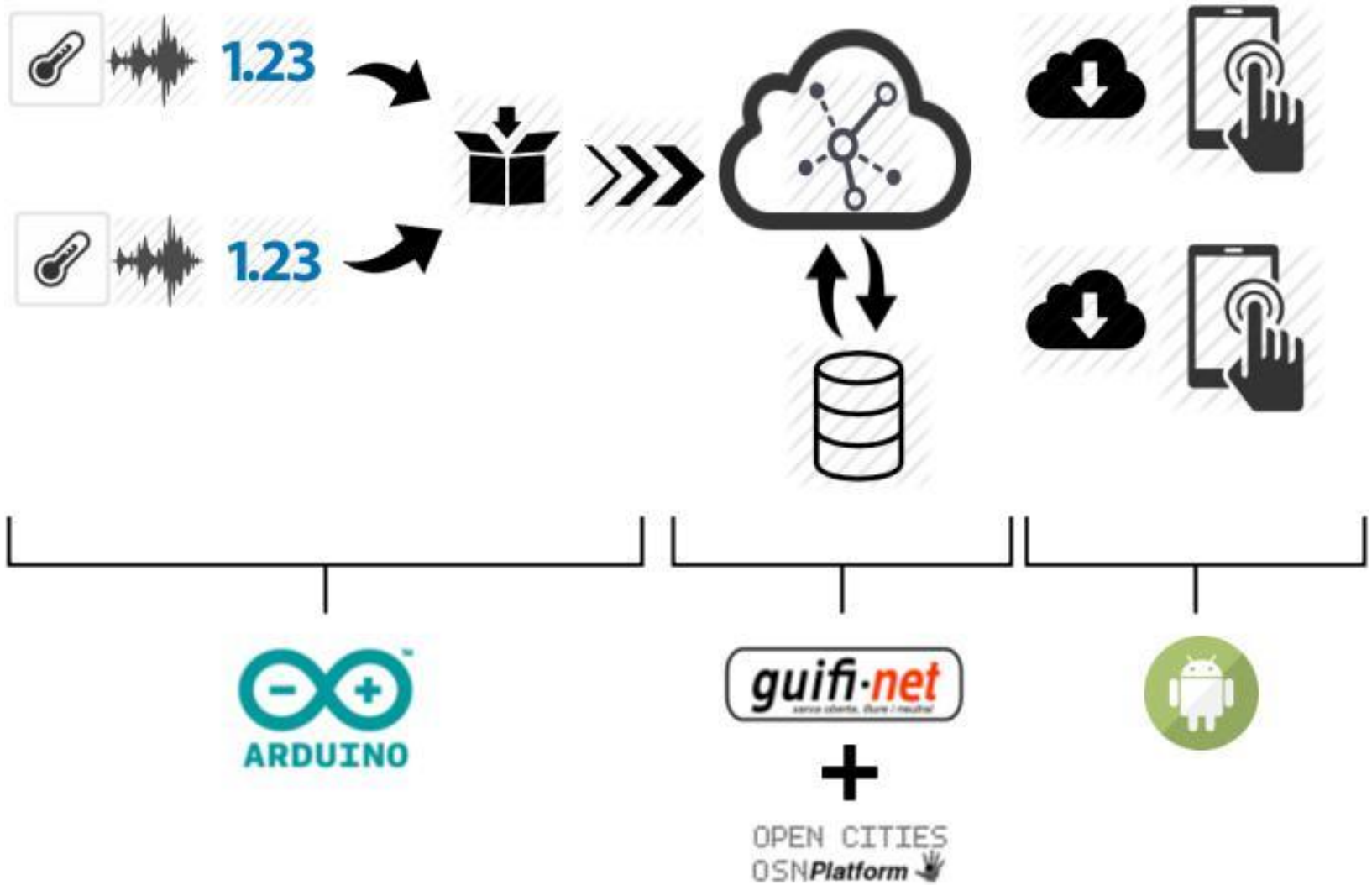


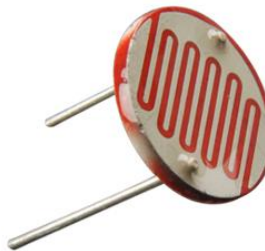
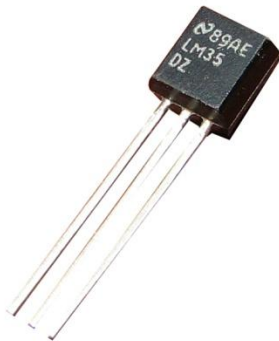
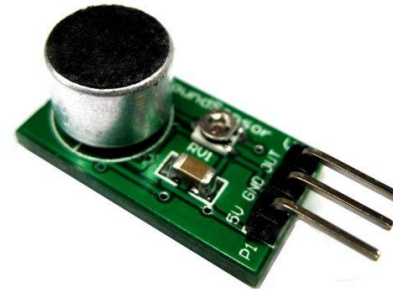
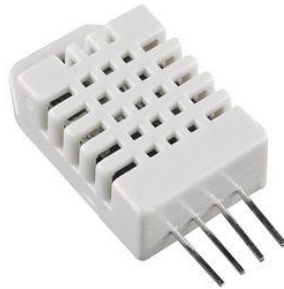
