

# **“Scrapyard Scramble”**

## **DESIGN BRIEF**

---

### **SCENARIO**

**You have been asked by EWB-UK and EngineerAid to assist the UN department for aid to assist with the relief efforts in Aping where currently civil war has broken out forcing thousands of citizens to flee to neighbouring countries. Currently Jping is hosting several thousand refugees in camps and is urgently in need of latrines for these camps.**

**It is a semi arid country with stony soil; therefore the standard pit latrine is not appropriate for the terrain as digging deep holes would require heavy machinery which is unavailable and would demand high import costs. In order to prevent further spread of disease, which is already rife in the camps, basic sanitation facilities are urgently needed.**

### **YOUR TASK**

**To design a transportable flushing toilet that can be easily reconstructed for use in the refugee camp. Upon arrival there will be no access to power tools as there is no electricity available and you must note that whilst a water supply has been sourced it is a hot country and water usage is limited and to be kept to a minimum. The following points must be adhered to in the design and the selected design will be the one which meets as many of these criteria as possible:**

- 1. Load restrictions require that toilets are able to be transported meeting the loading size restriction of 0.5x0.5x1m.**
- 2. Use of local and recycled resources with the hope that once the initial batch of latrines have been made and sent out that it will be possible for locals to construct more toilets as required in Jping.**
- 3. Low material costs.**
- 4. Minimal water required.**
- 5. Easy to deconstruct, transport and reconstruct as refugee camps are often temporary and the aid budget cannot stretch to provide new toilets at every location**
- 6. Your toilet is to be fitted with a full flushing mechanism as due to soil restrictions for pit latrines this is the only way to hygienically dispose of waste and prevent the spread of disease. Each team will be given a 2l jug of water to flush, however minimum water usage**

**is obviously a huge advantage to the design. The flushed product will be collected in a separate 20cm high tub.**

- 7. You will be allowed to bring with you a hammer, nails, screwdriver, screws, scissors, and of course duct tape!**
- 8. Beware the refugee camps are crowded and busy. Underfoot terrain can be slippery due to monsoons. Good footwear and sensible clothing are essential.**
- 9. And of course imagination is essential!**

**PLEASE SEE THE ATTACHED SHEET FOR FULL SAFETY GUIDELINES AND DETAILS REGARDING THE PROCEEDINGS FOR THE DAY.**

**Good luck!**