The next stage is to connect an existing AC system to the chamber and compare experimental data with simulation results from the code. The cycle is supposed to work alongside a chamber to mimic a vehicle cabin and it should be able to provide the required cooling/heating capacity of the cabin. This experimental step is to be performed by the end of the 32nd week. After proper operation of the cycle and validation of the simulations with the acquired values, the model will be plugged into a more comprehensive simulation code that provides intelligent control of the AC system for gaining thermal comfort and energy efficiency. All experimental and simulation results are to be collected and analyzed by the end the 34th week.