

Temp Commons
(static libraries and documentation)

Temperature Data Collection Project

logTemp() every 1 minute

logTemp() every 1 minute

Arduino
(C / C++)

Raspberry Pi
(Python)

HTTP - POST
(Every 10 minutes)

HTTP - POST
(Every 10 minutes)

```
{
  "device_id" : 123456789,
  "location" : room,
  "start_datetime" : "Sat Jul 9 19:59:59 EDT 2016"
  "stop_datetime" : "Sat Jul 9 19:59:59 EDT 2016"
  "temperature_data" : {
    "temperature_1" : {
      "temp" : 78
      "datetime" : "Sat Jul 9 19:59:59 EDT 2016"
    },
    "temperature_2" : {
      "temp" : 78,
      "datetime" : "Sat Jul 9 19:58:59 EDT 2016"
    }
  }
}
```

/send_data/v1
REST Endpoint

Send JSON array to
server

Send JSON array to
client

HTTP - GET

HTTP - GET

Android App
(Java)

Web Browser
(JavaScript)

Data Processor

Produce / consume JSON, write
temperature data to data store

Insert / find individual
temperature entries

MongoDB
(Data Store)

```
{
  "device_id" : "123456789",
  "location" : "room",
  "temperature" : 78,
  "datetime" : "Sat Jul 9 19:59:59 EDT 2016"
}
```