

# **Fuzzy logic cloud engine for Arduino**

# About Arduino

Arduino is a single-board microcontroller designed to make the process of using electronics in multidisciplinary projects more accessible.

Open Source

Pre-assembled or do-it-yourself kits

# Building Arduino

Testing the sensor

Exploring the code

Rewriting the code

# Making Arduino energy efficient

But how?

# Saving energy

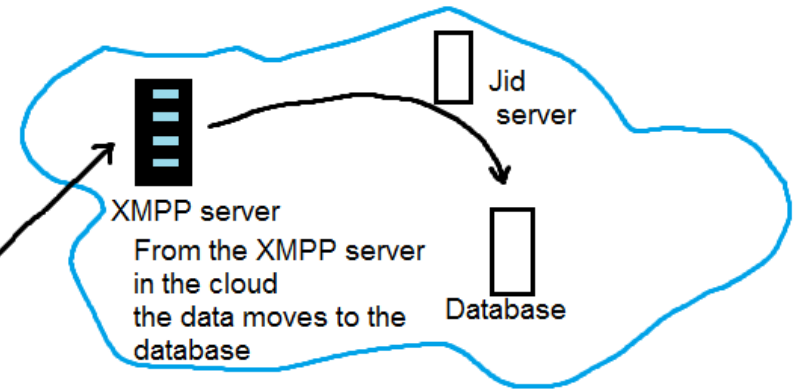
1. Arduino collects and stores data
2. Arduino sends data to cloud and after sending goes idle
3. In the cloud fuzzy logic algorithm will predict new data using the collected data

After a set amount of time repeat steps 1-3



# The idea:

Because only a limited amount of people can check the data from Arduino directly then sending the data to a cloud database increases the number of people who can access it simultaneously.



In the database a fuzzy logic algorithm will use the collected data to generate new data values. After getting new data from Arduino the algorithm will compare its generated data with the one got from Arduino to further improve itself.

Arduino sends data to cloud using a XMPP client

After sending the data Arduino keeps collecting and storing data to its memory to send it again later after a pre set time.



# Used technologies

Provided code

Java

Arduino IDE

Arduino controller