

HARDWARE:

1)CAMERA MODULE:
IR CAMERA MODULE RI PI:

https://robu.in/product/raspberry-pi-infrared-ir-night-vision-surveillance-camera-module-500w-webcam/?gclid=Cj0KCQiAgebwBRDnARIsAE3eZjR1JaQWBgZjxuVLg8rv0Lp3unnLeTel0G8WmwfQb_N487AM7zq352QaAmGqEALw_wcB

Ardunio camera module:

https://robu.in/product/ov7670-640x480-vga-cmos-camera-image-sensor-module/?gclid=Cj0KCQiAgebwBRDnARIsAE3eZjSJl5wxGfkj9qxjpGUUpkDUiRm5Sbk9yqoPrdZaNW7E-L-GhONJpMqoaAkxaEALw_wcB

LINK FOR VEDIO interfacing camera module:<https://youtu.be/6bfY9JXOppl>

2) vibration sensor

https://robu.in/product/vibration-sensor-module-alarm-motion-sensor-module-vibration-switch-sw-420/?gclid=Cj0KCQiAgebwBRDnARIsAE3eZjSC6FRxylqLCIbheF_urYEq5j6Yq-H0NPJz3qD5pcmWPhKMtELFQ8MaArfGEALw_wcB

Interfacing

<https://electronics hobbyists.com/control-arduino-using-raspberry-pi-arduino-and-raspberry-pi-serial-communication/>

<https://circuitdigest.com/microcontroller-projects/arduino-sw-420-vibration-sensor-module-interfacing>

Pinout <https://images.app.goo.gl/ie9uMf73vuMZgGKZ9>

3) gas detection sensor

1.mq135. :

https://www.electronicshobbyists.com/mq135-air-quality-gas-sensor-module-india?gclid=CjwKCAiApOvwBRBUEiwAcZGdGHjKvKaKWij_7cP1q_67r0wupN9huMPvujLM4A-fPxdcC_36Lb1fGRoCgDgQAvD_BwE

Interfacing :(code)

<https://electronicsprojectshub.com/interfacing-mq-135-gas-sensor-with-arduino>

2. IR flame sensor :

https://www.roboelements.com/product/ir-flame-sensor-arduino-fire-detector-sensor/?gclid=Cj0KCQiAgebwBRDnARIsAE3eZjTIZ8Xw34nze6n2edaXsUal9-N5Ruk8IT70ShbiNGwsnIJ-fXlh1-AaAtw_EALw_wcB

Interfacing

<https://circuitdigest.com/microcontroller-projects/arduino-flame-sensor-interfacing>

3 flame sensor module :

https://robu.in/product/flame-sensor-module/?gclid=CjwKCAiApOvwBRBUEiwAcZGdGHqKmRVvKKWJiqmsp1GfEFXi2Ze9rkV4A_4r6SuJGn3e0HCLFFeuYxoCdgaQAvD_BwE

4) Corrosometer:

a) [Standard Electrical Resistance Corrosion Monitoring System](#)

Similar Video- <https://youtu.be/iHgGwSlyTU4>

b) <http://corrometer.com/product.html>

video- <https://youtu.be/hQLNtvK4na4>

Arduino and Raspberry Pi interfacing :

1

<https://youtu.be/QumlhvYtRKQ>

2

<https://electronics hobbyists.com/control-arduino-using-raspberry-pi-arduino-and-raspberry-pi-serial-communication/>

Hardware list:

1)R PI 4 B(4 GB):

https://robu.in/product/raspberry-pi-4-model-b-with-4-gb-ram/?gclid=CjwKCAiApOvwBRBUEiwAcZGdGJpJPepODD8ME2IXFiYW7qUXWbvxoQYIhizD3QXmpTSqKMpNkOxibhoChekQAvD_BwE

2)R PI CAMERA MODULE IR:

https://robu.in/product/raspberry-pi-infrared-ir-night-vision-surveillance-camera-module-500w-webcam/?gclid=Cj0KCQiAgebwBRDnARIsAE3eZjR1JaQWBgZjxuVLg8rv0Lp3unnLeTel0G8WmwfQb_N487AM7zq352QaAmGqEALw_wcB

3)vibration sensor:(digital pin)

https://robu.in/product/vibration-sensor-module-alarm-motion-sensor-module-vibration-switch-sw-420/?gclid=Cj0KCQiAgebwBRDnARIsAE3eZjSC6FRxylqLCIbheF_urYEq5j6Yq-H0NPJz3qD5pcmWPhKMtELFQ8MaArfGEALw_wcB

4)temperature sensor:(analog pin)

<https://robu.in/product/lm35d-analog-temperature-sensor-module-cable/>

5) air quality sensor:(analog pin)

<https://robu.in/product/mq-135-air-quality-detector-sensor-module-arduino/>

5)IR Flame Sensor for Arduino Fire Detector Sensor

https://www.roboelements.com/product/ir-flame-sensor-arduino-fire-detector-sensor/?gclid=Cj0KCQiAgebwBRDnARIsAE3eZjTIZ8Xw34nze6n2edaXsUal9-N5Ruk8IT70ShbiNGwsnIJ-fXIh1-AaAtw_EALw_wcB

6)smoke sensor:(digital or analog pin)

<https://robu.in/product/mq-2-mq2-smoke-gas-lpg-butane-hydrogen-gas-sensor-detector-module/>

7)humidity sensor:(digital pin)

<https://robu.in/product/am2301-capacitive-digital-temperature-humidity-sensor/>

