

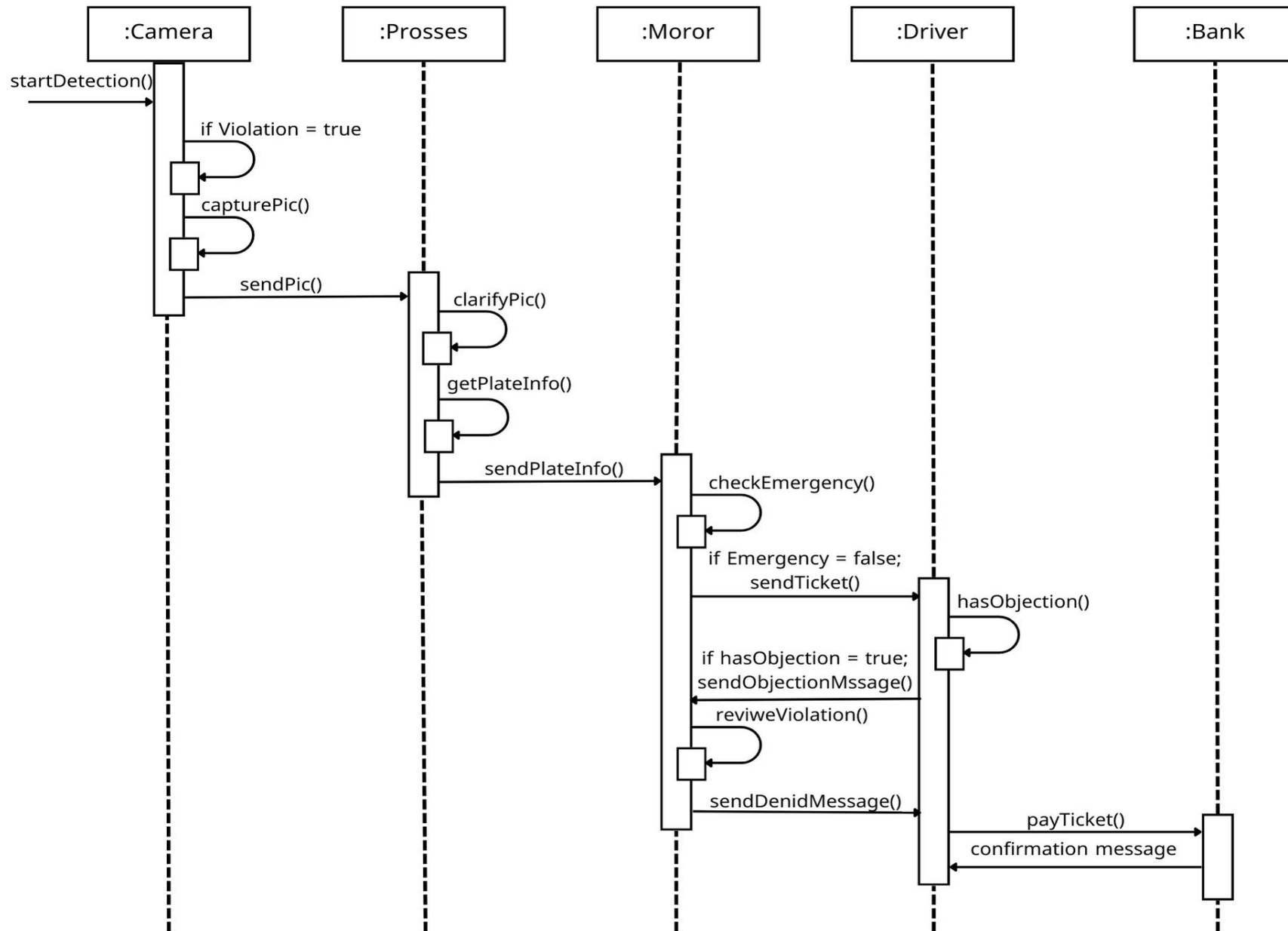
Traffic Violation System (Lab 8&9)



Prepared for
Prof. Awny Sayed

Prepared by
-Meshal Okairy 2237836
-Omar Bakhedar 2237708
-Muayad Bajandooh 2237970

