

## Overall nodeRED codes

```
[{"id":"7cec593b.b102c8","type":"tab","label":"Flow 1"},{"id":"d5b811fc.25eb2","type":"rpi-gpio in","z":"7cec593b.b102c8","name":"PIR_SENSOR","pin":"40","intype":"tri","debounce":"25","read":true,"x":375,"y":243,"wires":[["533cfe7d.c6c06"]]},{"id":"533cfe7d.c6c06","type":"function","z":"7cec593b.b102c8","name":"Detect Motion","func":"\\nlight = parseInt(msg.payload1)\\ncontext.peoplecount = context.peoplecount || 0;\\nif (msg.payload ==1){\\n  context.peoplecount +=1;\\n  msg.payload1 = 1;\\n}\\n\\nmsg.peoplecount = context.peoplecount;\\n\\nvar stream = msg.peoplecount\\nvar obj_stream=JSON.parse(stream)\\nmsg.payload1 = obj_stream;\\nreturn msg;","outputs":1,"noerr":0,"x":576,"y":242,"wires":[["b2815323.09d7b","57657c18.d67d94","ca80f2c3.48633","6b893bc6.dde034","19d9d96c.0699e7"]]},{"id":"b2815323.09d7b","type":"debug","z":"7cec593b.b102c8","name":"","active":true,"console":"false","complete":"payload1","x":821,"y":241,"wires":[]}, {"id":"57657c18.d67d94","type":"rpi-gpio out","z":"7cec593b.b102c8","name":"","pin":"16","set":true,"level":"0","out":"out","x":863,"y":301,"wires":[]}, {"id":"361cc98.ababb36","type":"ui_switch","z":"7cec593b.b102c8","name":"Off the Switch","label":"Light Switch","group":"6b944e1b.7e5ce","order":0,"width":0,"height":0,"passthru":false,"decouple":"false","topic":"sensors/light","style":"","onvalue":"1","onvalueType":"num","onicon":"","oncolor":"","offvalue":"0","offvalueType":"num","officon":"","offcolor":"","x":868,"y":440,"wires":[["57657c18.d67d94"]]}, {"id":"ca80f2c3.48633","type":"mqtt out","z":"7cec593b.b102c8","name":"","topic":"sensors/motion","qos":"","retain":"","broker":"2e15337e.065e8c","x":771,"y":77,"wires":[]}, {"id":"6b893bc6.dde034","type":"ui_text","z":"7cec593b.b102c8","group":"6b944e1b.7e5ce","order":0,"width":0,"height":0,"name":"motion sensor information","label":"motion sensor information","format":"{{msg.peoplecount}}","layout":"row-spread","x":898,"y":473,"wires":[]}, {"id":"19d9d96c.0699e7","type":"camerapi-takephoto","z":"7cec593b.b102c8","filemode":"1","filename":"photo1.JPEG","filedefpath":"0","filepath":"/home/pi/Pictures/","fileformat":"jpeg","resolution":"1","rotation":"0","flip":"0","flipv":"0","brightness":"50","contrast":"0","sharpness":"0","imageeffect":"none","name":"","x":846,"y":547,"wires":[["45a73.4eaa258dc","db77a316.bd8"]]}, {"id":"45a73.4eaa258dc","type":"debug","z":"7cec593b.b102c8","name":"","active":true,"console":"false","complete":"payload","x":1064,"y":550,"wires":[]}, {"id":"db77a316.bd8","type":"mqtt out","z":"7cec593b.b102c8","name":"","topic":"sensors/motion","qos":"","retain":"","broker":"2e15337e.065e8c","x":1074,"y":604,"wires":[]}, {"id":"7fa229e1.fafdc8","type":"visual-recognition-v3","z":"7cec593b.b102c8","name":"","apikey":"a91fa0b60315920648424f016aad14612cbb3d86","image-feature":"classifyImage","lang":"en","x":740,"y":905,"wires":[["f3069c98.7332f","5365637f.de274c"]]}, {"id":"968628bc.26e798","type":"http in","z":"7cec593b.b102c8","name":"","url":"/reco","method":"get","swaggerDoc":"","x":370,"y":539,"wires":[["c2fbdc96.7b91b"]]}, {"id":"d6a61ed.9a434e","type":"http response","z":"7cec593b.b102c8","name":"HTTP Response","x":1026,"y":788,"wires":[]}, {"id":"c2fbdc96.7b91b","type":"switch","z":"7cec593b.b102c8","name":"Check image param","property":"payload.imageurl","propertyType":"msg","rules":[{"t":"null"}, {"t":"else"}],"checkall":"false","outputs":2,"x":491,"y":639,"wires":[["fe0aab91.f9e588"],["a561df63.960b"]]}, {"id":"fe0aab91.f9e588","type":"template","z":"7cec593b.b102c8","name":"Get Image
```

```

URL","field":"payload","fieldType":"msg","format":"html","syntax":"mustache","template":"<html>\n<h
ead><title>Watson Visual Recognition on Node-RED</title></head>\n<body>\n<h1>Welcome to the
