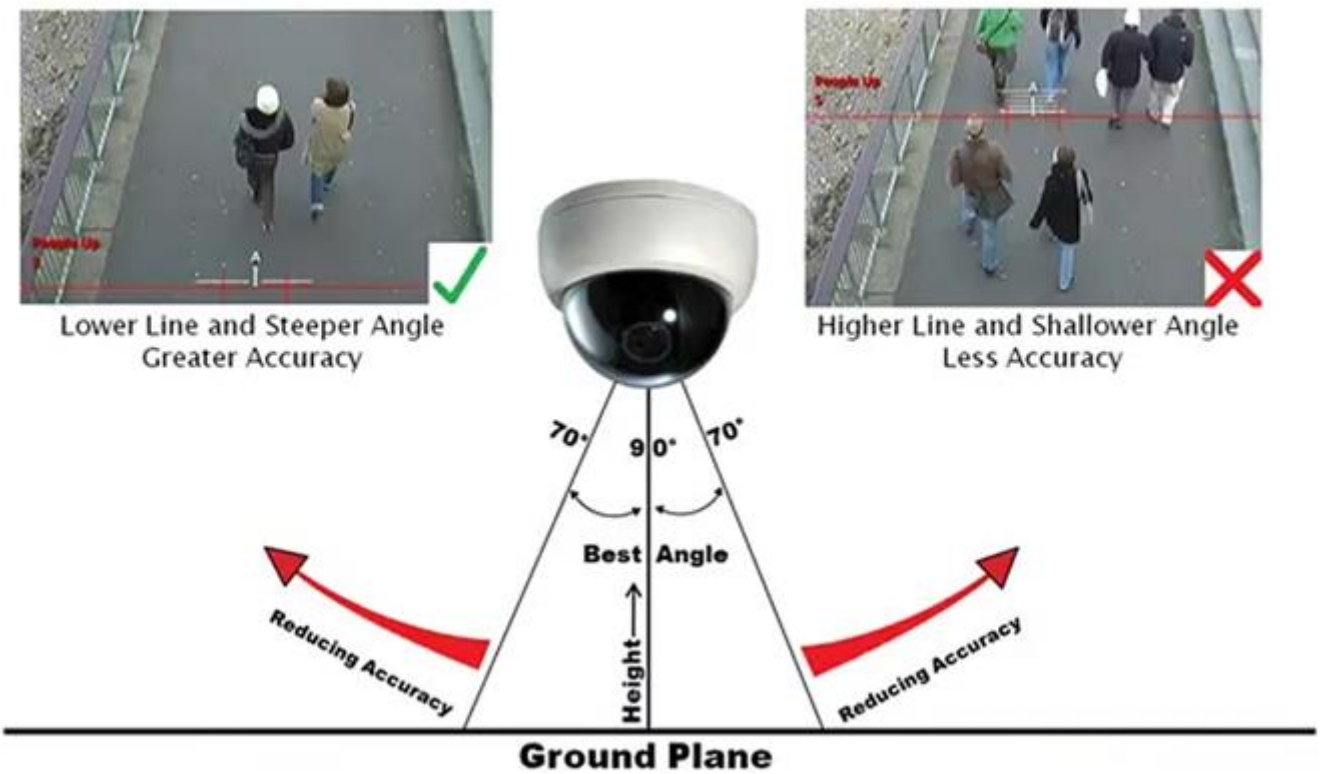
VCA – People Counting

Camera Setup

Accuracy	95% - typical accuracy 90% - in more difficult conditions such as high traffic flow, lighting problems etc	Also depends how 'clean' the video data is see NOTE 1 below
Minimum object size	Minimum 10% of screen height Maximum 50% of screen height	
Camera angle	90° overhead is best for busier conditions Angles down to 60° still work OK if traffic conditions are lighter and people are not following each other too closely	The important thing is to see a gap between people or vehicles that are following each other, which is why 90° is best. (Note no gap is necessary for people side by side)
Detection area width	People counting – up to 5m wide Vehicle counting – up to 12m wide	Should meet minimum object size criteria
Camera Height	Typical minimum height 3m	Should be more than 1m above people's heads



