Kangaroo

Wireless system for exchange messages between CNC machine

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The system

The system provides different nodes connected to the machines via serial cable (DB25). They receive programs from the machine and send them to a central node that will save the data. They also receive programs from the master to be able to then send to the machine.

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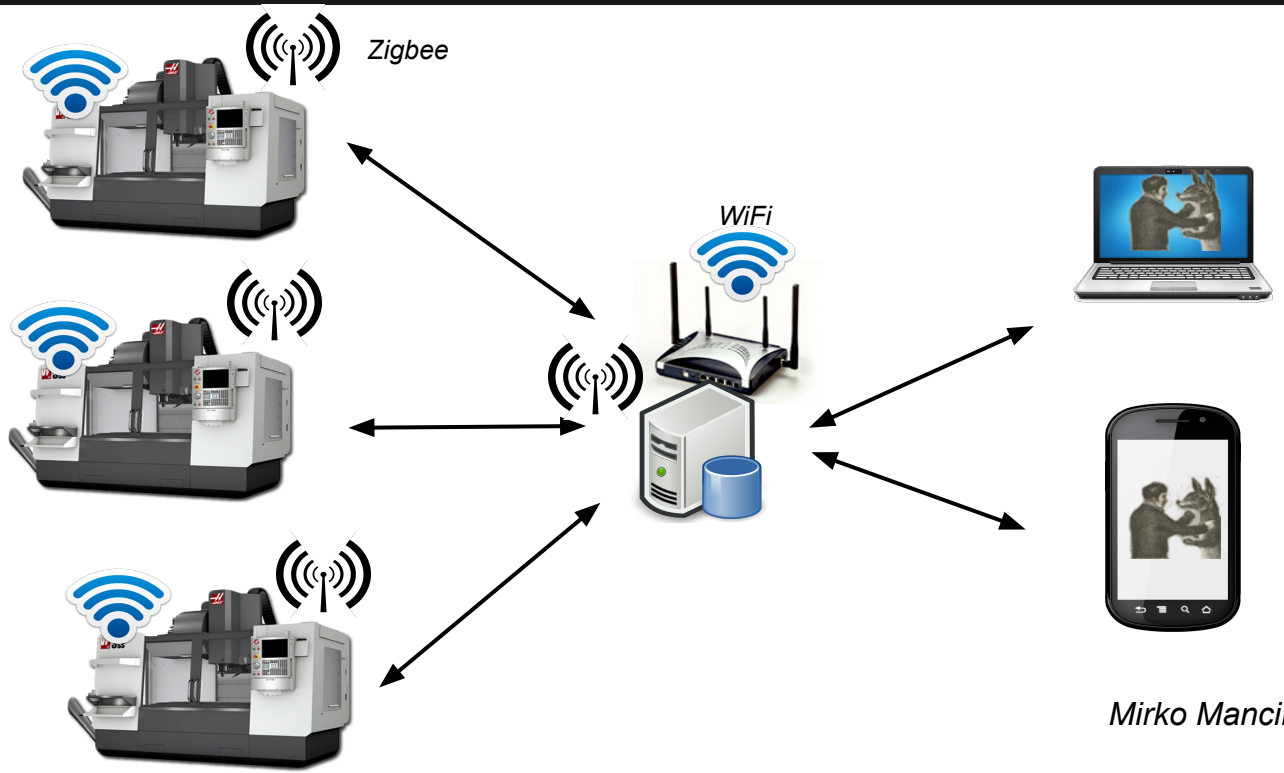
Architecture



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Kangaroo JR

The device is connected to the machine. With it, thanks to the connection via serial cable, you can receive/send programs to/from the machine easily.

Each device has a unique ID given: it allows us to identify a machine within the network. You can also define other parameters to customize the messages exchanged within the network.


```
{
  id: "1",
  name: "CNC1",
  ipAddress:
"192.168.30.12",
  type: "cnc"
}
```


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Daddy Kangaroo

Is it the master and it consists of a board which will manage the network and save the data.

Is joined by a WiFi router which is able to generate an ad-hoc subnetwork for different Kangaroo JR.

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Daddy Kangaroo

It offers different API for communication between the client and the kangaroo JR:

- `getCNCList(); //returns the list of networked machines`
- `setNewCNC(); //setup a new machine in the network`
- `sendFile(); //send the file from the client machines`
- `uploadFile(); //get the file from the machines`
- `...`

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JCook

JCook is the client that allows you to view the data on the network master.

There are two versions of it to enable a complete data management:

- JCook Desktop
- JCook Mobile

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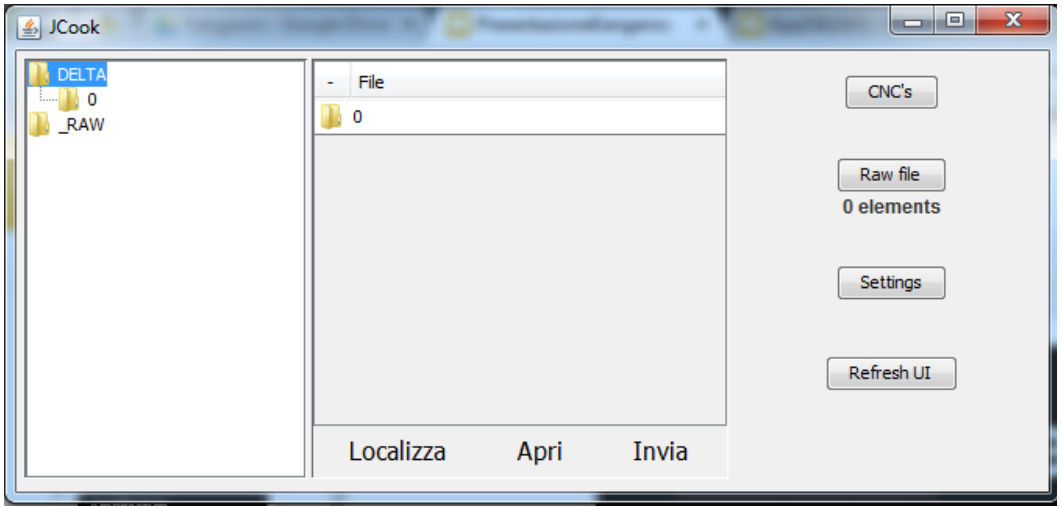
JCook Desktop

The desktop client is a tool easy to use and allows you to display the data on the master Explorer-like window.

You can set up to 248 different machines in WiFi and up to 60,000 devices in ZigBee.



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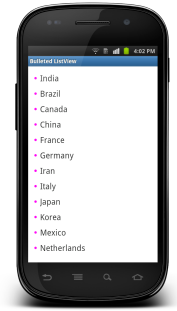
JCook Mobile

With the application you can download directly from the machine the programs you want. Through a listview will be shown and saved programs with a single button you can send the data to the machine.



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