Watson Visual Recognition Demo on Node-RED</h1>\n  <h2>Select an image URL</h2>\n  <form
action=\"{{req._parsedUrl.pathname}}\">\n    <img src=\"https://raw.githubusercontent.com/watson-
developer-cloud/visual-recognition-nodejs/master/public/images/samples/1.jpg\" height='100'/>\n
<img src=\"https://raw.githubusercontent.com/watson-developer-cloud/visual-recognition-
nodejs/master/public/images/samples/2.jpg\" height='100'/>\n    <img
src=\"https://raw.githubusercontent.com/watson-developer-cloud/visual-recognition-
nodejs/master/public/images/samples/3.jpg\" height='100'/>\n    <img
src=\"https://raw.githubusercontent.com/watson-developer-cloud/visual-recognition-
nodejs/master/public/images/samples/4.jpg\" height='100'/>\n    <br/>Copy above image location
URL or enter any image URL:<br/>\n    <input type=\"text\" name=\"imageurl\"/>\n    <input
type=\"submit\" value=\"Analyze\"/>\n
</form>\n</body>\n</html>","x":776,"y":754,"wires":[["d6a61ed.9a434e"]],{"id":"f3069c98.7332f","ty
pe":"template","z":"7cec593b.b102c8","name":"Report","field":"payload","fieldType":"msg","format":"
html","syntax":"mustache","template":"<html>\n<head><title>Watson Visual Recognition on Node-
RED</title></head>\n<body>\n<h1>Node-RED Watson Visual Recognition output</h1>\n<p>Analyzed
image: {{payload}}<br/><img src=\"{{payload}}\" height='100'/></p>\n<table border='1'>\n
<thead><tr><th>Name</th><th>Score</th></tr></thead>\n{{#result.images.0.classifiers.0.classes}}\n
<tr><td><b>{{class}}</b></td><td><i>{{score}}</i></td></tr>\n{{/result.images.0.classifiers.0.classes}}\n
</table>\n<form action=\"{{req._parsedUrl.pathname}}\">\n  <input type=\"submit\" value=\"Try
again\"/>\n</form>\n</body>\n</html>","x":871,"y":822,"wires":[["d6a61ed.9a434e"]],{"id":"a561df6
3.960b","type":"change","z":"7cec593b.b102c8","name":"Extract img
URL","rules":[{"t":"set","p":"payload","pt":"msg","to":"payload.imageurl","tot":"msg"}],"action":"","pro
perty":"","from":"","to":"","reg":false,"x":568,"y":843,"wires":[["7fa229e1.fafdc8"]],{"id":"37b0a6f0.61
ed9a","type":"comment","z":"7cec593b.b102c8","name":"!!Make sure you bind Visual Recognition
Service to Node-RED App!!","info":"When running in BlueMix, the credentials for the service will be
filled-in from BMix credentials management.\nFor this to work, the Visual Recognition Service has to be
bound to the Node-RED
application.\n","x":747,"y":940,"wires":[],{"id":"5365637f.de274c","type":"function","z":"7cec593b.b10
2c8","name":"get labels","func":"var labels = msg.result.images[0].classifiers[0].classes;\nmsg.payload =
labels.map(function(i){\n  return i.class;\n});\nreturn
msg;","outputs":1,"noerr":0,"x":938,"y":898,"wires":[["55d6676d.25e218"]],{"id":"55d6676d.25e218","
type":"debug","z":"7cec593b.b102c8","name":"","active":true,"console":"false","complete":"payload","
x":1098,"y":872,"wires":[],{"id":"165368ca.e45687","type":"ui_template","z":"7cec593b.b102c8","grou
p":"6b944e1b.7e5ce","name":"","order":0,"width":0,"height":0,"format":"<script>\nvar value =
'1';\n// or overwrite value in your callback function ...\nthis.scope.action = function() { return value;
}\n\nfunction updateF() {\n  var source = '/photo1.JPEG',\n  timestamp = (new Date()).getTime(),\n  newUrl = source + '?_=' + timestamp;\n  document.getElementById(\"photo\").src =
newUrl;\n}\n\n</script>\n\n<md-button ng-click=\"send({payload:action()})\"
onclick=\"setTimeout(updateF, 2500);\" style=\"padding:40px; margin-bottom: 40px;\">\n  <ui-icon
icon=\"camera\"></ui-icon>\n  Take a photo<br>\n</md-button>\n\n<div style=\"margin-
bottom:40px;\">\n  <img src=\"/photo1.JPEG\" id=\"photo\" width=\"100%\"
height=\"100%\">\n</div>","storeOutMessages":true,"fwdInMessages":true,"templateScope":"local","x