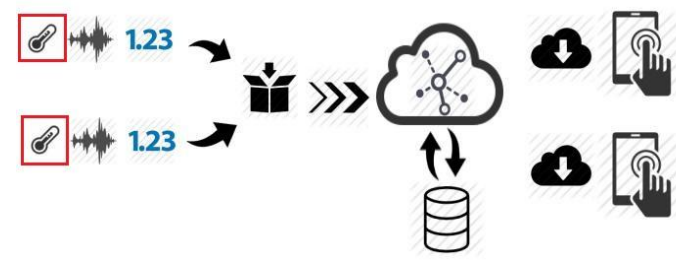
A BOTTOM UP SENSOR TESTBED

Alumno: Sergio Almendros Díaz
Tutor: Jaume Barceló

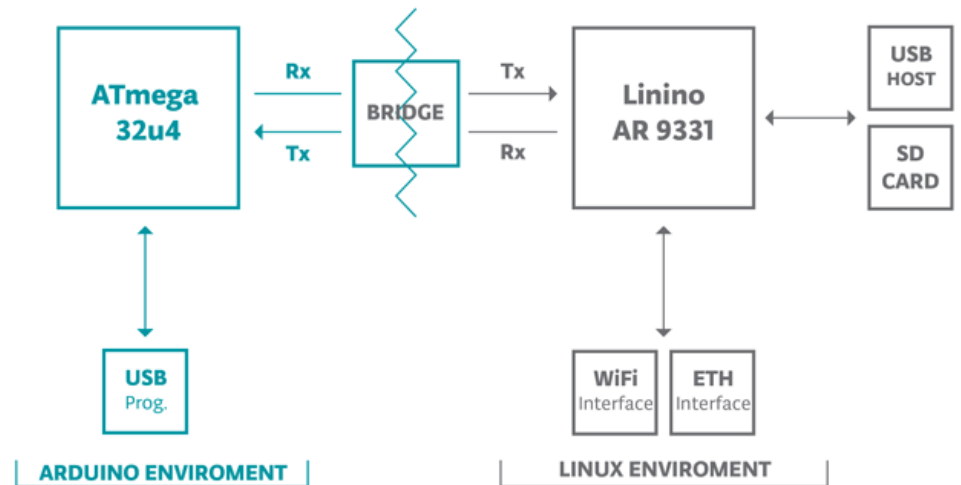
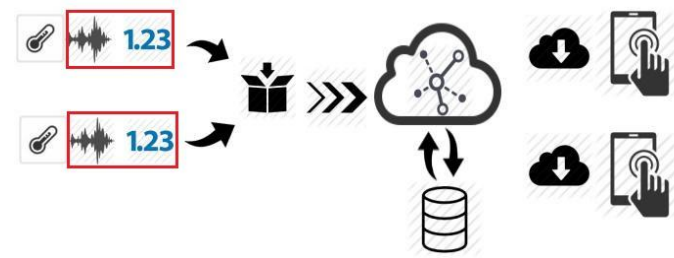
INTRODUCTION



