

# **MTP Pedestrian Crossing Violation Detector**



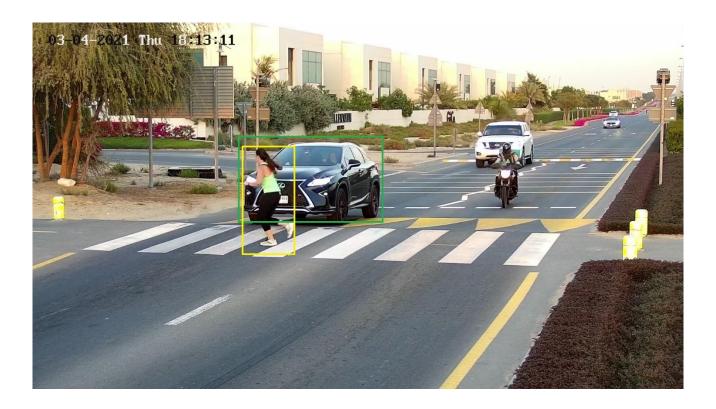
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### Description

Pedestrian crossing means a specified part of a road where pedestrian have right of way to cross.

For making the safety of every individual and being aware between the drivers and people at the road side, we successfully make the best detector system which is the "Pedestrian Crossing Violation Detector"

Pedestrian Crossing area on the road must be safe for pedestrian and car should stop behind of line before reaching to pedestrian crossing area if there are individuals attempt to cross the road.



Picture 1: Sample of Pedestrian Crossing Violation on Double line

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But as we observed some of drivers don't stop behind of line and continue their movement even pedestrian is walking on zebra area and it is very dangerous for pedestrian and sometime cause accident. For reducing of this violation, we produced intelligent violation detector to help the management of traffic safety especially on zebra area.

Pedestrian Crossing Violation Detector install beside of crossing area and detect violator cars who don't stop behind of line and continues his movement even pedestrian is walking.



Picture 2: MTP Pedestrian Crossing Violation Detector

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#### **Violation Area**

As you can see as the picture 1, there are three areas:

- Zebra Area
- Yellow Mark
- Stop Line

Zebra area is specific place for pedestrian cross walking and always monitored by camera to finding pedestrian. So, the duty of our camera is to continuously monitoring the Zebra area which means the cars that was passing the road while there is pedestrian.

Yellow Mark and stop line always monitored by camera to finding vehicles. This area can be adjusted depend of inquire.

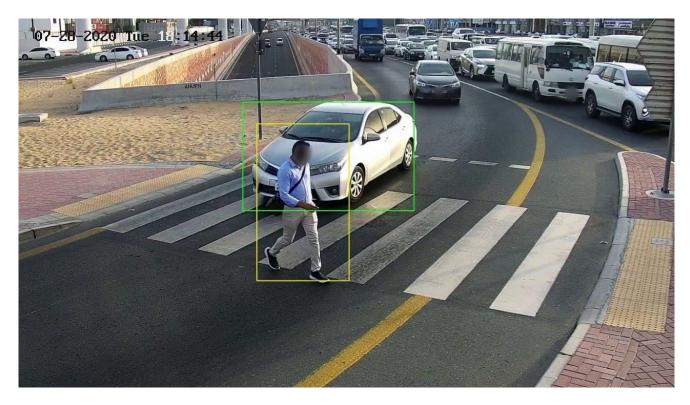
If any vehicle passing stop line or yellow mark while pedestrian is crossing on zebra area, Radar will activate and take video and photo of violator vehicle.

ANPR will process vehicle plate and extract plate number and send it directly to Police Control Room along with violation video/picture and details of date, place, and some other information.

For example, picture 3 is showing that the silver car is continuously passing in the zebra area while the guy is walking in the zebra area.

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In this case our system will detect the violated car and our camera will take picture.



Picture 3: Sample of Pedestrian Crossing Violation on Single Line

# **Violation Pictures and Data**

Violation detector takes 2 pictures and one video and XML data:

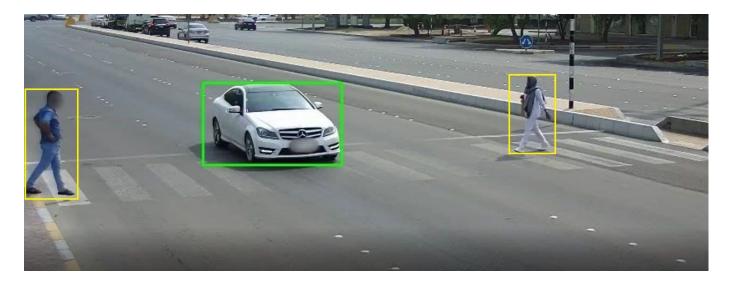
- One picture for exactly violation time,

- Second picture for a few moments after violation (its time is depending to client request).

