BLIBOT
EUROBOT 2005

CLAP
&
SLAP

SLAP

CLAP

tactile sensors → main processor 16F877
infrared sensors → main processor 16F877
main processor 16F877 → Pic 16F84
main processor 16F877 → L298
Pic 16F84 → Servomotor
L298 → robot movements — 2 DC motors

tactile sensors → main processor 16F877
infrared sensors → main processor 16F877 → servomotors
main processor 16F877 → Pic 16F84
main processor 16F877 → L298
68HC12 → main processor 16F877
numerical camera CMUCAM → 68HC12
L298 → robot movements — 2 DC motors
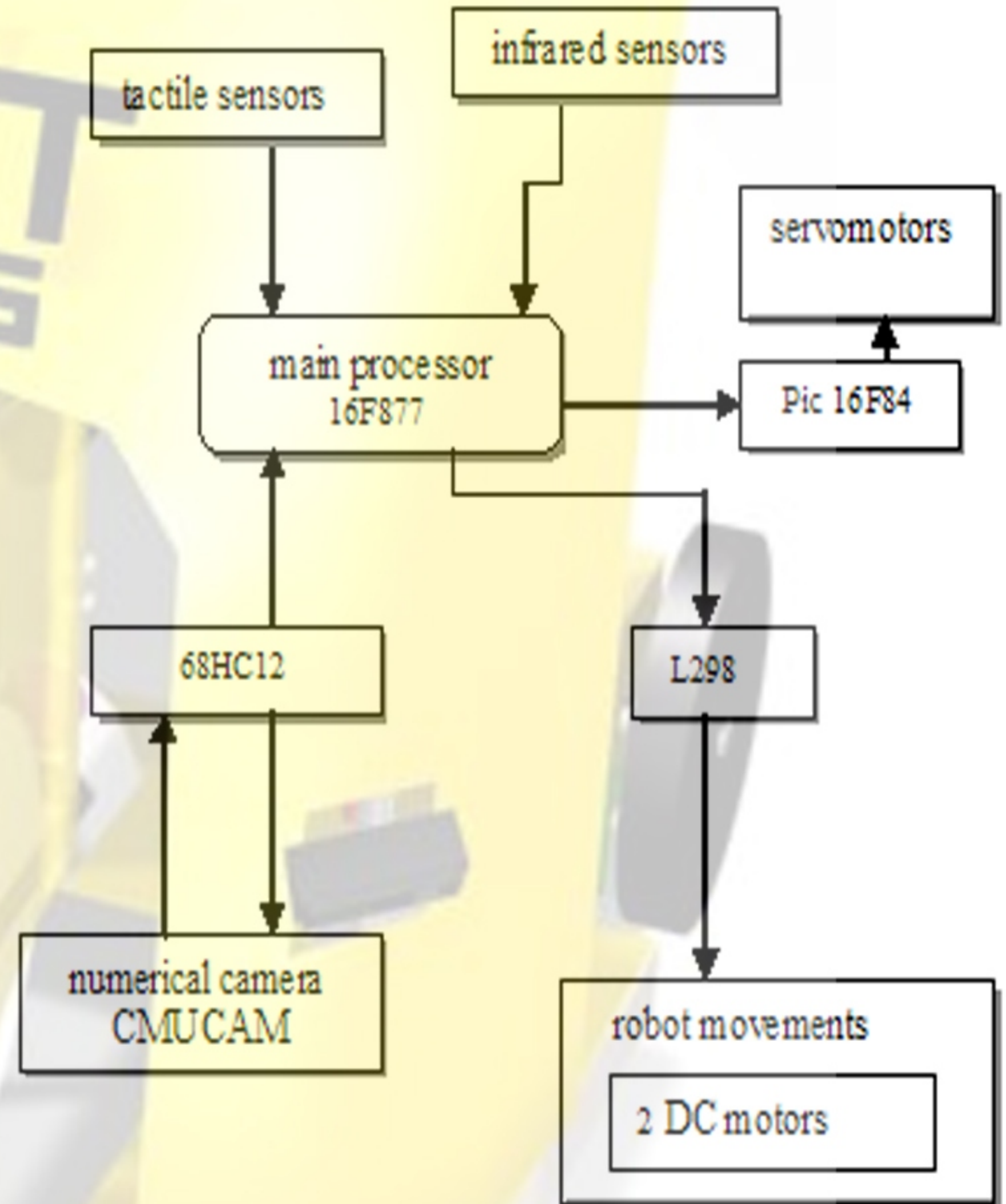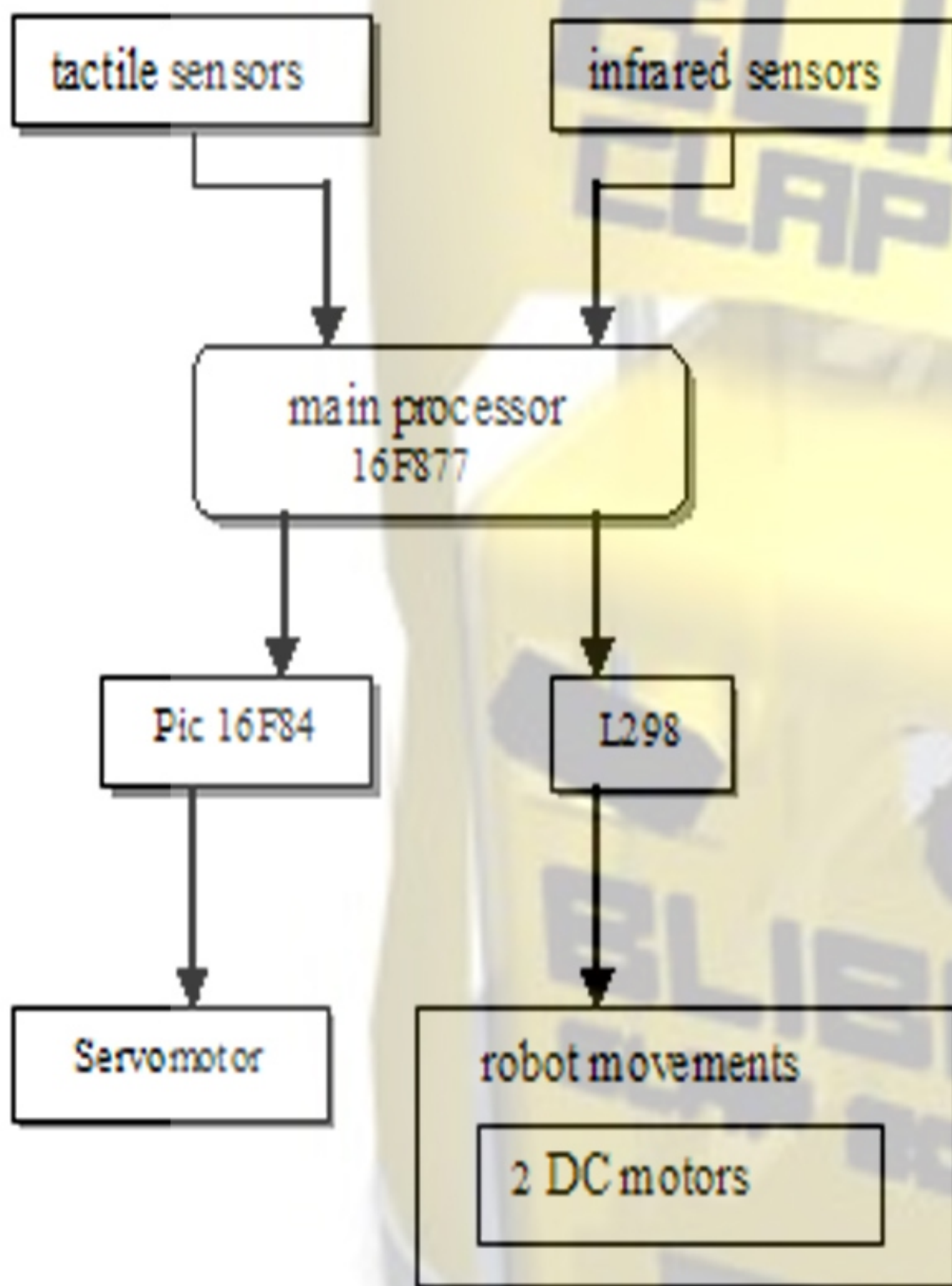
The whole project consists of two robots; one small robot named SLAP is designed so that it will be able to cross the bridge between the two parts of the table. To achieve this it uses infrared and tactile sensors that will inform the main processor which is also in charge of controlling the robot movements through two DC motors. The other important function of the SLAP robot is to find and lay down its own skittles; the detection of these skittles is carried out using infrared sensors.

The other part of the project is another robot namely CLAP. The role of the latter is to try to set up the skittles that were eventually laid down by the opponent robot. Because of the preciseness of the movement the robot has to achieve, a numerical camera controlled through a 68HC12 processor has been used to detect the skittles. Another board based on the PIC16F877 microcontroller will use this information to guide the robot towards the laid down skittle, using a two servomotors gripper, this latter will be picked and raised by a small elevator.

BLIBOT TEAM

www.blibot.tk
BLIBOT2 AT YAHOO.FR
19 to 22 may Yverdon-Les-Bains
(Switzerland)