ELECTRONIC COMPONENTS DETECTION AND RECOGNITION USING DEEP LEARNING FOR LEARNING PURPOSE

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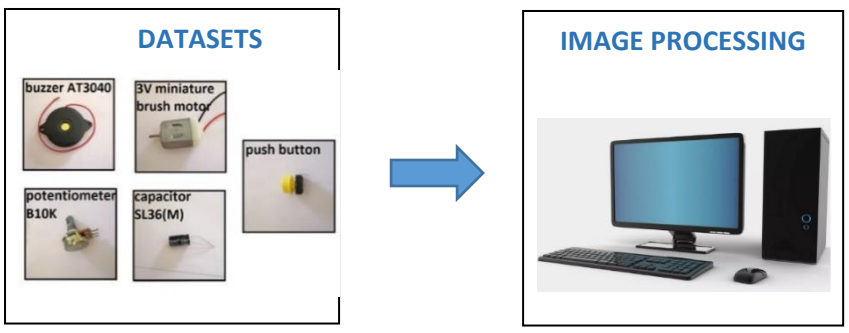
1. MOTIVATION

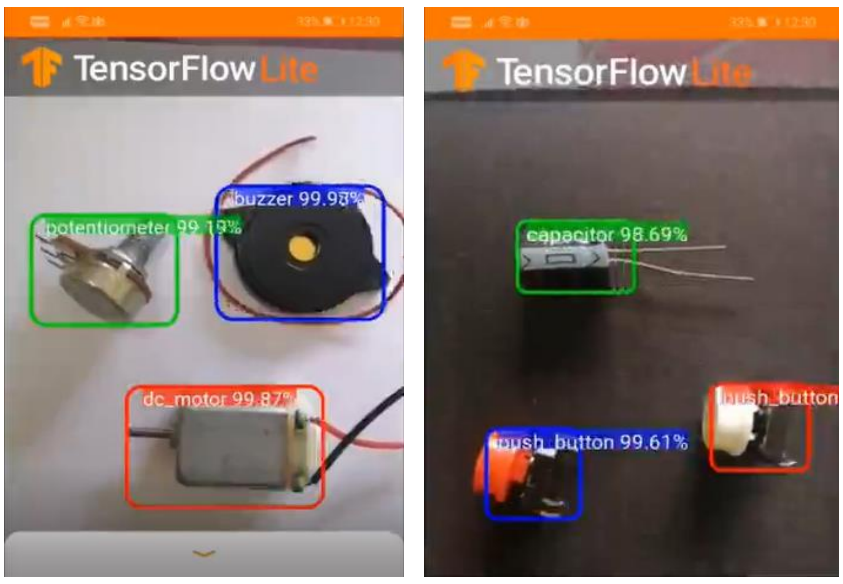
To assist user in detecting and recognizing accurately the electronic components using deep learning approach. It is important to choose the correct electronic components to avoid circuit failure and accident occurred.

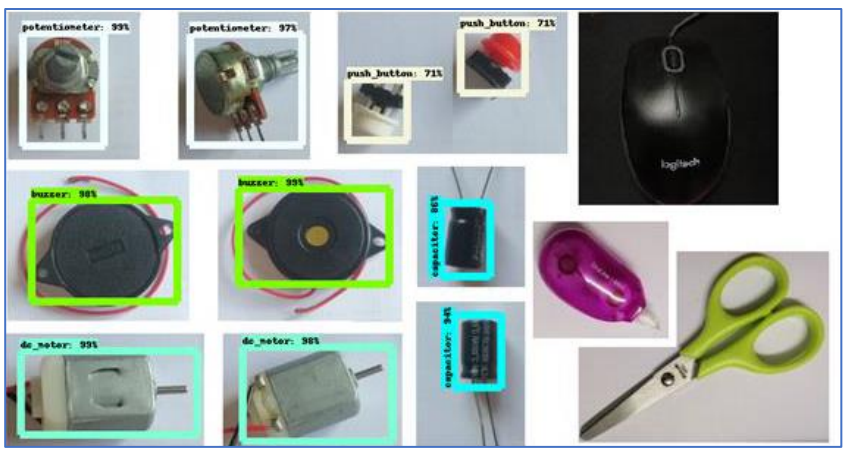
An accurate detection system based on Single Shot Detector (SSD) framework integrating with the android application is presented to help users, especially students. This application is well developed for the learning purpose.

2. STATE OF ART : DEEP LEARNING WITH ANDROID APPS



3. DEVELOPED APPLICATION





4. APPLICABILITY

- **Give opportunity to students to learn circuit design at young age.**
- **Assist the user to select or buy the correct components.**

5. MARKET OPPORTUNITIES

- **Can be marketed to university or high school students.**
- **Community benefit : Real time education for users.**

6. NOVELTY

- **New algorithm developed based on SSD framework for android application.**
- **Developed application provide a real time detection of electronic components. Available products in market only provide the database of the electronic components.**
- **Electronic documentation can be accessed in a matter of seconds.**

7. ENVIRONMENTAL IMPACT

Paperless with digital technology.