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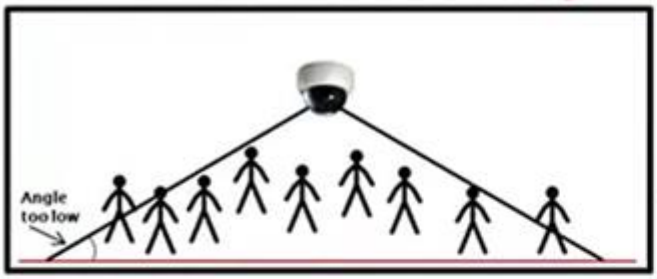
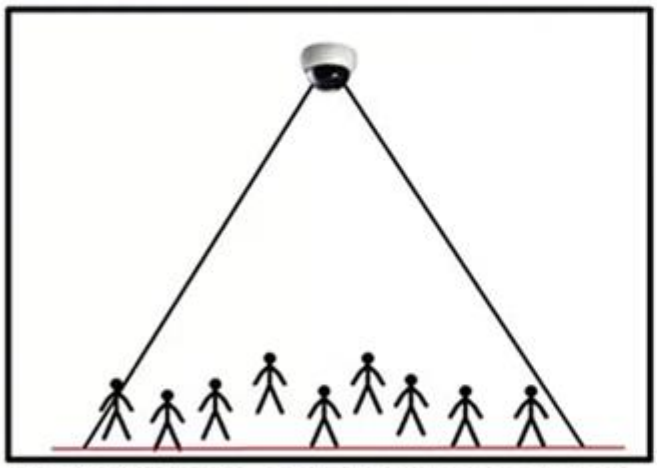
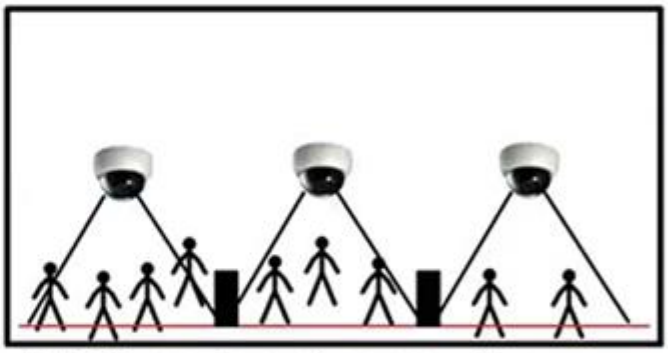


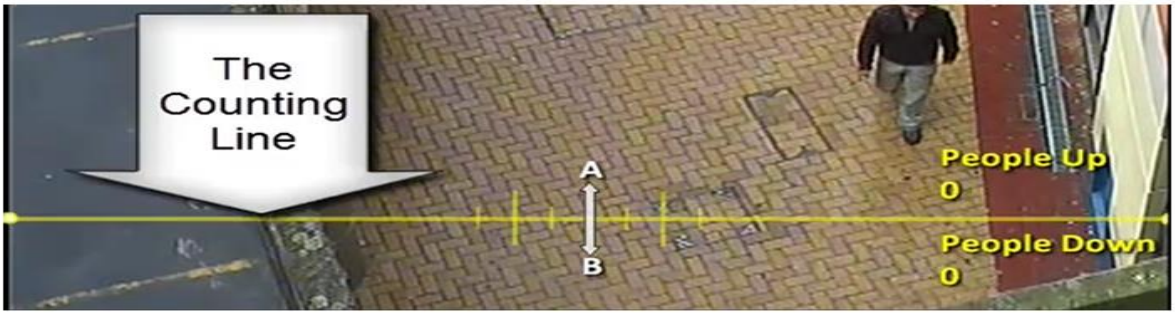
1. Even with a wide angle lens, a camera in this position would not correctly count the people passing through at the far sides, because the angle is too low.

