The analysis of the different design of the RF guns were carried out. The longitudinal and transverse beam dynamics were investigated in term of beam quality (emittance, energy spread, beam length etc) and for different electric field distribution for the time range right after beam injection (non-relativistic case). The results will be presented in the papers and reports.

The prototype of the RF gun with standard design was developed. This prototype can allow us to investigate different metallic photocathodes.

The modulator for the RF stand with the klystron to test the RF gun prototype with different metallic photocathodes was developed. It consists of the charging line, the thyratron type key, the source of the charging voltage and the transformer. Now we are waiting for the source of the charging voltage and planning the tests with the klystron. Besides, we developing the waveguide line to connect the klystron with the RF gun.

The stand to create laser with 4th harmonic is under developing. We are choosing the list of the stand elements and waiting the bought devices.

The photocathodes based on the IrCe is developed, but the quantum efficiency is not tested because the laser stand is not ready yet.