Rearview Camera

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I have an older model car (a 2010 Mazda3) so it has no assistance when trying to reverse, aside from my mirrors. I wanted to create my own rearview camera in order to aid in my daily driving capabilities.

The purpose of a rearview camera is to help identify any blind spots or obstructions that might exist when a car is reversing. It should be activated based on the motion of the car and stream a video to a device or screen that the driver can see. It should also have some kind of alarm or notification if an object gets too close to the rear of the car, as an additional safety alert for the driver.

For this project, I would like the camera to activate based on the movement of the RPi, rather than based on motion detection, as this is more likely what will happen in a car. I also want this camera to detect objects that are near it and sound a warning alert when they are within close proximity as an alternate method of letting the driver know to be careful.

I intend to use Blynk as a single location in order to visualise this data and trigger relevant events related to each action.

**Trigger Events:**

Movement of the RPi – activates the camera and recording

Object Detection – the camera is able to detect specific objects that it see

Proximity Alert – if an object is too close to the RPi an alert is sent