MISSION OF LUNA-25, AS THE FIRST STEP OF RUSSIAN ROBOTIC MOON EXPLORATION PROGRAM. I.G. Mitrofanov[1], V.I.Tretyakov[1], L.M. Zelenyi[1] Space Research Institute, Russia, Moscow, Profsouznaya str 84/32, 117997, mitrofanov@np.cosmos.ru

Introduction: The Russian robotic Moon exploration program includes several landing missions of Luna-25, Luna-27, Luna-28 which should be implemented step by step with increasing complexity of the science goals and implemented technologies [1,2].
They aimed to the exploration of mineralogical, chemical, and isotopic compositions of the lunar regolith, as well as the search for volatile compounds.

Mission Luna-25. The launch of Luna-25 is scheduled for October 2021. It will land at 43.5º, -69.5º, the area located north of Boguslawsky crater [3]. This mission is the first step of Russian robotic Moon exploration program.
For the surface operations this lander is equipped with robotic arm that should excavate lunar regolith in multiple locations to the depths 20-30 cm, take and deliver sample of lunar soil (1-2 cm^3) to the laser spectrometer for the elemental and isotopic analysis. The view of the lander is presented in Figure 1.

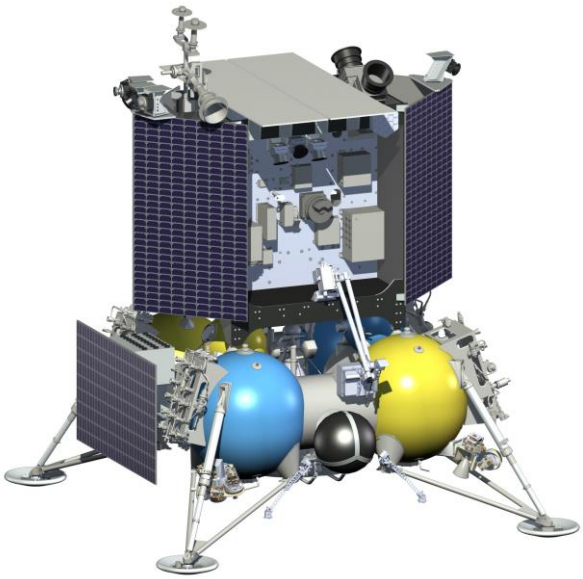

Figure 1. The general view of Luna-25 lander.

Discussion: Scientific program of the mission will be presented, including the list of instruments and their capabilities for studies of polar soil composition and of lunar exosphere at high latitudes. Expected results of the mission will be discussed, as the scientific ground base for future missions of Luna-27 and Luna-28.

References: [1] Mitrofanov I.G. et al. (2020) *LPSC 51*, Abstract #1402. [2] Mitrofanov I.G. et al. (2020) 22nd EGU General Assembly, Abstract #8739. [3] Djachkova M.V. et al. (2017) Solar System Research, 51, 185-195.