ECET 230 - Project Definition

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High Level Description

• name of the product/project - Coin Counter
• one or two sentences that tell you what this is about - A device that stores coins while using a register to provide an updating value count.

Purpose

This project is meant to give people a way to store their loose change in a neat and secure way and give them a good idea of how much money they have available that they may be overlooking.

The device is meant for desktop use. Users will be able to insert any loose change they find into one of four slots (depending on the coin's denomination), and the device will add up the value of the inserted coins and display it. The displayed value will also be taking into account the coins already in the box.

Client

• contact information - Department of Engineering
• roles -
• budget -

Communication

Git repository: [Coin Counter Repository](#)
Logbook: [Coin Counter Logbook](#)

Objectives

• high level: what is the product and what does it do for the user?
• descriptions - This product is a coin counter, serving as a way
for users to quickly know how much money they have in change.
This product is specifically targeted at people who make
purchases with cash.

• drawings -

• brochure -

• models -

Scenario

User Interaction Stories

• unboxing
• configuring
• using
• troubleshooting
• passive/active interaction
• servicing

User Interface

• displays - 1 display at the top of the coin slots
• buttons - One to reset container value. Another to undo the most recent
addition (in case of a misinput).
• indicators -

User Acceptance

- Given-When-Then criteria
- quantifiable goals

Parameters

Technical

- 6x6x4.5
- Weight -
- Electromagnetic compatibility (EMC) and electromagnetic interference (EMI) • protection

Functions

- core functions - being able to read off the value of any coin that's inserted. The value would then be added on to a larger sum depending on how much was already inserted into the product.

Integration

- interfaces
- protocols

Operational

- restrictions - Being on all the time could lead to unnecessary power usage. Might go into a "sleep" mode where the display is turned off until the device is interacted with again.
- duty cycle

Regulatory

- laws
- regulations
- policies

Life Cycle

- manufacturing
- programming
- tracking

- service
- associated services

Environment

- temperatures - Device is meant to be kept in a bedroom or similar style of room, so it will be made to handle the temperature of an average room in a house.
- hazards - Water could tamper with the electrical components and causes rust on the box as well as the coins.
- ingress - Slots on top will be big enough to fit a coin (on its side) with minimal effort on the user's part, so the openings are small enough that only dust and other small particles can get through. Once through, they would end up in the coin compartments, which would not interfere with the electronic functions.
- power - Battery and plug. The battery would be used as a backup to preserve the chip's memory in case of failure with the plug.

Starting Point

- existing IP
- existing prototypes

Key Concerns

- most important
- set-in-stone parameters

Future

- plans
- ideas

Glossary

- common vocabulary
- project specific terms

Open Questions

to be discussed with team/client