```

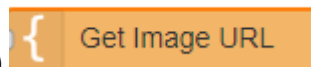
```
":630,"y":551,"wires":[["19d9d96c.0699e7"]]],{"id":"6b944e1b.7e5ce","type":"ui_group","z":"","name":  
"Default IOT CA2  
Page","tab":"7791672f.1c0798","disp":true,"width":"6","collapse":false},{"id":"2e15337e.065e8c","type  
":"mqtt-  
broker","z":"","broker":"localhost","port":"1883","clientId":"","usetls":false,"compatmode":true,"keepal  
ive":"60","cleansession":true,"willTopic":"","willQos":"0","willPayload":"","birthTopic":"","birthQos":"0"  
,"birthPayload":""},{"id":"7791672f.1c0798","type":"ui_tab","z":"","name":"Home","icon":"dashboard"}]
```



Detect Motion

```
light = parseInt(msg.payload1)
context.peoplecount = context.peoplecount || 0 ;
if (msg.payload ==1){
    context.peoplecount +=1;
    msg.payload1 = 1;
}
msg.peoplecount = context.peoplecount;
```

```
var stream = msg.peoplecount
var obj_stream=JSON.parse(stream)
msg.payload1 = obj_stream;
return msg;
```



Get Image URL (Bluemix Image Recognition)

```
<html>
<head><title>Watson Visual Recognition on Node-RED</title></head>
<body>
<h1>Welcome to the Watson Visual Recognition Demo on Node-RED</h1>
  <h2>Select an image URL</h2>
  <form action="{{req._parsedUrl.pathname}}">
    
    
```

```

```

```

```

```
<br/>Copy above image location URL or enter any image URL:<br/>
```

```
<input type="text" name="imageurl" />
```

```
<input type="submit" value="Analyze" />
```

```
</form>
```

```
</body>
```

```
</html>
```

