**Automatic extraction of TV news bar**

**Team Number:** 3

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**Main Steps**:

1. **Preprocessing**

* Extract frames from video.
* Convert each frame from RGB to grayscale
* Apply vertical 'sobel' mask to detect vertical edges to emphasize text locations.

1. **Determine location of news bar**

* Subtract two consecutive frames.
* Get maximum row variance.
* The row which has max variance will be the position of the news bar.

1. **Extract news from news bar**

* Remove uninteresting parts from news bar.
* Determine the distance between logo and word.
* Split news by determined distance between end or start of news and logo.
* Take only one piece of news from each frame.
* Compare current news to last news if they're equal in length reject the current one to avoid repetition.