<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abnormal Cases</td>
<td>The machine can deal with the unclear image. The system will store pictures and display them via the internet when the license plate cannot be read.</td>
</tr>
<tr>
<td>Inspection</td>
<td>There will be cameras to take pictures of vehicles. The system will record cars coming from both directions on the roadway.</td>
</tr>
<tr>
<td>Test</td>
<td>Car Speed</td>
</tr>
<tr>
<td>Test</td>
<td>Connectivity</td>
</tr>
<tr>
<td>Test</td>
<td>Identify License Plate</td>
</tr>
<tr>
<td>Test</td>
<td>Informing the Client</td>
</tr>
<tr>
<td>Inspection</td>
<td>Power Supply</td>
</tr>
<tr>
<td>Test</td>
<td>Size</td>
</tr>
</tbody>
</table>
1. Through software system, put in an unclear photo which classified as unrecognizable license plate photos.
2. The image will store into the worse case document.
3. Then summarize report and update it to the user at night, in order to tell the user to check.

Feed picture directly into processing and verify it is stored and report at the setting time.

1) Install system in a one lane alley.
2) Wait for 20 minutes and count cars coming from either direction while system is also running.
3) Upload data to server.
4) Compare manually counted cars to the number of cars uploaded in the data.
If the number of cars in the data matches the number of cars counted, test passes.

1) Wire sensor with an LED.
2) Approach the sensor with a car going at 15mph
3) Check to see if LED comes on.
4) Make no motion in front of sensor for ~3 minutes.
5) Check to see if LED comes on.
If LED light comes on during step 3 and does not come on during step 5, passes test.

1) Put some pictures on an SD card connected to the wifi hardware.
2) Attempt to send the pictures to the server.
3) Check server on a computer to see if pictures were sent.
If we can verify that 100% of the pictures we placed on the SD card were successfully sent to the server, test passes.

1) Several photos with clear license plate numbers are sent to the recognition system for detection.
2) Check whether they can be recognized.
3) The output results are compared with the actual license plate number by naked eyes.
4) Multiple measurements ensure as high a success rate as possible.
The license plate number stored in the network is exactly the same as that of the actual vehicle. Test several times more to ensure the accuracy control at a high level.

https://platerecognizer.com/

1) First, a license plate data is stored in the database.
2) By clicking the get data button, the user can receive an email containing the data.
3) Then put a blurred photo is stored in the database.
4) By clicking the get data button, users can receive an email containing data, photos and timestamps.
5) Set the time to every hour and the system will automatically send mail to the user.
6) Save some data again within this hour.
7) An hour later, you can receive an email containing all the stored data.
When you click the get data button, all data in the database can be successfully generated and sent to the user. Users can use the email to check the information in the database.

https://pocoproject.org/

1) Develop a power budget to ideally figure out the total power consumption and how long till a recharge needs to occur.
2) test the total consumption of a large battery pack for a day without installing solar energy
3) test the total consumption of battery pack with installing solar energy for one day with good sunlight.
4) test the total consumption of battery pack with installing solar energy for one day with bad sunlight such as rainy.
5) calculate the total large battery electric quantity we need for 30 days and minus the total large battery electric quantity on that day.
6) calculate the additional solar power electric quantity in good sunlight day to find what exact sunlight day we must have in a month.
If the total sunlight day require for no more than 15 days, the solar power system succeed.

1) Use a ruler to measure the length, width and height of the device structure
2) Insert the system in the mailbox to test the stability and the final size
The size must be less or equal than 19 inches long by 6 inches wide by 8 inches high and it can put in the mailbox stably.