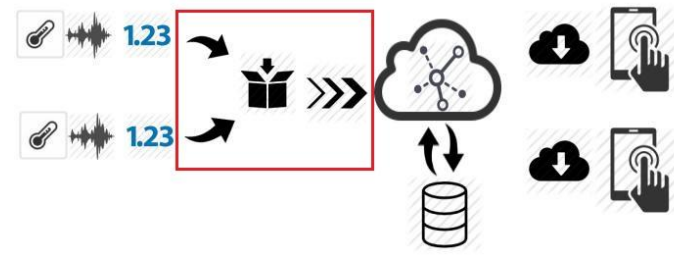
SENSORS



ARDUINO



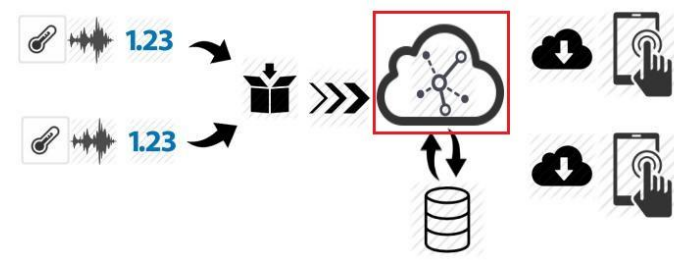
PYTHON



- Modular
- Fast prototyping
- Easier to understand

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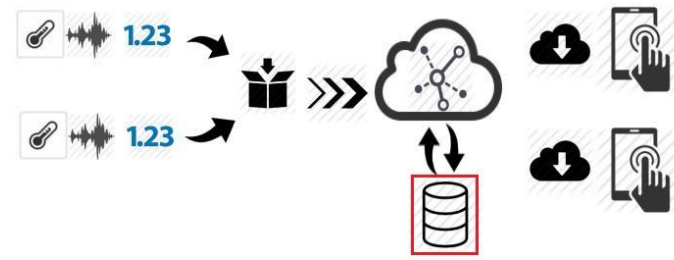
COMMUNITY NETWORK



- Guifi.
- Participation philosophy.
- Open, free and neutral network.



