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Assignment No. - 5

Aim - Understanding & connectivity of Raspberry - Pi / Beagle board with camera. Write an application to capture & store image.

Theory -

Raspberry Pi camera module
The raspberry Pi camera module V2 replaced the original camera module in April 2016. The V2 camera module has a Sony IMX2198 - megapixel sensor. The camera module can be used to take high-definition video as well as stills photograph. It's easy to use for beginners, but has plenty to offer advanced users if you are looking to expand your knowledge. We can also use the libraries we bundle with the camera to create effects.

Pi Camera :

Camera Preview -

```
from picamera import PiCamera
```

```
from time import sleep
```

```
camera = PiCamera()
```

```
camera.start_preview()
```

```
sleep(10)
```

```
camera.stop_preview()
```

Rotating the Camera -

```
camera.rotation = 180
```

```
camera.start_preview()
```

```
sleep(10)
```

```
camera.stop_preview()
```

Storing the Image -

```
from picamera import PiCamera
```

```
from time import sleep
```

```
camera = PiCamera()
```

```
camera.start_preview()
```

```
sleep(10)
```

Conclusion -

Thus, we have studied Pi Camera & also stored the image & video using Pi Camera.