



ATTAIN

Attainable sustainability

Bioplastic medication packaging and digitally connected attainable routines.

Max Strength Cold & Flu, Day & Night Relief Capsules



Contains



Paracetamol

Pain Reliever and helps reduce temperature when you have a fever.

Phenylephrine

Decongestant to reduce swelling in the passages of the nose to help you breathe more easily.

Day capsules only: Caffeine

Increase pain relief from paracetamol and makes you more alert.



PROBLEM

How can you improve sustainability of blister packs in a way to be of benefit over traditional plastic medication.

PROCESS

investigate materials for a substitute and a packaging that is suitable for that material, and a digital based product to benefit the general public.

PROPOSAL

Medication packaging primarily of bioplastic from potato starch, using more convenient medication access and tracking

Potato Starch production.

From 'Packing Products Online', There is a listing for potato starch bags and not only that but they also have a 'frequently asked questions' page. On this page they mention in higher detail the properties of the bioplastic -with consideration of it being in a bag form as opposed to rigid cutlery. They explain that "Biodegradation starts when film has been introduced to the micro-organisms, a constant temperature of 25°C and where humidity level is up to 80%, these three factors start the breaking down process." (Packaging Products Online, 2019) This means that storage wise, as long as the medication is stored in a cool dark place the packaging can last a long time. This is a really positive point, as this means that it can be stored in a similar way to regular medication, as in the storage instructions are frequently, 'store in a cool dry place'.

In terms of warehouse storage they also state, "Store in normal dry warehousing conditions, away from direct sunlight and above freezing temperatures." (Packaging Products Online, 2019) This means that the packaging is feasible for normal long term storage conditions, both in the house and in warehouses. There were a few websites that stated that SpudWare® had a shelf life of 5 years, however, there is no full reliable source to completely state that it is guaranteed to have a long shelf life. However, one would assume that it can be preserved long when in a cool dark area, preventing any biodegradation.

