ESS 131 Project
Description

This will be an electronic product so use a Power Point Template to develop this.

This will be an electronic (digital) product
ESS 131 Project
Overall Description

• A sustainable, innovative watch design
• Where are you manufacturing it?
• What movements (Calibres) will you use?
• What materials will you use to manufacture it (especially the case, dial, hands and strap)
• Where will you source the materials to make the case, dial, hands and strap?
Bulova Accutron

Spaceview

Uses a tuning fork

Accurate to less than one minute per month

Affordable
Product Description and Location (20%)

• Explain the concept of your watch.
• What watch niche market will you exploit ... cheap, good value, luxury, very high luxury?
• Why do you think it is unique?
• Why do you think it will sell?
• What sort of person will buy your watch?
• Give exact details of where your main assembly factory is /
Aerides Watches Αερίδες

• Based on the Octagonal Marble Clock “Tower of Winds” in Athens of Ancient Greece.

• On each side of the Tower was a GOD representing the Direction of Wind.
• “Tower of Winds” built in the 2nd century BCE, it once had nine sundials and contained a large water clock.
• Was the world’s first Meteorological weather station.
• Consequently has great significance in the history of time keeping.

• Aerides Watches are based on the classical inspiration of Ancient Athens the birth place of modern democracy.
• They will be aimed at luxury markets using refined and re-polished Swiss Automatic movements (Hour, Minute, Second and Date ETA 28-24 -2)
• With the best of ancient and modern technology
• Produced in limited numbers
Why Aerides watches are unique?

- First brand to be based on Classical Mythology and Science
- Will combine “Bronze” of the ancient world with Anodised Titanium of the modern world.
- All watches will be based on a circular design with a pronounce “Octagon”
- Unlike most watches – the accessorisation of the watches is the main selling point.
- A huge range of watch straps will be available and each watch comes with a choice of three straps in the purchase price.
- Watch straps simple slide into grooves in the watch case and is similar to Apple Watches so in a matter of seconds a new look can be made to your watch.
- The anodisation of the Titanium can produces infinite colour shades so each watch case will have a unique appearance.
- The watch face can be separated from the case so you can purchase new cases but keep the same watch face.
- There will be eight watch faces representing one of the eight ancient Wind Gods (Anemoi). The eight faces will be sufficiently different to suggest a new watch.
- The watches will only be sold via the Internet avoiding Middle Men.
- Using industry standard watch calibres (movements) means the watch can be serviced by normal watch makers and will ensure the watches will last long enough to be an inheritance to your child and even grand children. The long service life is our approach to uses less of the World’s resource and to be responsible global citizens.
- The Modular design means the watches can be updated with fresh designs and therefore remain contemporary.
- They have unisex appeal and be produced in three sizes, namely 34 mm (Women) 38 mm and 41 mm ensuring that all wrists are catered for. If a return to large watches become fashionable the design is scaleable so 46 mm watches could be accommodated.
- Future models could include a GMT function, Alarm function or a Chronometer, function but you only buy the watch core and slip it into an existing case with your already existing straps.
- These watches should be popular as they are fashion statement that can be updated and mixed for a coordinated look. In this way a small manufacturer can produce a lot of choice for its clients.
Product Drawing (30%)

• Please prepare digitally complete set of drawing of your watch.
• You will need to use several drawing so the viewer gets an understanding of it and its uniqueness.
• Ensure you have designated it with a name and a logo
• The design must be original, you may however, use templates and if there is no option use graphics that are not your own.
• Please indicate by way of labels and text boxes the overall concept of the watch.
Hexagonal Design reflecting the Wind Tower

Modularity

Each movement watch unit is housed in a surgical steal case.

The movement unit can be fitted into different watch cases and retained by a stainless retaining ring.

Straps can be hot swapped.
Left Side Crown so it does not dig into the Wrist

A push button allows the strap to be slide out and easily replaced

A Hexagonal case is hand anodised and markings laser etched so as to produce a unique look from classical to wild pop!

Each of the eight gods will be sculpted 18 K cold or Platinum

Hexagonal Date window

Steel Blue hands

Numbers laser etched into the Sapphire glass

A circular movement unit wrapped in polished surgical stainless steal fits into the hexagonal Titanium case.

Highly polished Stainless steel bezel inset into the Titanium case

FRONT VIEW
Modular Calibre (Movement) A circular movement unit wrapped in polished surgical stainless steel fits into the hexagonal Titanium case.

Etched and polished parts to the ETA 2824 Movement so the back of the watch is as beautiful as the front.

