# CoinVision: Revolutionizing Coin Counting



## Introduction/Our IDEA



Ever found yourself knee-deep in coins, grappling with the never-ending struggle of counting them? We sure did. Frustration led to inspiration, and voilà – CoinVision entered the scene. A brainwave struck, pushing us to create a smart solution harnessing technology to effortlessly sail through the daunting task of coin counting. From cash registers to your coin jar at home and much more, it makes counting coins quick and mistake-free, making things easier for everyone.

# The Story

Picture this: I'm sitting there, sorting through a pile of coins, and I think, "There has to be a better way." That frustration birthed CoinVision. We figured, why not use technology to simplify this tedious task and make everyone's life a bit easier?

So CoinVision isn't just about counting coins; it's a testament to turning everyday annoyances into opportunities for improvement and efficiency.

# The Problem

Counting coins is not exactly thrilling – it's mundane, prone to errors, and let's be honest, nobody enjoys it. That's where our mission began – to tackle this daily hassle head-on. ter CoinVision, a groundbreaking solution designed not only to revolutionize loose change management.

It also addresses the headaches we face with Vending machines & Arcades that mostly work on

Weight based systems that have problems like:

- →Coins getting jammed in the mechanism, causing incorrect weight readings.
- →Changes in temperature or humidity can affect the performance of the weight sensors.
- →Dust, dirt, or sticky substances on coins can affect the accuracy of weight measurements.

This is where our idea CoinVision comes in as game-changer for individuals and businesses; it can be a powerful ally in Charity Drives, streamlining the process and maximizing the impact of contributions. Say goodbye to manual counting woes and hello to a seamless, tech-driven future.

## The Solution:

#### **Automatic Coin Recognition**

Coincounter uses computer vision technology to automatically recognize and identify different coin denominations.

#### **Accurate Counting**

Coincounter ensures accurate counting of coins, eliminating human error and providing precise results.

#### Real-time Reporting

Coincounter provides real-time reporting of the total value and quantity of coins counted, allowing for efficient tracking and monitoring.

## **Multiple Coin Denominations**

Coincounter is designed to handle multiple coin denominations, making it versatile and suitable for various currencies.

## **High Volume Coin Counting**

Coincounter is capable of accurately counting large quantities of coins, making it ideal for businesses and organizations that deal with high volumes of cash.

## Time Savings

Coincounter significantly reduces the time required for counting and sorting coins, allowing businesses to allocate their resources more efficiently.



# **Coin Counting Process:**

#### Capture

Coincounter uses computer vision technology to capture images of coins and analyze them using Python algorithms.

## Analysis

It applies Gaussian blur, Canny edge detection, dilation, and morphological closing to prepare the image for contour detection.

## Value and Quantity

Coincounter determines the value of the coins, providing an efficient and reliable counting solution.

# Here's why we Chose Python And CV:





Python's Versatility: Leverage Python for flexibility, readability, and robust library support, creating a user-friendly and adaptable development environment.

Precision through Computer Vision: Choose computer vision for a nuanced and accurate approach to coin counting.

The synergy between Python and computer vision transforms coin counting into a streamlined, error-free process, enhancing efficiency in currency handling.

Revolutionizing Currency Management:

- 1. Sophisticated Precision
- 2. Lightning-Fast Processing
- 3. Seamless Automation
- 4. Future-Ready Technology

# Real life applications of Coin Counter







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