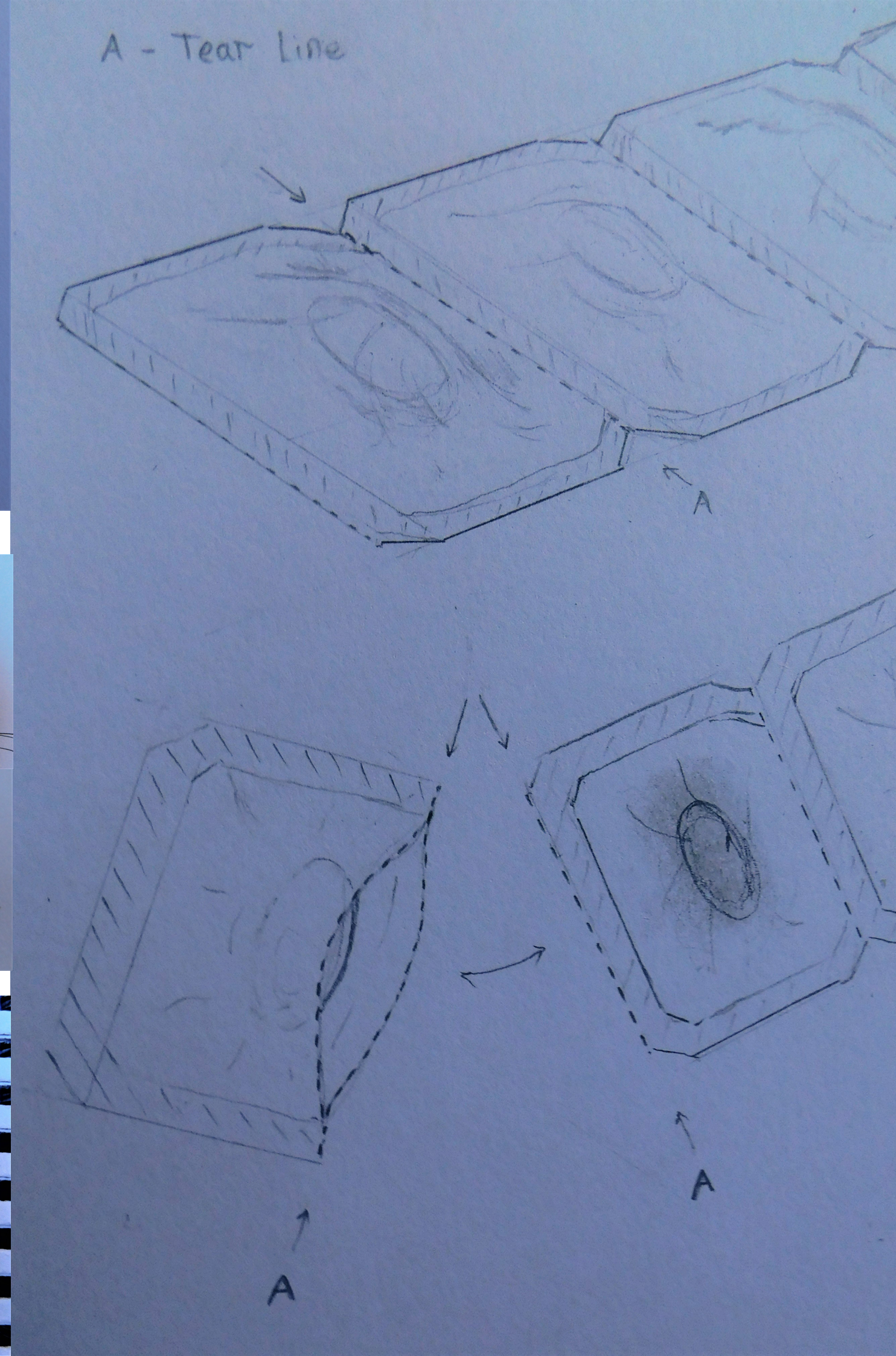
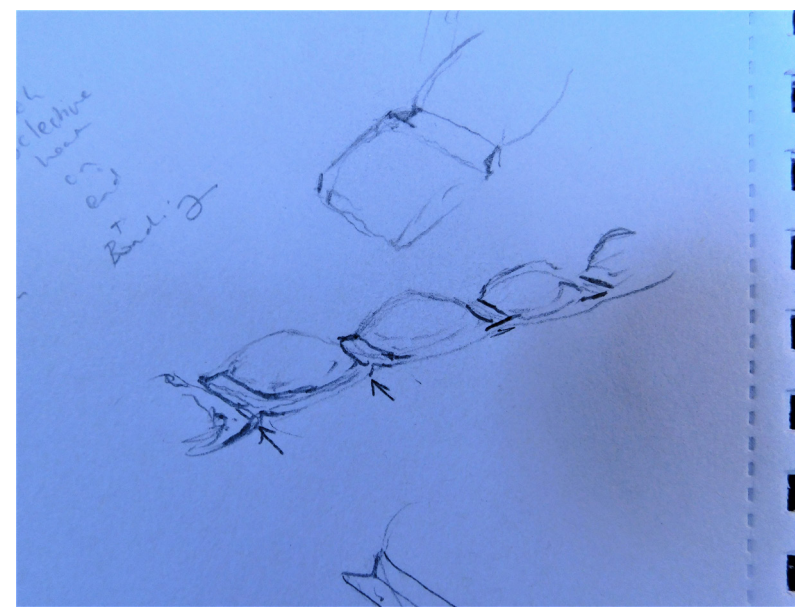
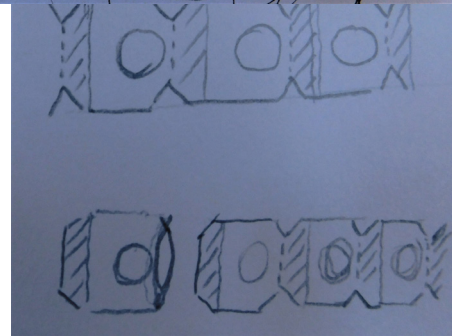
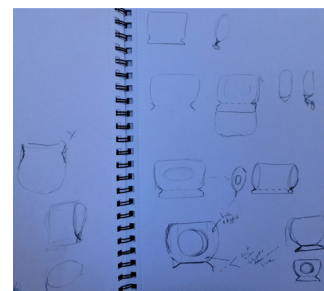
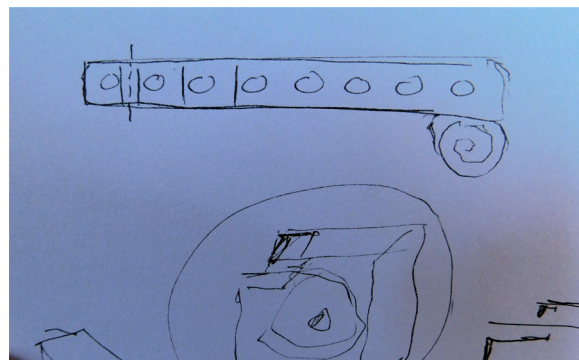
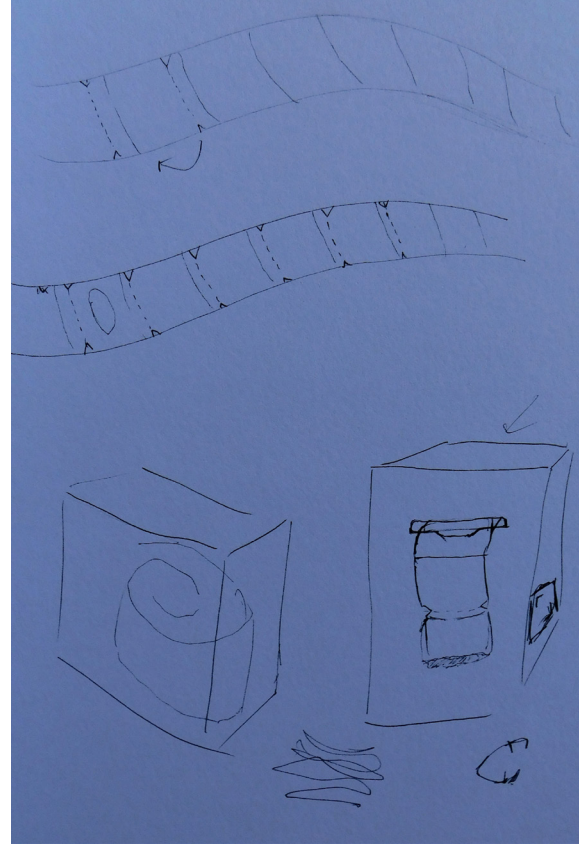
Packaging Products Online. (2019). Compostable Potato Starch Bags & Packaging - FAQ's. [online] Available at: <https://packagingproductsonline.co.uk/compostable-potato-starch-bags-packaging-faqs/> [Accessed 5 Oct. 2021].

