# Intro

Kindly read the Proposal first to get the idea what I am trying to implement here.

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# Usage

The `src.py` file contains some of the custom function definitions, which are used in `demo.py`.

Run `demo.py` for a sample run. For now, the whole implementation isn't complete and currently only the epipolar lines and all the TERs (Temporal Epipolar Regions) are being printed, in future, we would add lookup table and highlight the valid TERs.

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# Dataset

For now we are using a custom dataset in which we artificially move an object along a linear path and take a number of snapshots and try to find the valid TERs in this case.

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# Requirements

```
python 3.7.0
opencv-python 3.4.2.16
opencv-contrib-python 3.4.2.16
numpy 1.15.2
```

```
scipy 1.1.0
sklearn 0.19.2
```

# Idea

This implementation tries to implement the algorithm to find the valid TERs in an image where we need to find the search space of correspondance of a point of interest, given initial correspondences in minimum of 3 images that are different from this image.
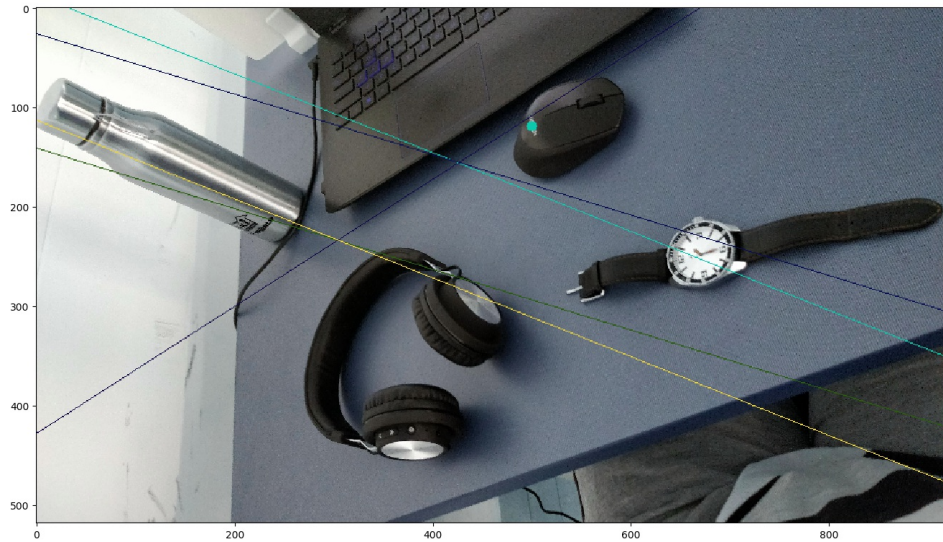
# Methodology

See the proposal `3D_CV_Proposal__Phase_2` for detailed methodology.

# Preliminary Results

Below are the images we got after dividing the image in which we want to find the correspondence into various temporal epipolar regions.

## Testing

Yet to be done

## Conclusions

Yet to be done