NASA is thinking about going back to Pluto, this time to stay for a while.

The space agency has funded the Southwest Research Institute (SwRI) to conduct a wide-ranging study into a possible Pluto orbiter mission. The study will lay out design and instrument requirements and investigate the feasibility and costs of the potential project, SwRI representatives said.

SwRI leads NASA's New Horizons mission, which zoomed past Pluto in July 2015, snapping the first-ever up-close photos of the dwarf planet. The historic flyby revealed Pluto to be a surprisingly diverse and complex world, with 2-mile-high (3.2 kilometers) mountains of water ice and vast plains of nitrogen ice, among other features.

On Jan. 1 of this year, New Horizons conducted a second flyby, this time of the small Kuiper Belt object (KBO) 2014 MU69, which is informally known as Ultima Thule. (The Kuiper Belt is the ring of frigid bodies beyond Neptune's orbit, and Pluto is the belt's most famous resident.) "We're excited to have this opportunity to inform the decadal survey deliberations with this study," study team leader Carly Howett of SwRI said in a statement. "Our mission concept is to send a single spacecraft to orbit Pluto for two Earth years before breaking away to visit at least one KBO and one other KBO dwarf planet."

The team has been working on its orbiter concept for a while.

"In an SwRI-funded study that preceded this new NASA-funded study, we developed a Pluto system orbital tour, showing the mission was possible with planned-capability launch vehicles and existing electric propulsion systems," SwRI's Alan Stern, principal investigator of the New Horizons mission and the earlier SwRI-funded study, said in the same statement.

"We also showed it is possible to use gravity assists from Pluto's largest moon, Charon, to escape Pluto orbit and to go back into the Kuiper Belt for the exploration of more KBOs like MU69 and at least one more dwarf planet for comparison to Pluto," Stern added.

The newly announced NASA funding doesn't mean a Pluto orbiter will definitely be on the space agency's docket, however. NASA has sponsored nine other mission studies as well, to get ready for the next Planetary Science Decadal Survey.

The decadal survey is performed every 10 years by the U.S. National Research Council to help set NASA's robotic exploration priorities. Work on the next survey is set to begin in 2020. (The most recent Planetary Science Decadal Survey covers the years 2013 to 2022.)

New Horizons is in good health and has enough fuel to fly by yet another KBO, if NASA approves another mission extension, Stern has said. (The Ultima Thule flyby was the centerpiece of the current extended mission.)