Packaging design

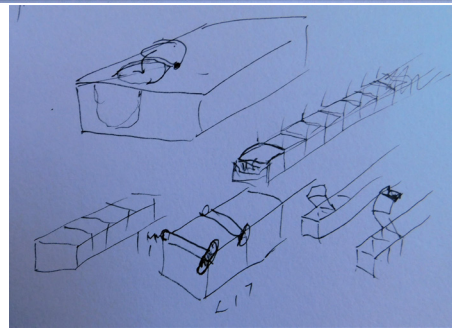
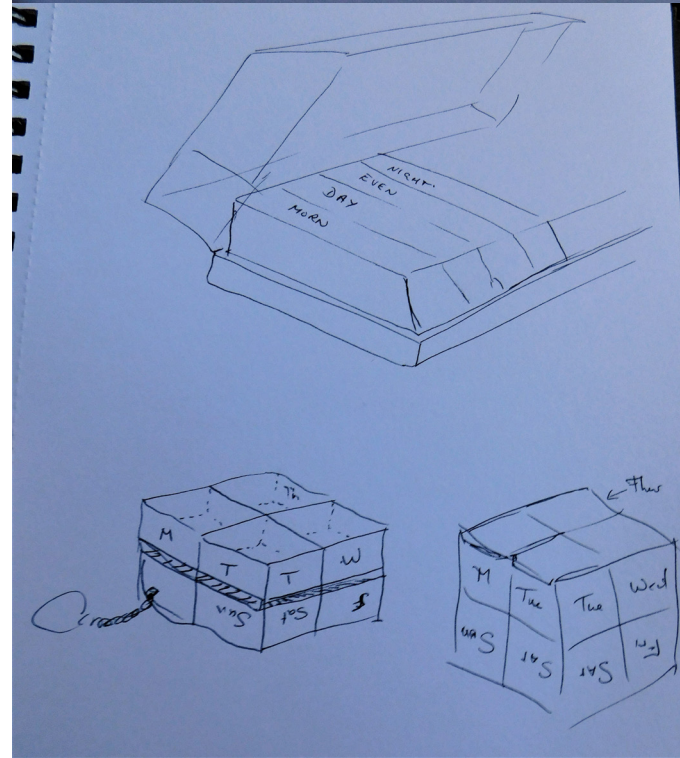
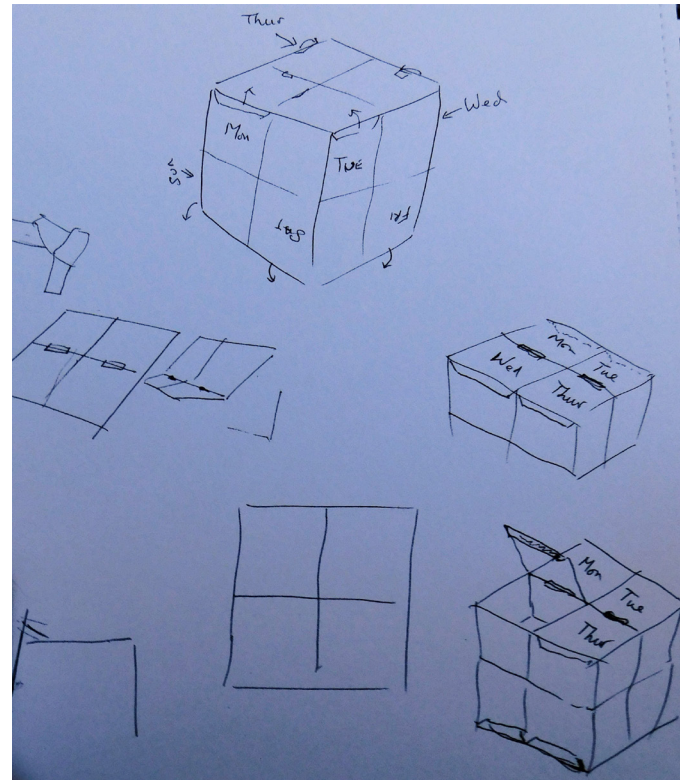
This would need to be re-designed away from the conventional blister pack. This is because of the properties of the potato bioplastic. If the product was made in an identical way to the plastic versions, it would be a slightly thicker base and a film coating over the top acting as barrier for potential risks.

This sounds okay however, there is a major issue with that and it is that the film would be difficult to break, especially with its smaller scale and surface area, presenting any tension to build for the seal to break.