Modular Calibre (Movement) A circular movement unit wrapped in polished surgical stainless steel fits into the hexagonal Titanium case.

Available in three sizes:
- 41 mm
- 38 mm
- 34 mm

BACK VIEW
Titanium anodising/etching effects

Source: [https://www.youtube.com/watch?v=RE3la6nuaRs&t=314s](https://www.youtube.com/watch?v=RE3la6nuaRs&t=314s) (Chameleon metal it is named after the Greek Mythology.

Watch Titanium – Metal of Gods ... Documentary on use of Titanium in high fashion [https://www.youtube.com/watch?v=CLLFNmTVmpQ&t=135s](https://www.youtube.com/watch?v=CLLFNmTVmpQ&t=135s)

Working with Titanium is more carbon friendly than steal

Titanium is inert to the body limiting chances of skin allergy.
Modularity

Each movement watch unit is housed in a surgical steal case.

The movement unit can be fitted into different watch cases and retained by a stainless retaining ring.

Straps can be hot swapped.
Eight Designs to reflect each of the eight Greek Wind Gods using a different face material.
Location of my Factory

Located in Avenue Robert Fontainemelon, Canton of Neuchâtel, Switzerland, Western Europe

Will purchase **JF Automobiles Sàrl** building which is close to the ETA Watch movement Factory
Aerides Watches
Located in Avenue Robert Fontainemelon, Canton of Neuchâtel, Switzerland, Western Europe

Location of my Factory

Factory Site
Aerides Watches

Location of my Factory

Located in Avenue Robert Fontainemelon, Canton of Neuchâtel, Switzerland, Western Europe

Will purchase JF Automobiles Sàrl building which is close to the ETA Watch movement Factory

Swiss Made
Identification of all materials used and their location (10%)

- Which watch calibre (watch Movement) will you use (example ETA 2824)
- How will the case, face and glass (crystal sapphire or plastic or mineral glass) be constructed?
- How will the watch hands be made?
- What strap design and materials will you use?

**ETA** Automatic/manual
**Miyota (Citizen)** Automatic/manual
**Ronda** Quartz
Chinese standard movement **Tongji**
There are others too

**CASE/HANDS**
Stainless Steel
Wood
Titanium
Precious metal
Plastic Resin

**Face**
Be Innovative
I am looking for fresh ideas.

**STRAP**
Stainless Steel
Leather
Nylon
Wood
Titanium
Precious metal
Plastic Resin
Composites
Aerides Watches

Components of the watch

The hands will be heat treated to produce “blue steel” this called tempering and to do properly is quite complicated.

These hands means no painting is required (to flake off).

Antique style hands

Hand looks like Zeus’ lightning bolt

Minute Hour Second

Niobium

Eurus

Ευρυς

Titanium is sourced from Russia “Titanium Valley” in Sverdlovsk Oblast.

Sapphire Glass artificially created substance and only second hardness to diamonds. It will be laser etched.

Watch Face made of Niobium It will be sources from Brazil.
Material Flow Analysis: Maps showing your sources of identified material and the means of transport (10%)

To illustrate I will take the watch face which is produced from Niobium from Brazil and supplied by: CBMM

Niobium is mined Araxa and transported by Road to Rio de Janeiro

- Try to minimize distances
- Try to use boats to minimize carbon
- Avoid using aircraft (highest carbon)

Maps must be done electronically using Power Point Edit tools over Google Maps or Google Earth
Location of my Factory

Located in Avenue Robert Fontainemelon, Canton of Neuchâtel, Switzerland
Road Transport Niobium from Araxa Mine to Rio Janeiro

- Take Av. Dâmascos Drumond and R. da Banheira to BR-146
  - 7 min (3.1 km)
- Follow BR-262 and BR-040 to Av. Brasil in São Cristóvão, Rio de Janeiro. Take the exit toward Avenida Pedro II from BR-101
  - 10 h 14 min (786 km)
- Continue on Av. Brasil. Take Av. Rodrigues Alves and Túnel Prefeito Marcello Alencar to Av. Pres. Antônio Carlos in Centro
  - 10 min (7.8 km)
Environmental Consideration (10%)

- Reducing water
- Reducing Energy
- Using Renewable materials
- Environmental Conscious Packaging
- Environmental Labelling
Corporate Citizenship (10%)

• Mission Statement
• Vision Statement
• Corporate Social Responsibility
Rubric

• Description and Factory Location  20%
• Drawings 30%
• Description of Material 10%
• Maps of Routes 10%
• Environmental Considerations 10%
• Corporate Social Responsibility 10%
• References 10%