

```

clear all
trigpin1 ='D3';
echopin1 = 'D2';
%trigpin2='D13';
%echopin2='D4';
laserpin='D7';
if ~exist('a')
a= arduino;
end
cam = ipcam('http://192.168.29.224:4747/mjpegfeed?320x240');
ultrasonicObj = ultrasonic(a,trigpin1,echopin1);
writeDigitalPin(a, laserpin, 1);

clear all
while (1)
cam = ipcam('http://192.168.29.224:4747/mjpegfeed?320x240');
img = snapshot(cam);
red= img(:,:,1);
green = img(:,:,2);
blue = img(:,:,3);
a = zeros(size(img,1), size(img,2));
just_red = cat(3,red,a,a);
jzz = imsubtract(img , just_red);
a1 = zeros(size(jzz,1), size(jzz,2));
bin = cat(3,blue , a1,a1);
threshold = 200;
bin = bin > threshold;
binm = imfill(bin,'holes');
binf = imfill(binm,'holes');
imwrite(binf , 'C:\Users\akash\OneDrive\Desktop\Imagecheck.jpg');
clear
A= imread('Imagetemp.jpg');
B= imread('Imagecheck.jpg');
grayA = rgb2gray(B);
binaryImage = imbinarize(grayA);
rowd = floor(100);
binaryImage(1:rowd,: , : ) = 0;
imshow( binaryImage);
[rows , columns ,colorchannels ] = size(grayA);

% Get all coordinates
[y, x] = find(binaryImage);
% Fit a line through them

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coefficients = polyfit(x, y, 1);
% Get a fitted line
xFit = 1 : columns;
yFit = polyval(coefficients, xFit);
% Plot the line in red over the image.
hold on;
plot(xFit, yFit, 'r-', 'LineWidth', 0.5);
% Put the equation up
txt = sprintf('y = (%f) * x + (%f)', coefficients(1), coefficients(2));
text(50, 200, txt, 'Color', 'r', 'FontSize', 8, 'FontWeight', 'bold');
distance = coefficients(2) - 103.200871;
disp(distance);
distance1 = readDistance(ultrasonicObj);
disp(distance1*100);
disp('cm');
if(distance < -2.7 || distance1*100 > 7 )
    disp("pathhole detect`ed and depth is" + distance);
    pause(1);
    break
else
    disp("normal road");
end
pause(1);
end

```