Report 

```
<html>
```

```
<head><title>Watson Visual Recognition on Node-RED</title></head>
```

```
<body>
```

```
<h1>Node-RED Watson Visual Recognition output</h1>
```

```
<p>Analyzed image: {{payload}}<br/></p>
```

```
<table border='1'>
```

```
<thead><tr><th>Name</th><th>Score</th></tr></thead>
```

```
{{#result.images.0.classifiers.0.classes}}
```

```
<tr><td><b>{{class}}</b></td><td><i>{{score}}</i></td></tr>
```

```
{{/result.images.0.classifiers.0.classes}}
```

```
</table>
```

```
<form action="{{req._parsedUrl.pathname}}">
```

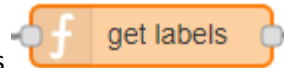
```
<input type="submit" value="Try again" />
```

```
</form>
```

```
</body>
```









































```
</html>
```

Get labels



```
var labels = msg.result.images[0].classifiers[0].classes;
msg.payload = labels.map(function(i){
  return i.class;
});
return msg;
```

## NodeRED Installed nodes (if troubleshooting is needed)

<div><div> mcp3008</div><div> 0.0.2</div><div><div>&gt; 1 node</div><div>disable all</div></div></div>	<div><div> node-red-node-aws</div><div> 0.1.3</div><div><div>&gt; 4 nodes</div><div>in use</div></div></div>
<div><div> node-red</div><div> 0.16.2</div><div><div>&gt; 48 nodes</div><div>in use</div></div></div>	<div><div> node-red-node-cf-cloudant</div><div> 0.2.17</div><div><div>&gt; 3 nodes</div><div>in use</div></div></div>
<div><div> node-red-contrib-aws</div><div> 0.3.3</div><div><div>&gt; 16 nodes</div><div>in use</div></div></div>	<div><div> node-red-node-email</div><div> 0.1.21</div><div><div>&gt; 2 nodes</div><div>disable all</div></div></div>
<div><div> node-red-contrib-aws-dynamodb</div><div> 0.0.5</div><div><div>&gt; 1 node</div><div>remove</div><div>disable all</div></div></div>	<div><div> node-red-node-feedparser</div><div> 0.1.7</div><div><div>&gt; 1 node</div><div>disable all</div></div></div>
<div><div> node-red-contrib-aws-iot-hub</div><div> 0.1.12</div><div><div>&gt; 4 nodes</div><div>in use</div></div></div>	<div><div> node-red-node-google</div><div> 0.1.3</div><div><div>&gt; 9 nodes</div><div>remove</div><div>disable all</div></div></div>
<div><div> node-red-contrib-camerapi</div><div> 0.0.35</div><div><div>&gt; 1 node</div><div>in use</div></div></div>	<div><div> node-red-node-mysql</div><div> 0.0.16</div><div><div>&gt; 2 nodes</div><div>in use</div></div></div>
<div><div> node-red-contrib-dynamodb</div><div> 0.0.5</div><div><div>&gt; 2 nodes</div><div>remove</div><div>disable all</div></div></div>	<div><div> node-red-node-pi-mcp3008</div><div> 0.0.7</div><div><div>&gt; 1 node</div><div>disable all</div></div></div>
<div><div> node-red-contrib-ibm-watson-iot</div><div> 0.2.8</div><div><div>&gt; 3 nodes</div><div>in use</div></div></div>	<div><div> node-red-node-rbe</div><div> 0.1.6</div><div><div>&gt; 1 node</div><div>disable all</div></div></div>
<div><div> node-red-contrib-mjpgcamera</div><div> 1.0.4</div><div><div>&gt; 1 node</div><div>remove</div><div>disable all</div></div></div>	<div><div> node-red-node-twitter</div><div> 0.1.9</div><div><div>&gt; 3 nodes</div><div>disable all</div></div></div>
<div><div> node-red-dashboard</div><div> 2.8.0</div><div><div>&gt; 20 nodes</div><div>in use</div></div></div>	<div><div> node-red-node-watson</div><div> 0.6.5</div><div><div>&gt; 27 nodes</div><div>in use</div></div></div>