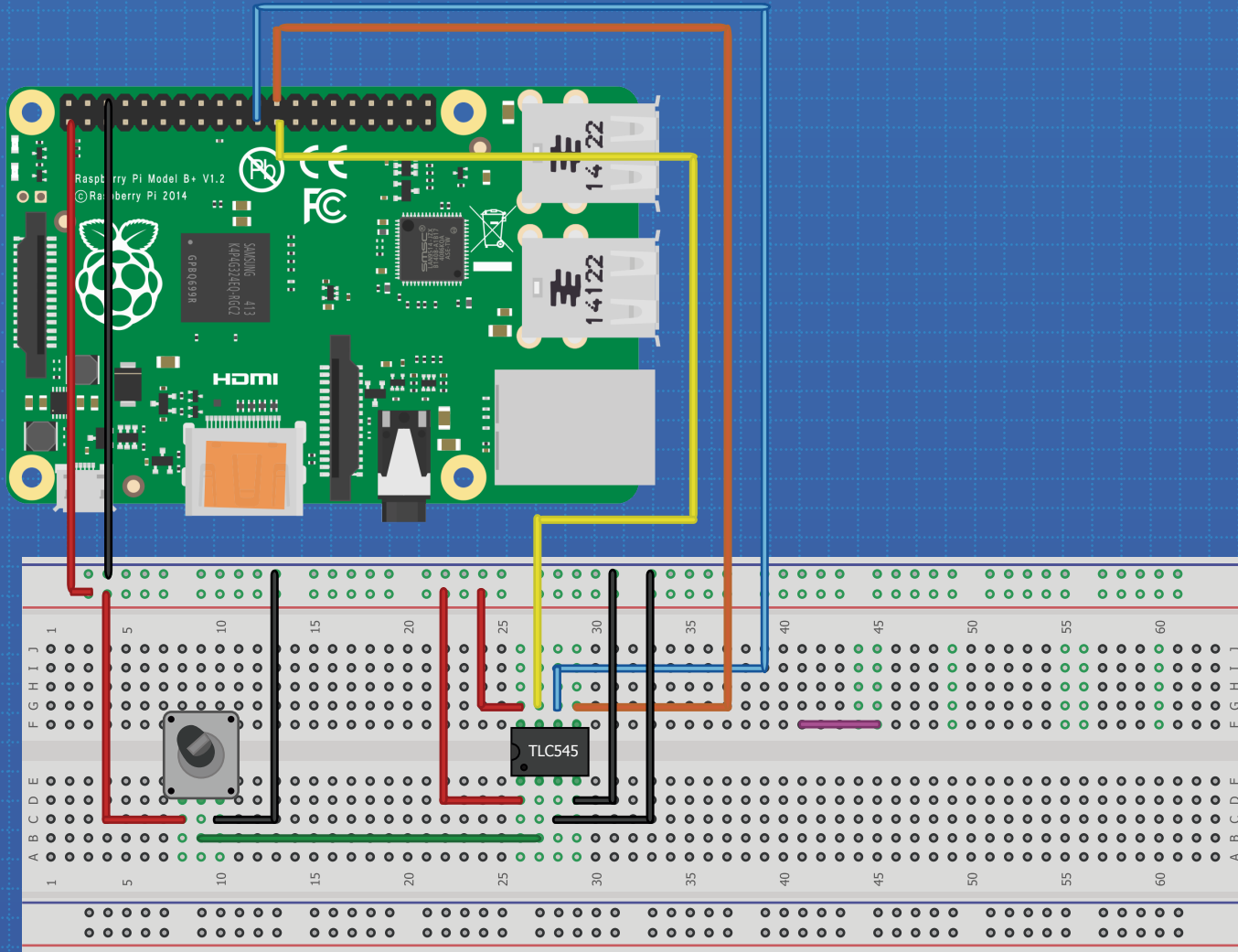


Setting up the circuit



Python Code

```
#!/usr/bin/python
import spidev
import time
import sys

#create SPI instance, open bus
spi = spidev.SpiDev()
spi.open(0, 0)

while True:
    sys.stdout.flush()
    # get 1 byte from TLC
    fromTLC = spi.xfer2([0x00])
    per = (fromTLC[0] / 255.00) * 100
    volt = per * 3.3 / 100
    sys.stdout.write("{value: \"%s\" }\n" % volt)
    sys.stdout.flush()
    time.sleep(1)
```

Device JSON

```
{  "name": "voltage-potentiometer",
  "description": "Voltage",
  "meta": {  "any": "key",
             "kind": "dummy"},
  "ttl": 30,
  "resources": [{  "type": "Resources",
                   "name": "value",
                   "meta": {},
                   "agent": {
                     "type": "service",
                     "dir": null,
                     "exec": "python /home/pi/code/potentiometer_lslc-py",
                     "representation": {  "text/plain": {"type": "number"}
                   }
                   },
                   "protocols": [  "type": "REST",
                                  "methods": ["GET"],
                                  "content-types": ["application/json"]
                   ]
                 }
                ]
}
```

Resource Catalog JSON

```
...
"resources": [{
  "id" : "rc/demo-dgw/voltage-potentiometer/value",
  "type" : "Resource",
  "name" : "value",
  "meta" : {},
  "protocols" : [{
    "type" : "REST",
    "endpoint" : {
      "url" : "http://fqdn-of-the-host:8080/rest/voltage-potentiometer/value"
    },
    "methods" : ["GET"],
    "content-types" : ["text/plain"]
  }],
  "representation" : {
    "text/plain" : { "type" : "number" }
  },
  "device" : "/rc/demo-dgw/voltage-potentiometer"
}, ...
```

Curl

C:\>

C:\>curl -H "Content-Type:application/json" http://172.16.1.104:8080/rest/voltage-potentiometer/value
{value: "2.27764705882"}

C:\>curl -H "Content-Type:application/json" http://172.16.1.104:8080/rest/voltage-potentiometer/value
{value: "3.3"}

C:\>curl -H "Content-Type:application/json" http://172.16.1.104:8080/rest/voltage-potentiometer/value
{value: "2.72764705882"}

C:\>curl -H "Content-Type:application/json" http://172.16.1.104:8080/rest/voltage-potentiometer/value
{value: "2.62705882353"}

C:\>curl -H "Content-Type:application/json" http://172.16.1.104:8080/rest/voltage-potentiometer/value
{value: "2.62705882353"}

C:\>curl -H "Content-Type:application/json" http://172.16.1.104:8080/rest/voltage-potentiometer/value
{value: "3.3"}

C:\>curl -H "Content-Type:application/json" http://172.16.1.104:8080/rest/voltage-potentiometer/value
{value: "3.3"}

C:\>curl -H "Content-Type:application/json" http://172.16.1.104:8080/rest/voltage-potentiometer/value
{value: "3.3"}

C:\>curl -H "Content-Type:application/json" http://172.16.1.104:8080/rest/voltage-potentiometer/value
{value: "0.0"}

Freeboard



freeboard

LOAD FREEBOARD

SAVE FREEBOARD

SET DEFAULT

ADD PANE

DATASOURCES

Name	Last Updated		
Voltage	never		
ADD			

←

↑

→

Voltage

datasources["Volta...

+

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