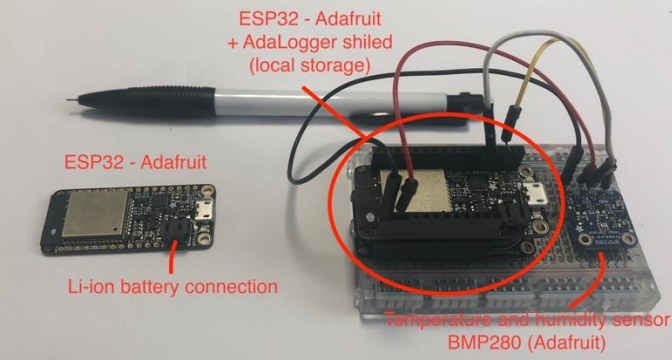




European Project Semester

PROJECT OUTLINE

Project dates: March 2019 - June 2019	
Title: Energy study and prototyping of a temperature sensor based on ESP32	
Project activity areas: Electronic, computer science, IoT	Keywords: IoT, energy, sensor, ESP32, market study and industrialization
Tutor's name and coordinates Client – End-user: ENIT ENIT Technical Supervisors + contacts: cedrik.beler@enit.fr daniel.dixneuf@enit.fr	Project origin : Research, innovation
Project technical background: Internet of Things (IoT) is part of the industry 4.0 revolution. One strong constraint of IoT is related to its energy consumption and therefore its alimentation. This project consists in doing a simple temperature sensor that is connected to a given server (built by the client) but according to 3 energy alimentations strategies : <ul style="list-style-type: none">- from 220V AC/DC- from a li-ion battery- from a li-ion battery coupled with a solar panel Moreover, we want the sensor to work even if the server collecting the data is offline (meaning the sensor has a proper memory). A commercialization study could be conducted especially for the AC/DC strategy.	
	
Studied topics: <ul style="list-style-type: none">- Energy alimentation (AC/DC, battery, solar panel)- Arduino / ESP32- Client/Server technologies- Industrialization (feasibility, patent research, cost study, ...)	