

## DASHBOARD CAMERA

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### DOMAIN: INFORMATION TECHNOLOGY

A dash cam is an onboard camera that continuously records the view through a vehicle windscreen. It is attached to the interior windscreen or to the top of the dashboard. Hardware requires raspberry pi, SD card, USB and camera. The dashboard camera will record your entire trip which will provide security and it's a perfect solution for unscripted drivers especially when accident occur. The camera will start to record as soon as the car engine is started. The record can be exported to pendrive or SD card which will act as a proof incase of accident. These data can even be stored in Cloud via wifi connection so that it can be retrieved later. This project started out as an attempt to assess the capabilities of the Raspberry Pi camera module. In reading about this device and its capabilities, we decided to apply the knowledge learnt to a specific problem. These devices are sometimes called 'dash cams' and provide continuous (rolling) video recording. These devices are very popular in places like Russia but, are becoming more popular in the UK. They are usually used to capture evidence in support of insurance claims. We are looking to add one of these devices to all of our cars. The device has a power switch, to avoid unwanted drains on the battery. Our kit car uses a light-weight motorcycle battery, which is very easy to flatten with permanently connected loads. In normal operation it records video in 5 minute segments into a folder called 'video'. When these exceed a predefined storage limit, the oldest video clips are deleted until there is free space. These files are recorded at 1080p and 30fps. **'exit'** - the dashcam.sh program loop exits. **'parked'** - the Raspberry Pi keeps recording even after the ignition is switched off. This five-megapixel camera can take stills with a 2592 × 1944 resolution and record HD video in 1080p at a maximum frame rate of 30 frames per

second. The camera module does not support audio. This is a good video clip, showing the module set up process: The cable on the board cannot be extended and is also very thin and flat. This limits the distance possible between the Raspberry Pi and the camera board. The aim here is to provide continuous, high-quality video recording in a car, to capture significant events without human intervention.