- And one video which covers a few seconds before violation time and a few second after violation time to be as a reference for police in case of he wants to check violation time to make a fine for the drivers who violated traffic in the pedestrian crossing area (its time is depends to client request).

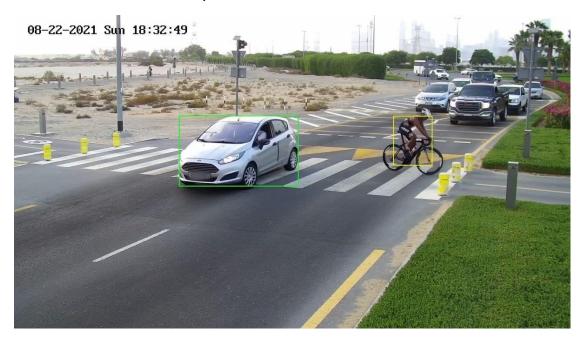
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- XML Data has information of Site Code, Location Place, date, Time, Radar ID, Plate Number, Warning Light timing Passed as Police required setup.



Picture 4: Sample of Pedestrian Crossing Violation on Four Lines

Our system can save violation images and videos on USB flash memory or can send as online to police station via secured internet.

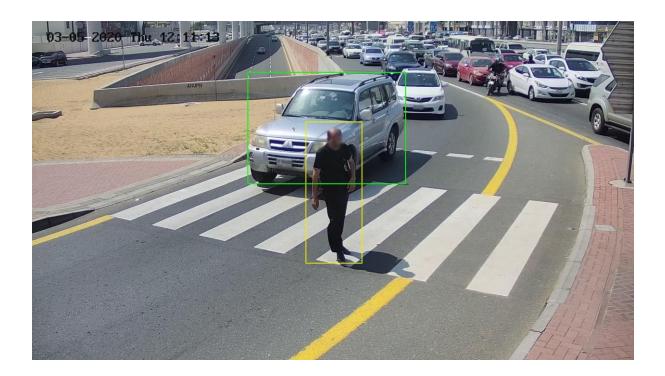


Picture 5: Sample of Pedestrian Crossing Violation on Double Line

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# ANPR

Our system has ANPR (Automatic Number Plate Reader) as optional. With ANPR, it reads registered plate number of violator car and sends it along with pictures and video to police control room.



Picture 6: Sample of Pedestrian Crossing Violation on single Line

# **PTZ Camera Specification**

- . Power Supply 12-volt DC,18w (Max 7 watt for IR)
- . Full HD resolution
- . Weight 2kg

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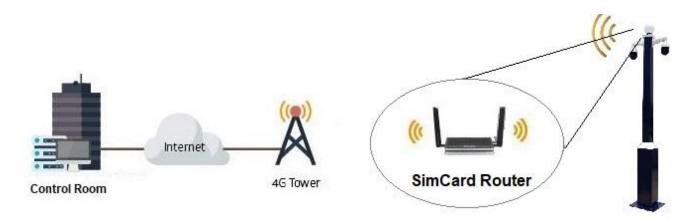
### Router

After detection violation, camera will record two images and one video of violator vehicle and save it in mini-PC.

These images and video along with its data like as date, hours and place can send to traffic control section of police office via one Router which is embedded in our over Pedestrian Crossing Violation Detector. This Router has one Sim Card which provided with police. It can make secure connection between our violation detector and police office.

Another option is available with our system and it is WIFI collection data. Means police officer can collect all data and images and videos with stop beside of camera for a few minutes, so data and images and video will transfer from our violation detector to police laptop with WIFI connection. One more option is available also for collection data and it is USB memory.

Mini-PC can save all of violation data and images and video on USB memory, so police officer only has to visit camera every day or couples of days and remove USB memory and put new USB memory.



Picture 7: Data Transferring with Sim Card Router

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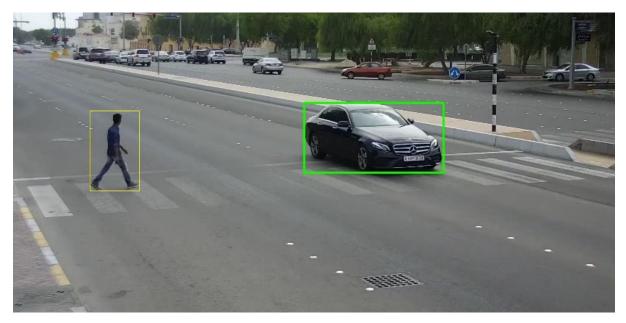
So, violation data and images and videos in our violation detector can be collect with three following ways:

- Collection data and images and videos by USB memory,
- Collection data and images and videos by WIFI system,
- Collection data and images and videos by Sim Card internet,



Picture 8: Data Collection ways, USB memory, WIFI system, Sim Card internet

We developed our system to cove Four Lanes, so now it can detect all violations on four lanes with only single radar.

