



Automatic Number Plate Recognition

White paper

Last Updated: May 2022

Table of Contents

Introduction	4
1 - Do a site survey	5
2 - Get the right angle	5
3 - Positioning	6
4 - Get the right camera and lens	6
5 - Keep it real	6
6 - Meeting Customer Expectations	7
7 - Enhanced Features for Enterprise Users	7
8 - Keep your data secure	8

ANPR Cameras

Automatic Number Plate Recognition

... use vehicle registrations to open gates, trigger alarms or send alerts !



**Low cost Compact
ANPR camera**

RoboPlate Low cost
6-22mm ANPR Eyeball
Order Code: ROBOPCZ22

**PowerZoom
ANPR camera**

RoboPlate PowerZoom
5-50mm ANPR Bullet
Order Code: ROBOPMZ50

1 - Do a site survey

It's really important to get acquainted with your site and even more so with your client's expectations. Just as you would for their burglar alarm system or normal CCTV system they will have specific needs that they will want you to meet.

Assuming they want to capture a vehicle's number plate on entry to a particular area, you'll need to consider where vehicles will be positioned and at what angle when they enter that area.



Top Tip

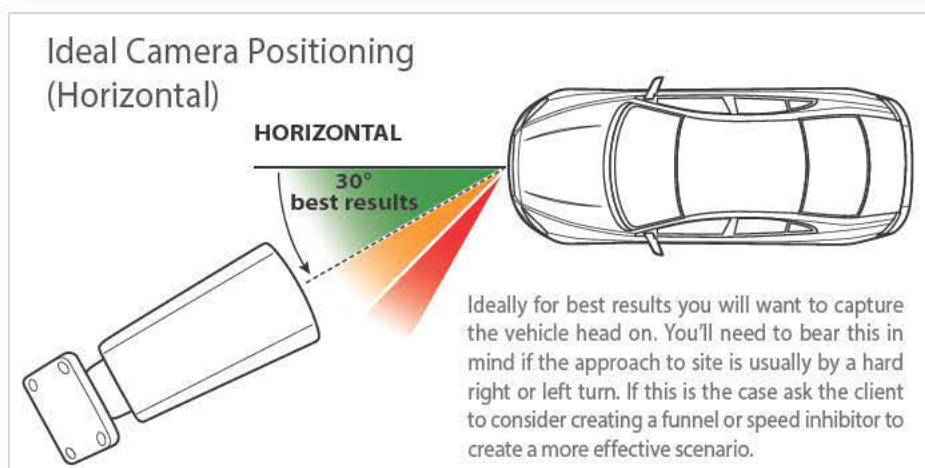
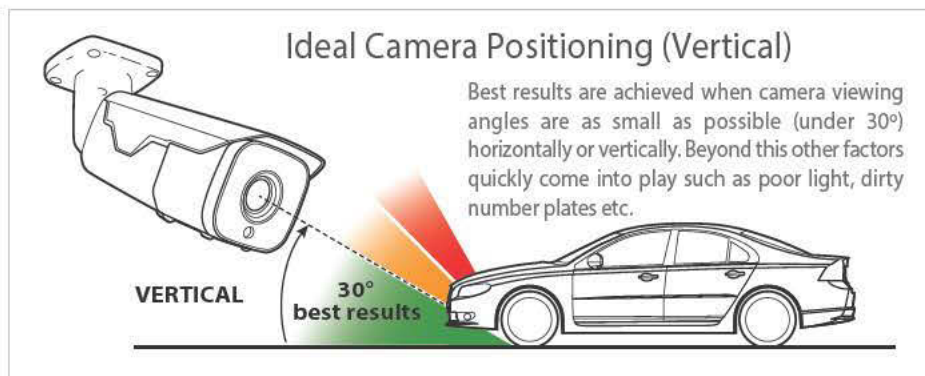
Always try and capture the number plate from the front of a vehicle as the rear can often be blocked or obscured by other vehicles or accessories such as bike racks or trailers.

2 - Get the right angle

Ideally for best results you will want to capture the vehicle head on. You'll need to bear this in mind if the approach to site is usually by a hard right or left turn. If this is the case ask the client to consider creating a funnel or speed inhibitor to create a more effective scenario.



Automatic barriers, gates, bollard or more cost effective solutions such as speed bumps or narrowing of the entrance using kerbing or shrubbery can all help to control the direction, speed and flow of the vehicles to enable the camera to have a longer exposure to the number plate at a better angle for maximum effectiveness.



3 - Positioning

In an ideal world your ANPR camera would be fitted dead ahead of the approaching vehicle at the same height as the licence plate but in reality this is entirely impractical especially given that you will want to get a cable to the camera too.

Consider suitable locations up to a 35m radius of your capture area that you can run cable to and decide where the camera might be mounted. Although an ideal height would be around 1m this could be quite tricky but avoid a downward pointing angle of over 30° as that makes it hard for the camera to obtain the relevant data.



4 - Get the right camera and lens

Once you established viable locations, it's then time to pick your ANPR camera usually depending on style and lens size.