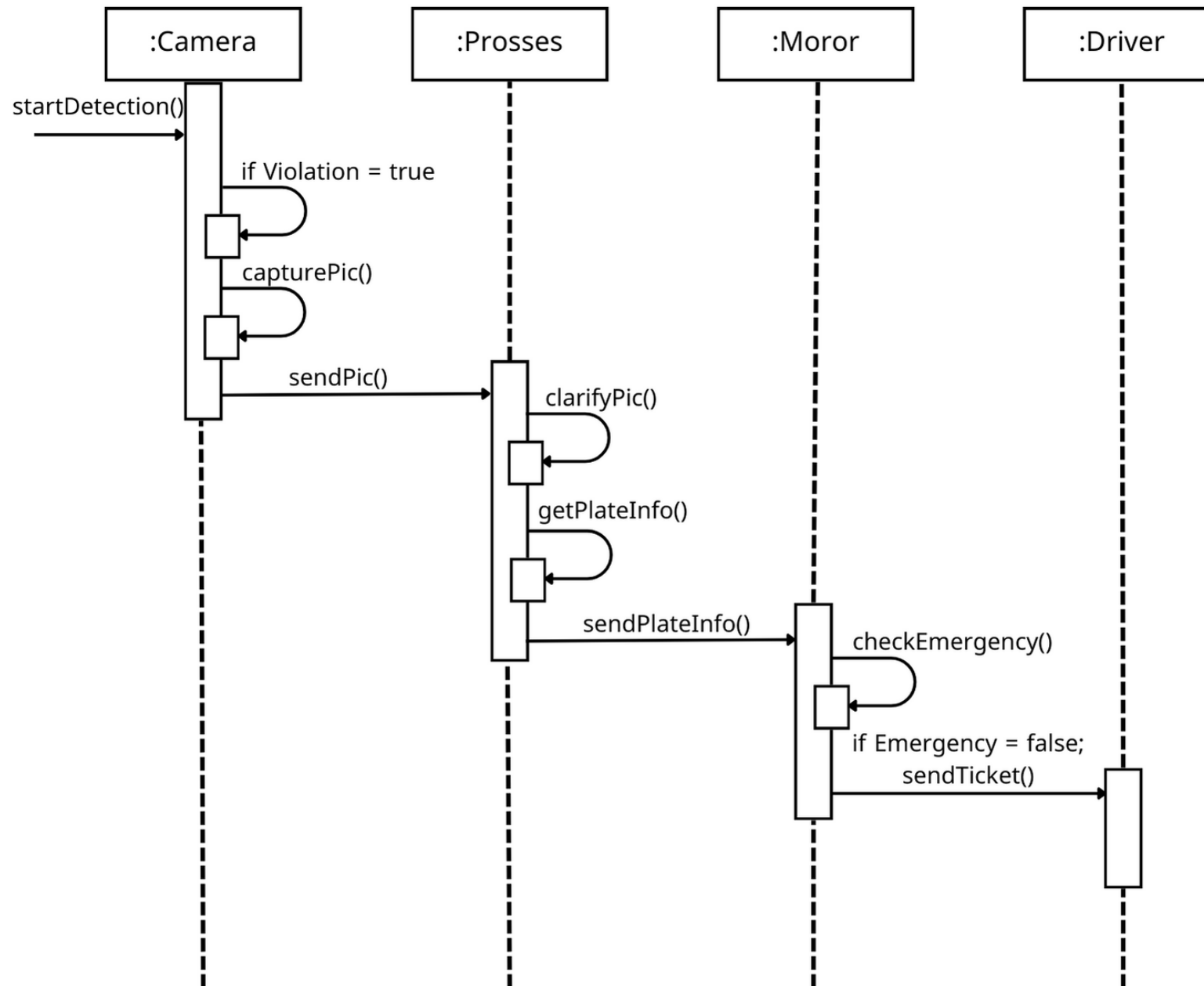
Scenario: Capture the violation handle the objection and pay.



Sequence of Interactions (Simplified):

- 1- "Camera" initiates the detection process by calling the **startDetection()** method.
- 2- "Camera" looking for violation.
- 3- "Camera" takes a photo by calling **capturePic()** method.
- 4- "Prosses" receives the photo from Camera through **sendPic()** method.
- 5- "Prosses" clarify the photo using **clarifyPic()** method.
- 6- "Prosses" get the plate details by invoking **getPlateInfo()** method.
- 7- "Prosses" sends the plate details to "Moror" by calling **sendPlateInfo()** method.
- 8- "Moror" checks if the violation was committed by an emergency (e.g. ambulance) vehicle or not.
- 9- if the violation was NOT committed by an emergency vehicle "Moror" sends a penalty to "Driver".
- 10- "Driver" sends his objection to "Moror" through **sendObjectionMessage()** method.
- 11- "Moror" reviews the violation and then sends back the decision.
- 12- "Driver" receives the decision message and then pays the ticket.
- 13- "Bank" receives the penalty amount through **payTicket()** method.
- 14- "Bank" sends back the confirmation message to "Driver".

Scenario: Capture the violation and notify Driver.



Sequence of Interactions (Simplified):

1. "Camera" initiates the detection process by calling the **startDetection()** method.
2. "Camera" sensors detect if a violation is happening.
3. "Camera" uses the **capturePic()** method to take a photo of the violation.
4. "Prosses" receives the raw photo from "Camera".
5. "Prosses" purify the photo by using **clarifyPic()** method.
6. "Prosses" collects the details of the car plate by using **getPlateInfo()** method.
7. "Prosses" sends the plate details to "Moror" by using **sendPlateInfo()** method
8. "Moror" checks if the violation is committed by an emergency vehicle by using the **checkEmergency()** method.
9. If the violation is committed by an emergency vehicle the ticket is dropped.
10. If the violation is committed by a non-emergency vehicle "Moror" sends the ticket to the Driver of the vehicle by using **sendTicket()** method.
11. The "Driver" receives the ticket.