STORAGE RESOURCE BROKER

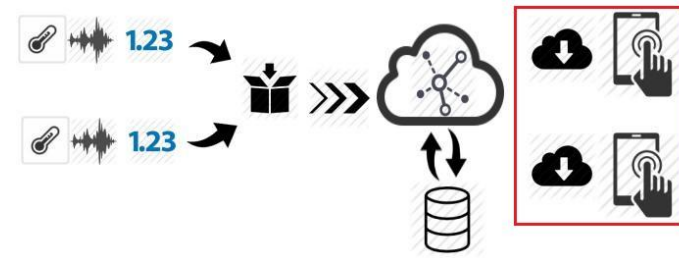


- **Opencities (at UPF)**
- **Improving both projects**
- **Intermediary**

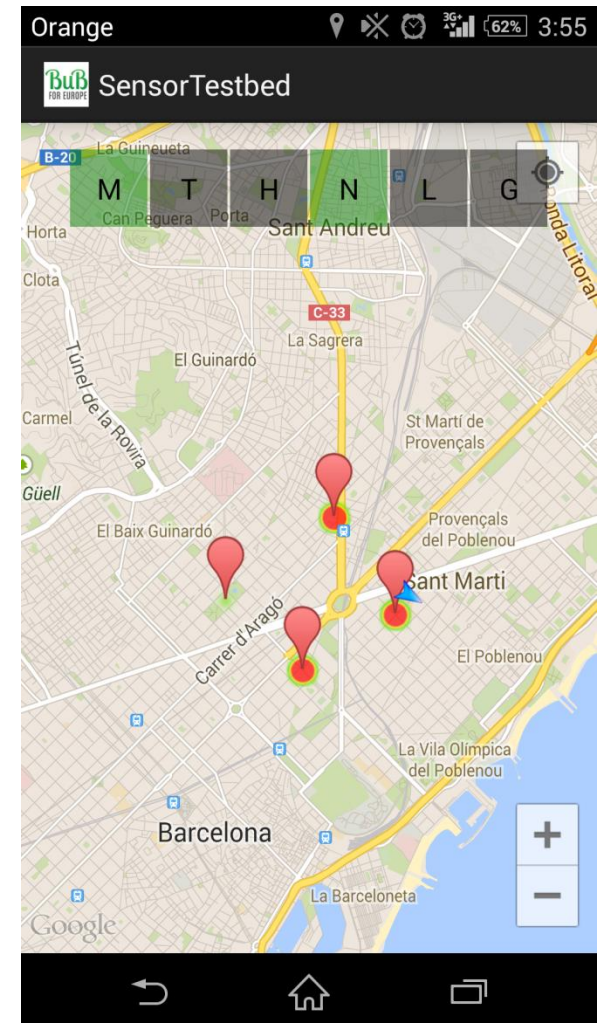
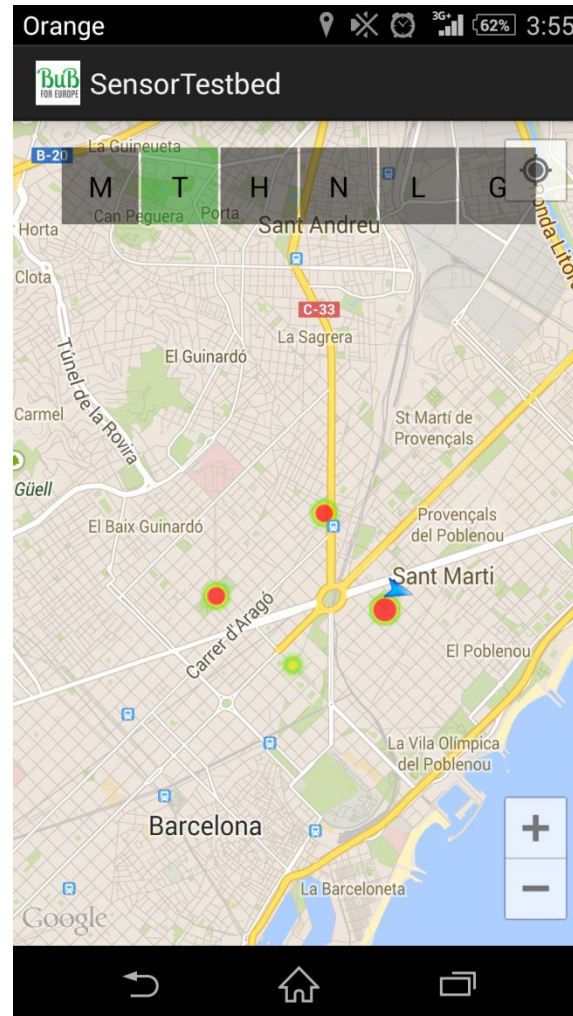
OPEN CITIES
OSN*Platform* 🖐️



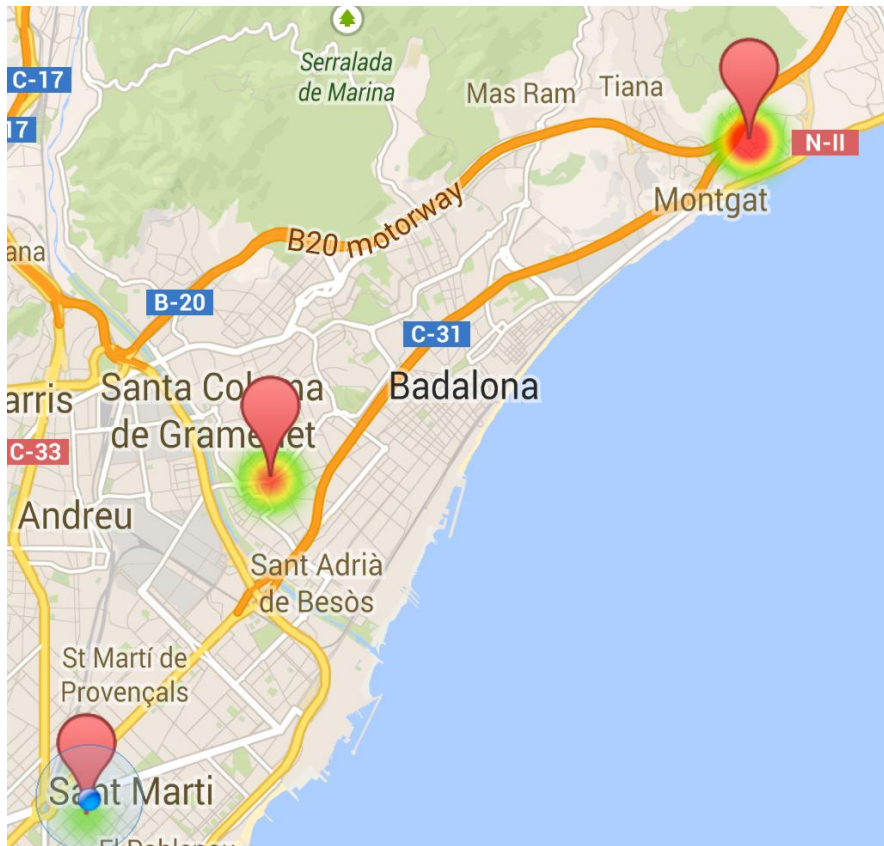
VISUALIZATION PLATFORM



- Easy to understand
- Markers and Heatmap points
- Google Maps and utility library