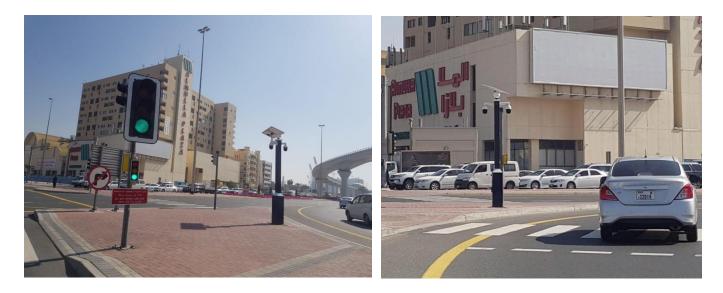


Picture 9: Sample of Pedestrian Crossing Violation on Four lines

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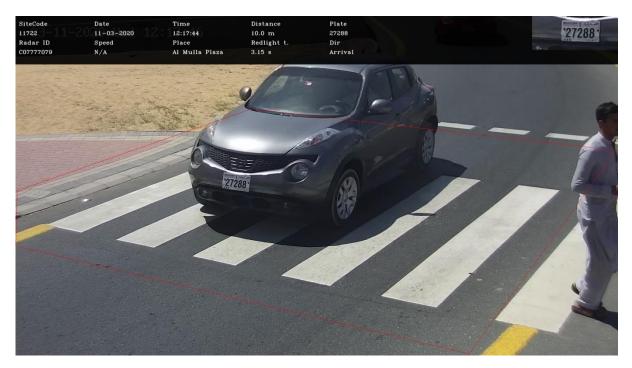
Picture 10: Sample of Pedestrian Crossing Violation on Two Lines



Picture 11: MTP Pedestrian Crossing Violation Detector

It can be installed beside of pedestrian crossing area, and set up software to be compatible with specific place as customer desired.

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Picture 12: Status Bar

# Sample of Pedestrian Violation Captures:

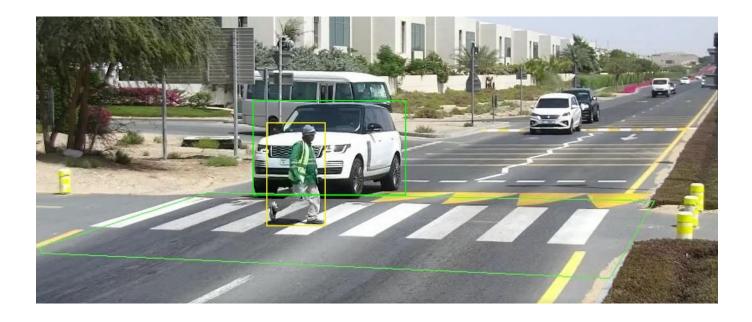


Picture 13: Sample of Pedestrian Violation Captures

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Picture 14: Sample of Pedestrian Violation Captures



Picture 15: Sample of Pedestrian Violation Captures

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### **Product is included:**

- Two Camera:
- Mini-PC:
- MTP Software
- Router
- MTP ANPR
- Warning Light
- Solar Panel
- Battery
- Decorative Post

#### **Status Bar**

It is included:

- Site Code,
- Radar ID,
- Date and Time,
- Location Place,
- Plate Number,
- Red Warning Light Time Passed,
- Picture of Plate,

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| Technical Specification |  |
|-------------------------|--|
| Mini PC                 | Recording full time video  |
| Camera PTZ<br>2 pcs     | Power Supply 12 Volt DC, 18w (Max 7watt for IR)<br>Full HD resolution<br>Weight 2kg  |
| Software                | MTP Pedestrian Crossing Violation Detector Software<br>Image Processing<br>Detecting 2 lines car passing<br>Detecting Pedestrian<br>Detecting Violation<br>Saving plate number |
| ANPR                    | MTP Automatic Number Plate Reader  |
| Router                  | Transferring violation Data with Police Sim Card   |
| Solar Panel             | 100 Watt   |
| Charge<br>Controller    | Controlling Battery Charging and voltage   |
| Battery                 | 12 volt - 100 AH   |
| Warning<br>Light        | Indicator with 13cm diameter LED Light   |

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