



Project Title: **Personal Alarm (Rapid Prototype)**  
 Students Name: **Pauline McLean**  
 Level: **HND Year 1**  
 Course: **Highrer National Diploma**  
 Advisor/Instructor: **Adrian M. Augusto**  
 Principal Investigator: **Adrian M. Augusto**  
 Department / School: **Product Design Department, School of Design**  
**Faculty of Education, Humanities and Creative Arts**  
**James Watt College,**  
**Geenock, Scotland, UK**

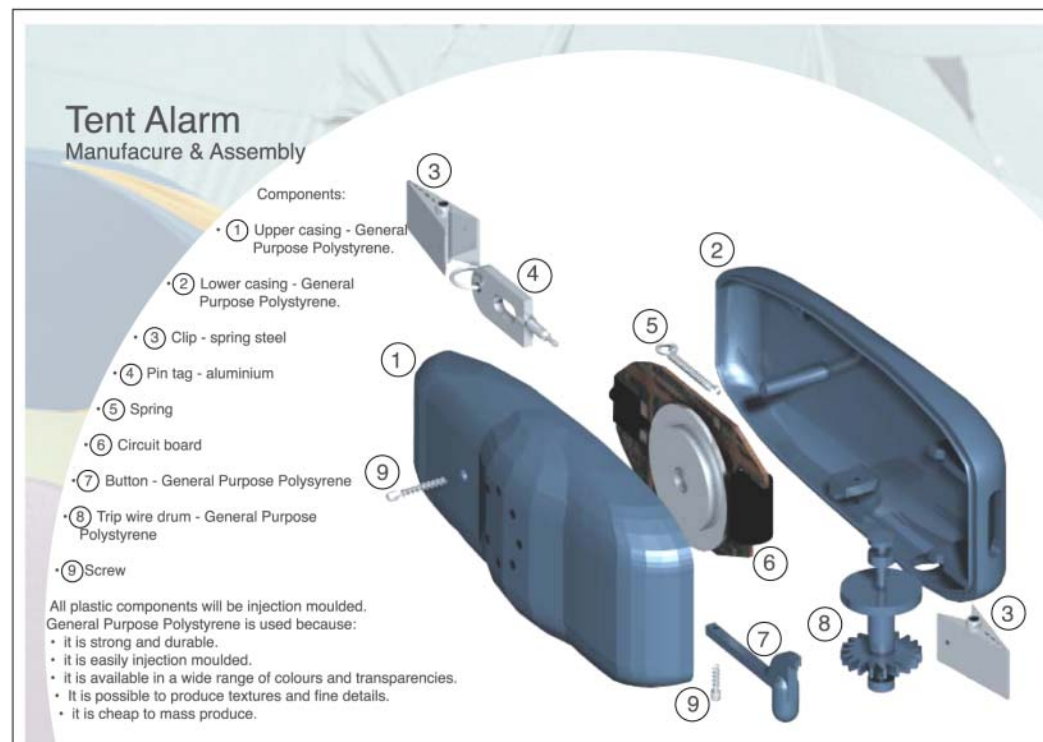
**Summary description of project:**

To design and visualise a personal alarm of 3 or more components, using 3D modelling software to produce a rapid prototype able file/s for FDM Rapid and 3DP Prototyping.

Aim: The application and confirmation of newly acquired 3D Computer Modelling skills to student generated Design Detail. The project brief is to design a Personal Alarm to deter/prevent attack or theft of items carried on your person. 3D Computer modelling technology [form•Z] is utilised in the generation of component detail and assemblies with the production of client presentation visuals.

**Reasons for the nomination:**

- The student has displayed a talent for 3D modelling far beyond the requirements of their level of study.
- The student has modelled technically accurate components capable of being rapid prototyped.
- The students experience of 3D modelling and form•Z is in its first year; only having had 72 hours [6 hours per wk x 12wk] tuition contact.

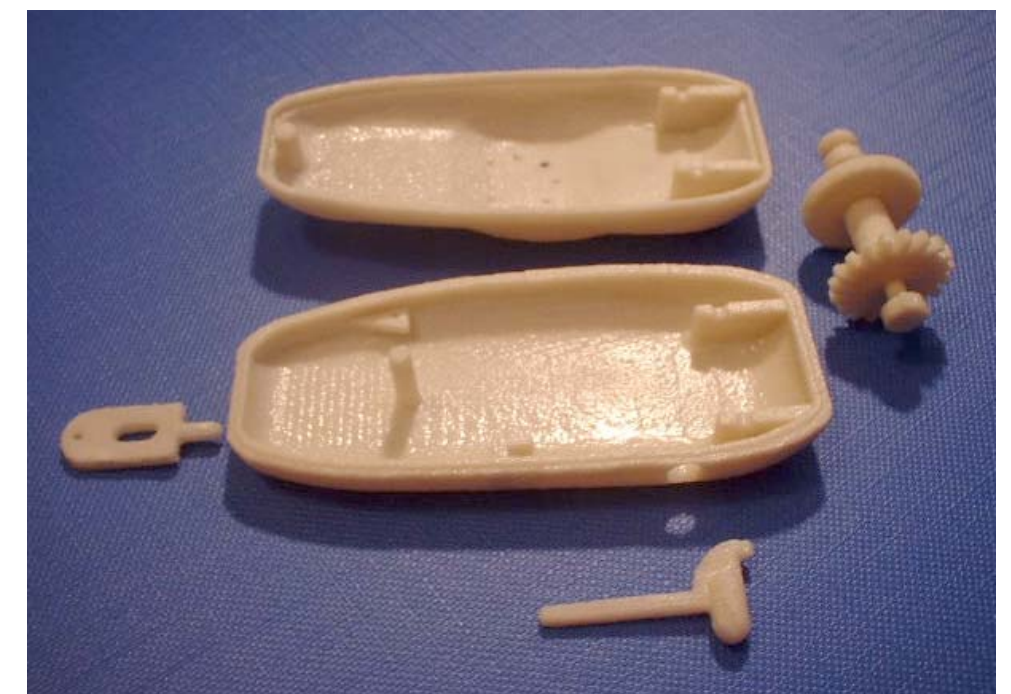




## Tent Alarm

### User Operation

- The integrated clips, grip firmly without damage to tent.
- The trip wire pulls out easily when the button is held in.
- When the trip wire is pulled the pin clicks out of place and the alarm is activated.
- The pin remains inside the alarm when activated so it can't be lost.
- To deactivate the alarm, simply click the pin tag back into place .
- When not in use unclip the alarm from the tent and press button to retract trip wire.



### Jury Comments

This student (with no previous exposure to **form•Z**) clearly demonstrates the lower learning curve associated with the **form•Z** software, by realizing an incredibly rich level of product development. Not only does the student use the softer surface articulation potentials of **form•Z**, he/she also exploits the direct export and translation into a physical output, so important to the rapid prototyping design process. Each modeled component is sent as a unique object to be printed in three dimensions. It is important that the Joint Study Program recognizes quality with entry-level projects that have excelled in the development of skills with the software. This project clearly demonstrates that quality on several levels and is competitive with the more experienced student projects.

- Kevin R. Klinger