

PROJECT S DESCRIPTION & DEVELOPMENT

Written by proyectoeuropagrupo2

Wednesday, 11 December 2013 08:56 - Last Updated Tuesday, 25 February 2014 13:28

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</td> </tr> </table> <div> <p> <u>(17-10-13)</u></p> <p>
<u>Meeting at SDIG classroom:</u></p> <p> - The teacher's team will
transmit us the principal idea. The idea is to build a microbot which does a particular action. The
microbot will be built with the help of a 3D printer that the Centro Integrado de Formaci
Profesional N1 is going to get in the next days. The final objective the robot will be decided by
our group and the will meet all specifications.</p> <p> - Settle on the objectives and
organize the work's team.</p> <p> - Define the work's teams in a four balanced and
efficient groups.</p> <p> - Debate about the possible formats of the microbot's
construction for each group, by general consensus.</p> <p> - Each group choices his
format.</p> <p> <u>(18-10-13)</u></p> <p>
<u>Meeting at SMEL classroom:</u></p> <p> - Each group will must
determine his project. In addition, the group will have to define the action that the microbot will
be going to do and how will be going to do it (Software to use).</p> <p> - Meeting of each
group to make a decision about it.</p> <p> - After that, our group decided that the microbot
was going to have the following characteristics:</p> <p> -
Construction's format: Four wheels cart.</p> <p> - Action to
perform: Fire extinguisher.</p> <p> - Software to program:
Arduino</p> <p> - The microbot's choice and the software to use, will be done with the
help of the large documentation that the teachers have provided us.</p> <p> - In our case,
we have to decide a format that brings us the possibility to put an extinguisher in the
microbot's shell.</p> <p> <u>(30-10-13)</u></p> <p>
<u>Meeting at SMEL classroom:</u></p> <p> After the first week that
be used to make decisions and distribute tasks, our work's team have organized in
this way:</p> <p> <u>Guillermo Pe:</u></p> <p> In charge of
the blog's creation and
broadcasting (Blogger) where he will explain all
the information about the project's development. In addition he will be responsible for add the
difficulties found day by day.</p> <p> <u>Jos Talavera:</u></p> <p>
In charge of the project's description. He has to provide all
the details about the microbot's construction, his programing & the
phasesof the same during all the project's evolution.. </p> <p>
<u>Jes Torre:</u></p> <p> In charge of the project's

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development with the corresponding documentation in the day by day evolution (Calendar). In addition he has to assign the work between the group members.

(12-11-13)

Meeting at SDIG classroom:

Today we have chosen the microbot's model that we are going to build, considering that this one allows us to put the extinguisher on it.

As well, we have concluded that the fire extinction will be inside an enclosed area. So with the help of optical sensors that we will hitch at the microbot's shell, this one always keeps moving inside the enclosed area until it finds the fire and extinctions it...

How we talked about it, the programming will be realized by Arduino. We have a manual of it and with this help we will program the microbot.

(18-11-13)


Meeting at SDIG classroom:

Today we have received the 3D printer at the high school. After the unpacking of it, we have proceeded to his mount with the help of the attached manual. At the end of mount the shell off the printer, we did the wiring connection. When all this process ended, we have to do the printer's calibration. At this step we have decided for a standard calibration. We only had to plug the printer and switch on it to verify his operation.

Here, we have the first problem that we have found in the project's development.

All the problems that we are going to find all along the project will be write up into the problems and solutions section.

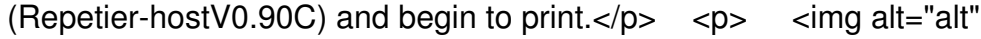
This is the 3D printer that we have received:



(28-11-13)

Meeting at SDIG classroom:

Today we have begun to work in the microbot's pieces. At first, we had to design the pieces of the microbot and all his parts with a program called sketchup. To do this pieces and parts, we count with the help of Manuel Barreneche, who have experience with how to design and he thought us. This is a program where you can generate the necessary code to export it to the printer's program (Repetier-hostV0.90C) and begin to print.



(05-12-13)

Meeting at SDIG classroom:

We begin to print the microbot's pieces with the 3D printer. We firstly print the main pieces of the shell to test if the 3D printer works correctly. When everything was alright, we print the first piece of the microbot. This is a slow process considering that the building of the main piece longs for a 3 hours and the microbot have several pieces. While the pieces are printing we will do some test with the pieces and the components that are assembled on theirs (water tank, servos, Arduino board...)

(15-12-13)

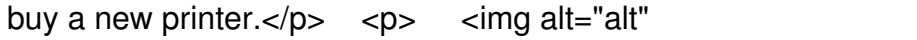
Meeting at SDIG classroom:

We had a problem with the motors, because our distributor couldn't send it. He sent us an e-mail where he said he couldn't get motors to send us, so we have to search another motor which fit into our microbot's structure.

(16-01-14)

Meeting at SDIG classroom:

We had a problem with the 3D printer because it broke down and we had to repair it, apart from that we were limited print time, so we've been forced to buy a new printer.



(05-02-14)

Meeting at

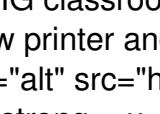
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SDIG classroom:

We had to repeat some microbot's parts in the new printer and we just defined the structure of the microbot.



(10-02-13)

Meeting at SDIG classroom:

We still haven't got the engines but we have almost all of the microbot's built, and we are waiting for the news of the teachers about the pieces we don't have