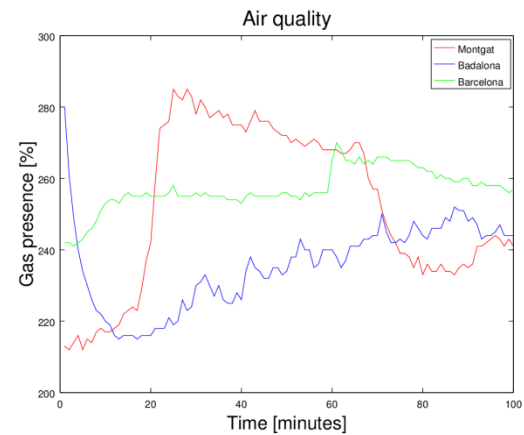
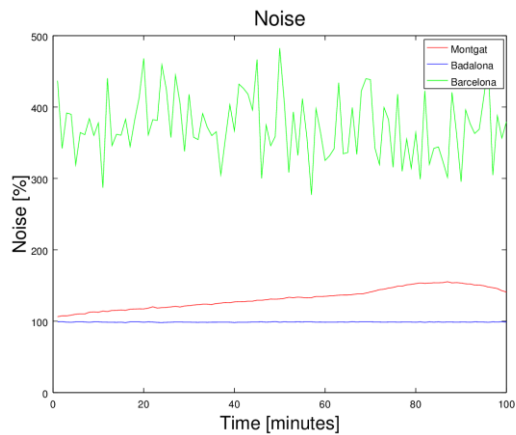
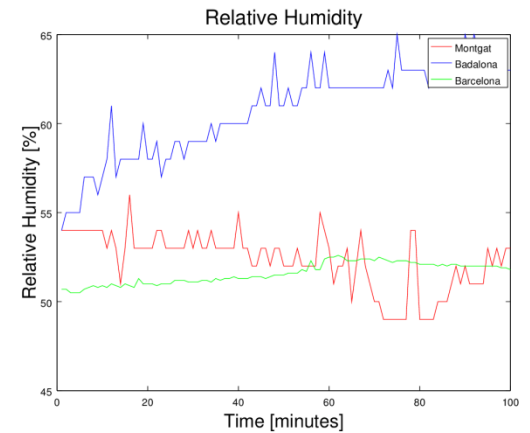
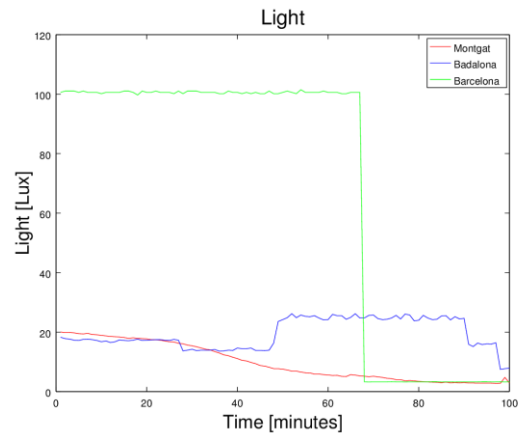
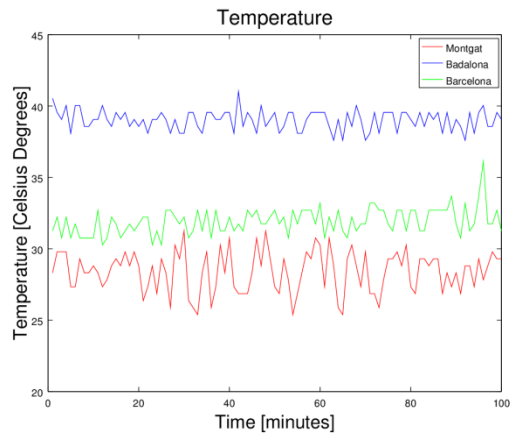


