function [ line\_top, line\_bot ] = HoughTrans( image )

%HOUGHTRANS Summary of this function goes here

% Detailed explanation goes here

[r,c] = size(image);

image\_top = image(1:(r/2),:);

image\_bot = image((r/2+1):end,:);

image\_top = edge(image\_top,'Canny');

[H,T,R] = hough(image\_top);

P = houghpeaks(H,1,'threshold',ceil(0.3\*max(H(:))));

line\_top = houghlines(image\_top,T,R,P,'FillGap',5,'MinLength',7);

image\_bot = edge(image\_bot,'Canny');

[H,T,R] = hough(image\_bot);

P = houghpeaks(H,1,'threshold',ceil(0.3\*max(H(:))));

line\_bot = houghlines(image\_bot,T,R,P,'FillGap',5,'MinLength',7);

end