**Motivation**

During a sports game, it is nearly impossible to pay attention to the movement of all the players on the field during any given play. Our project aims to track the motion of players, displaying the data in a simple format so that all aspects of the play are revealed. This would allow sports fans, coaches, and analysts to quickly identify how different players contributed to the play without having to re-examine replays.

**Methodology**

**Video Processing**
- Filter by dominant color
- Noise Reduction

**Court Detection**
- Edge Detection
- Hough Transform
- Extract Court Boundaries

**Player Tracking**
- HSV Filtering For Jersey Recognition
- Tracking Algorithm
- Determine Centroids
- Convert Player Positions to 2D Court

**Sources**


Tsung-Sheng Fu; Hua-Tsung Chen; Chien-Li Chou; Wen-Jin Tsai; Suh-Yin Lee, *Screen-strategy analysis in broadcast basketball video using player tracking,* Visual Communications and Image Processing, IEEE (2011)