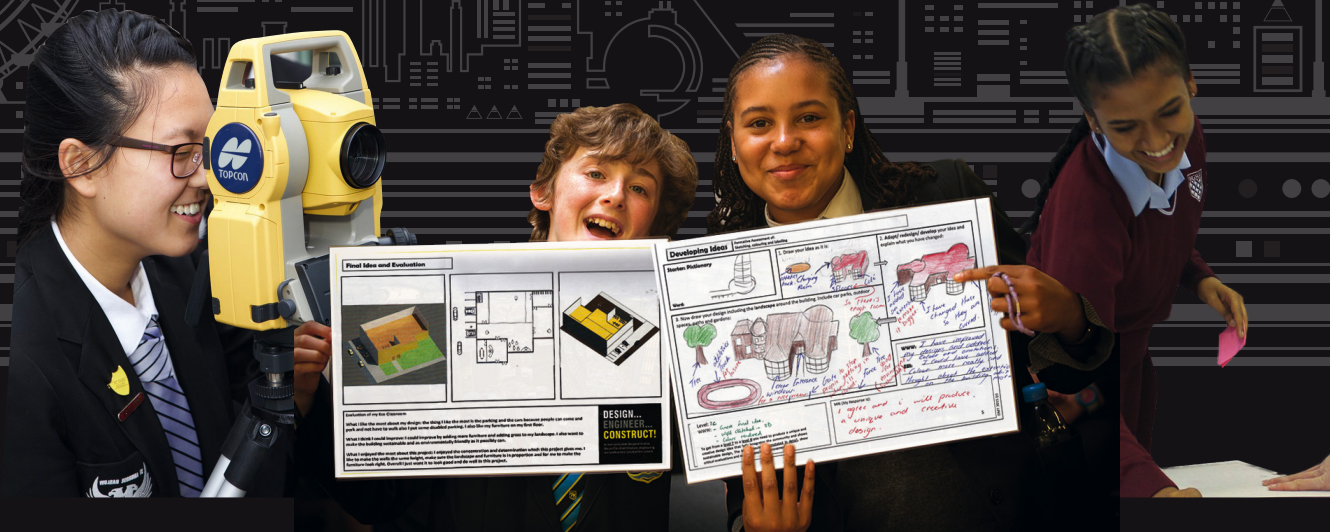
TIME TO REFLECT...

What did you LOVE about this challenge?

What did you learn about yourself, as you got a taste of life as a design, engineer and construction professional in the Digital Built Environment?

How do you feel about having a professional career imagining and creating real hotels, houses, hospitals, airports, roads, bridges and superstructures around the world?

There's so much more YOU can do at school or at home to experience life as a Digital Built Environment professional.



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DESIGN AN UNDERGROUND HOTEL

DESIGN STUDENT ACCOMMODATION