A model like the RoboPlate Eyeball (model: ROBOPCZ22) has a 6-22mm varifocal lens and a discrete, compact case design that is a great solution for a gate post. Zoomed in to the full 22mm setting it would offer you a full view of a licence plate at 3m or the full width of the car at 10m.

The RoboPlate PowerZoom Bullet camera (model: ROBOPMZ50) has an even more powerful 5-50mm lens and at a working distance of 35m has been rigorously tested for consistently good results. This model might be a preferred choice to be sited on a building looking across a car park to a gate or entrance.



Did You Know ?

The standard UK number plates measure 51cm wide and the average saloon car around 2 metres.

5 - Keep it real

Obviously if you would find it hard to read a number plate with your own eyes at day or night in the position you opt for then chances are it isn't a great spot for your camera either. You'll need to make sure on installation that your camera is in perfect focus, no vegetation or other objects obstruct its view, no bright security or spotlights blind the camera view at night and so on. In short everything you would look out for when installing a standard CCTV camera.

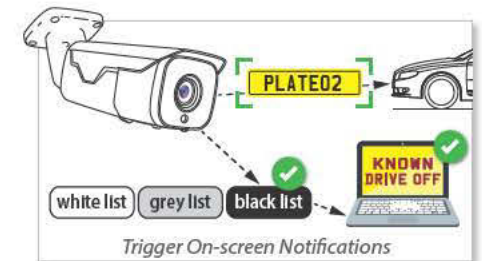
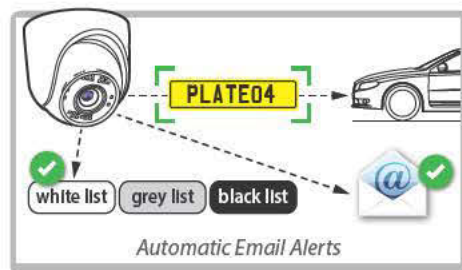
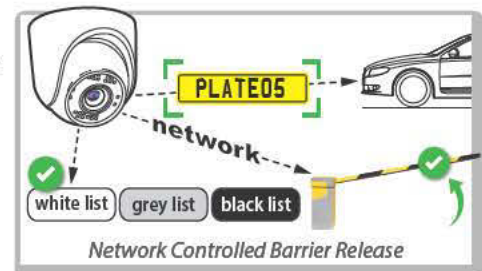
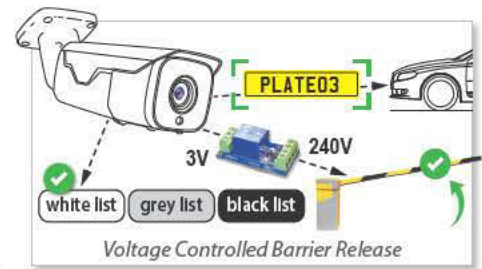


6 - Meeting Customer Expectations

Ascertaining exactly what your customer is trying to achieve is key as it will determine your final choice of ANPR camera as well as any accessories or software that may be needed to achieve this. You'll need all this information to produce a realistic quote.

Brands like RoboPlate ANPR cameras have loads of features built in without the need for extra gear. From the camera itself you can capture, store and compare a number plate to a White, Grey or Black list saved on an on-board SD card. You can save captures to the card or upload them to the Cloud for remote storage. On a match you can trigger the built in low voltage relay to activate a 3rd party device such as opening a gate or barrier, activate an automatic MP3 player such as the VoiceOFF or a simple strobe or siren.

They can play a message for the camera itself depending on which list is matched and will even email you a snapshot of the match if you're off site. All this works with no NVR or extra software required.



7 - Enhanced Features for Enterprise Users

Whilst the aforementioned features are really great, it may be that your client requires just a little bit more to manage vehicle access to their site. This is where additional software comes in.

Written in the UK by British software engineers, the RoboPlate Command Centre software give extra functionality to the RoboPlate cameras including full vehicle database management, extra lists (up to 20), audio & visual notifications for operators, triggering off network relays, emails and VoiceOFF announcements to name just a few.

A low cost widget can also be used as a basic addition to the cameras to provide an instant pop up notification over a network of any number plate list match to an operator such as a Receptionist. It can add a handy audio alert too!



Manage, control and organise your ANPR cameras & database with the powerful RoboPlate ANPR Command Centre Software



Get Instant Pop Up Notifications of an ANPR List Match on your PC Screen with RoboPlate RegWatch Widget

8 - Keep your data secure

As with any CCTV images, ANPR data is considered to be personal data and as such would fall under the remit of the GDPR. It's good practice to have clear signage alerting any approaching vehicle that they will be recorded on CCTV for security purposes. The Who Is Watching Me range of warning signs can help clearly mark out the site.



DPA Compliance Kit

Includes 20x Evidence DVDs with unique ID stickers and seals, 1x A3 and 1x A4 warning signs, 20x warning stickers and date compliance log book.

Order code: **DPA100**



CCTV Warning Signs & Stickers

With FREE registration to the "Who Is Watching Me" scheme

A3 Sign Order Code: **SIG650**

A4 Sign Order Code: **SIG550**

A5 Sticker Order Code: **SIG102**

More detailed info on the RoboPlate range can be viewed here >

