



A multidisciplinary team of the University of Applied Sciences Offenburg developed the humanoid robot Sweaty and presented it 2014 in Brasil in the robocup soccer competition. The robot's name "Sweaty epitomises the idea of overloading the motors and cooling them with evaporative cooling - similar to cooling effects of perspiration evaporation.

Sweaty was the first robot using this approach. In addition to this novelty other innovative technologies were introduced in the context of the robocup soccer competition, such as innovations in the field of mechanics, kinematics, electronics and software. Not all of these technologies were successful, therefore we decided to rebuild the machine almost from scratch.

Two years later in 2016 we presented a new Sweaty. The actuators were much stronger and the backlash in the joints has been dramatically reduced. The computational power has been substantially increased. Power, speed and the free scope of the joints have been adapted to the necessary figures we calculated for the human gait from motion capture data - though we are not yet taking full advantage of the possibilities of the new machine.

In 2016 we were well prepared and ready to compete with international Robots at the RoboCup in Leipzig and at the end we were finalists.

Now we are preparing for Japan - Nagoya and in July 2017 we compete again with machines from other universities at the international RoboCup competition.

A young group of enthusiastic Professors, Students and faculty members started some years ago to develop an autonomous, humanoid robot that should compete with machines from other universities at the international RoboCup competition.