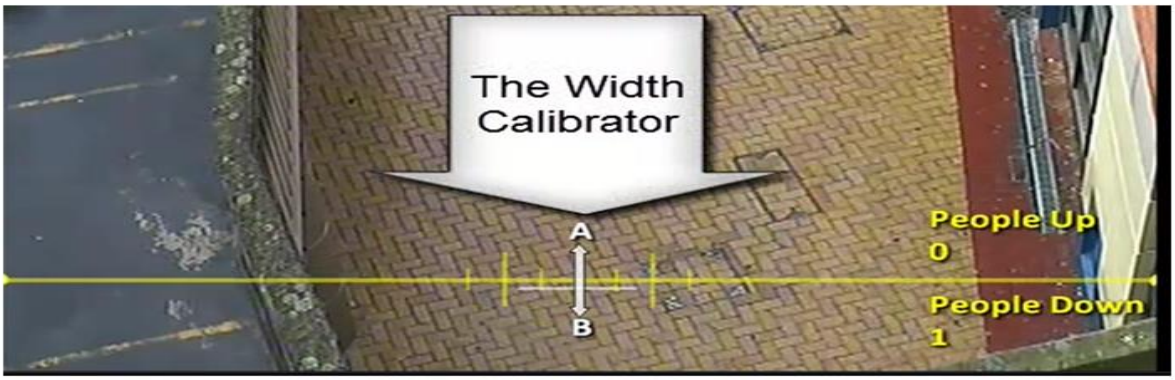


2. If there is enough space, then mount the camera higher to increase the angle.



3. If there is not space, the problem can be solved by installing multiple cameras and physical barriers to keep the people in separate lanes.





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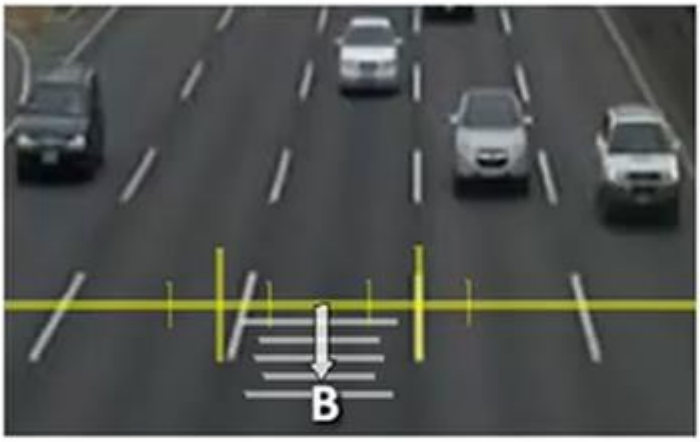
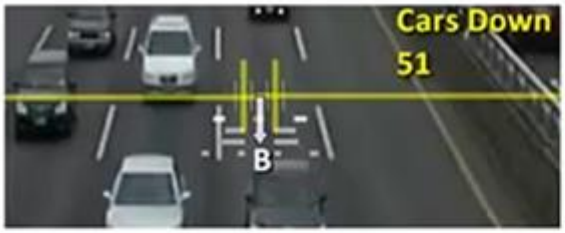
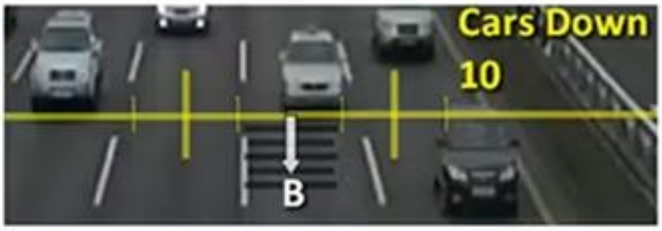


Vs

Comparative tuning to achieve 95 to 100% accuracy



Too Narrow



Too Wide

Above you can see what happens to the count accuracy when the width calibrator has been adjusted incorrectly:

Too Narrow = Count Too High

Too Wide = Count Too Low

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Object Shoulder Width

0% to 50%	→ Object is not counted at all
50% to 100%	→ 1 person is counted
100% or more	→ more than 1 person counted. Depend an object size

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