**Motivation**

- Counting coins can be a tedious process, and even bills can present a headache, especially as electronic payment becomes more prevalent.
- People new to a country may have difficulty quickly counting the local currency.
- Automated money counting could benefit people with extreme difficulty seeing.

**Methodology**

1. **Image**
   - SIFT Feature Extraction
   - Distance Ratio Test
   - RANSAC
   - Remove Matching Features
   - Add Bill Value

2. **Identity Transformation**
   - Yes
   - No

3. **Homography Transformation**
   - Yes
   - No

4. **Fast Circle Detection**
   - Penny Detection
   - Penny Calibration
   - SIFT Calibration

5. **Remove Matching Features**
   - Yes
   - No

6. **Add Bill Value**
   - Database
   - Next entry

**Results and Future Work**

**Results**

- Accurately calculates the value of money in an image under reasonable lighting.
- Handles overlapping coins and bills.
- Coin detection computation time improvements over past work.

**Next Steps**

- Create Android/iOS front end.
- Increase segmentation robustness.

**Experimental Results**

- Images of coins and bills showing automated recognition and counting.