TESTBED

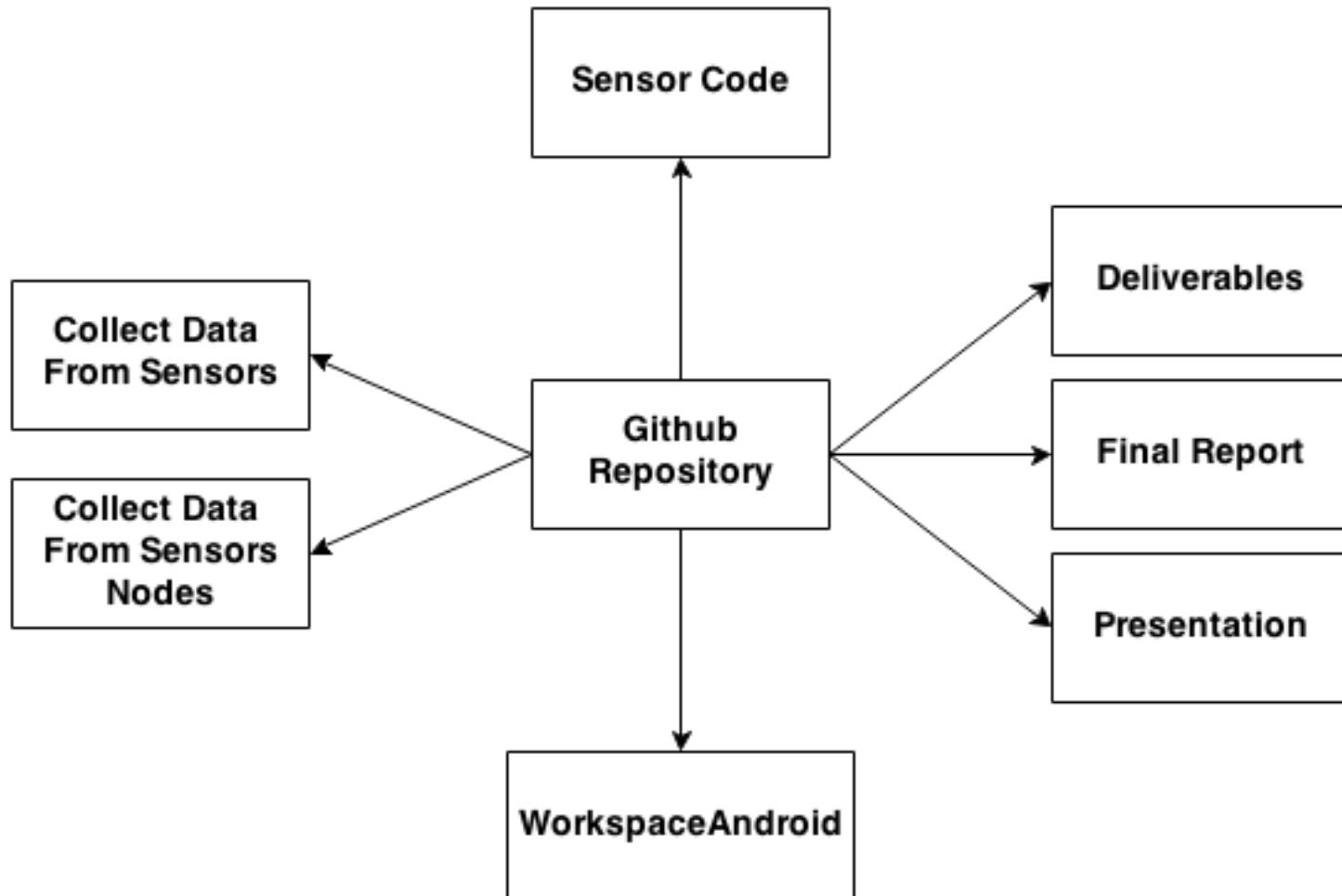


- **Free space**
- **Different locations**
- **Display the data into some graphs**

TESTBED RESULTS



REPOSITORY



CONCLUSIONS



- **Deployment**
- **Inexpensive**
- **Open source**
- **Mobile App**
- **Github Repository**
- **Goals Accomplished**

FUTURE WORK



- Can be improve
- Build a prototype
- PoE
- Improve Android App
- Diffuse