

```

clear;

close all;

car = im2double(imread('car.bmp'));    %读入原图

a = im2double(imread('a.bmp'));        %a 是二值图，用来提取背景
b = imcomplement(a);                  %b 是 a 的二值反向图

e2 = im2double(imread('e2.bmp'));      %e2 是另一个二值图用来提取背景
f2 = imcomplement(e2);                %f2 是 a 的二值反向图

imwrite(b,'b.bmp');

imwrite(f2,'f2.bmp');

car0 = f2.*car;

back0 = e2.*car;

imwrite(car0,'car0.bmp');

imwrite(back0,'back0.bmp');           %提取出车和背景

car1 = b.*car;

back1 = a.*car;

imwrite(car1,'car1.bmp');

imwrite(back1,'back1.bmp');          %另一个二值图提取车和背景

PSF1 = fspecial('motion',30,0);

car2 = imfilter(car0,PSF1,'circular'); %摄像头相对于车向右运动，移动 30 个像素
res1 = car2 + back0;

imwrite(car2,'car2.bmp');

imwrite(res1,'res1.bmp');            %结合不动的背景得到向左运动的车的图

PSF2 = fspecial('motion',30,180);

back2 = imfilter(back1,PSF2,'circular');%摄像头相对于背景向左运动，移动 30 个像素
res2 = back2 + car1;

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imwrite(back2,'back2.bmp');
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imwrite(res2,'res2.bmp'); %结合不动的车得到向右运动的背景图
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