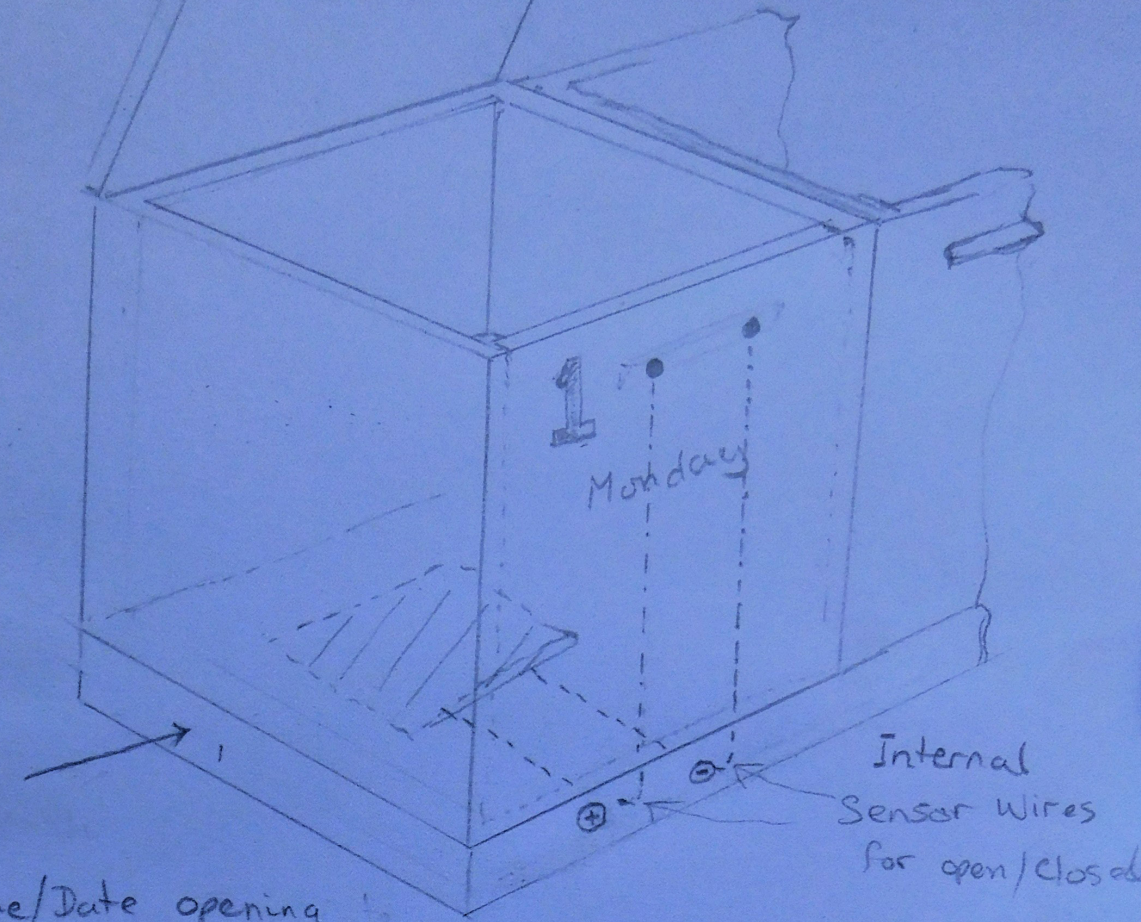
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Smart tracker for daily medication



Conductive Strip
Completes circuit
when closed



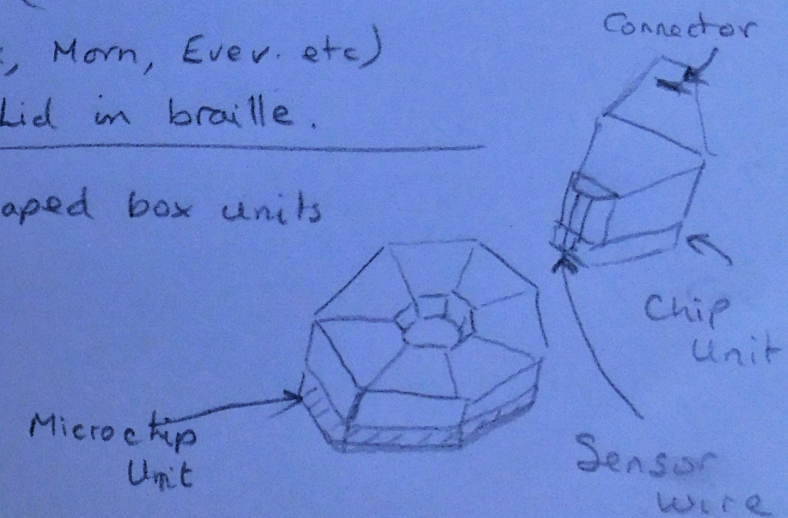
MicroChip

Recording Time/Date opening
(for multiple boxes in set)

Blue tooth connectivity to link to App.


Lid - simple Click shut (or possibly button release)
Box Data - (Day of Week, Morn, Even. etc)
included on Lid in braille.

Also adaptable to other shaped box units



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- Contains
- Purpose
- Before taking medication
- Dosage
- Dosage
- Possible Effects

 **Monday 27**

M T W T F S S


Timeline

13.53


07:00

12:00 !

21:00

 Warnings Edit

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