

Rpi - **Project WatchDog**

**Use cases:**

1. **Patio Watcher**- intruder, time lapse - movie/picture
2. **Mobile Cam** - continuous stream - movie
3. **Dashboard Cam** - movie/picture

**Raspberry Pi Camera - Project**

**Design:**

* Attach/detach model
* Weather proof
* Power source enabled
* Wifi enabled
* Secured connectivity and H/W protection

**Accessories:**

**-** Rpi Kit

- Ribbon cable

- power source

- other accessories

- PIR sensor

**Application behavior**

1. Patio Watcher- intruder, time lapse - movie/picture
2. Mobile Cam - continuous stream - movie
3. Dashboard Cam - movie/picture

**Tools and Technologies:**

1. **Python - Pranav**
2. **JavaScript\ - Hemanth**

**References:**

<https://picamera.readthedocs.io/en/release-1.13/api_streams.html>

**Final Deployment Kit and Rating:**

* Portability
* Secured packing
* Accessibility
* Reliability
* Robustness

**Procurement items:**

<https://www.amazon.com/Raspberry-Pi-Camera-Module-Megapixel/dp/B01ER2SKFS/ref=sr_1_3?ie=UTF8&qid=1523837683&sr=8-3&keywords=raspberry+pi+3+camera>

<https://www.amazon.com/Adafruit-Flex-Cable-Raspberry-Camera/dp/B00XW2NCKS/ref=pd_sbs_147_5?_encoding=UTF8&pd_rd_i=B00XW2NCKS&pd_rd_r=24DQQPC2K0J1RSHAERK0&pd_rd_w=wQ743&pd_rd_wg=7ENvN&psc=1&refRID=24DQQPC2K0J1RSHAERK0>

<https://www.amazon.com/dp/B072HVZYHF/ref=sspa_dk_detail_2?psc=1&pd_rd_i=B072HVZYHF&pd_rd_wg=IiuGj&pd_rd_r=6C3SVCVMYC17M73KCK28&pd_rd_w=arRg4>

**Sample Code for PIR:**

**import RPi.GPIO as GPIO #Import GPIO library  
import time #Import time library  
GPIO.setmode(GPIO.BOARD) #Set GPIO pin numbering  
pir = 26 #Associate pin 26 to pir  
GPIO.setup(pir, GPIO.IN) #Set pin as GPIO in   
print "Waiting for sensor to settle"  
time.sleep(2) #Waiting 2 seconds for the sensor to initiate  
print "Detecting motion"  
while True:  
 if GPIO.input(pir): #Check whether pir is HIGH  
 print "Motion Detected!"  
 time.sleep(2) #D1- Delay to avoid multiple detection  
 time.sleep(0.1) #While loop delay should be less than detection(hardware) delay**







