University of Texas Arlington graduate student Hung Cao kisses his son on the cheek shortly after he was born. He said this is where he got the idea to develop a sensor to help battle Sudden Infant Death Syndrome. (Credit: UTA)

ARLINGTON (CBSDFW.COM) – Gone are the days of audio and video-based baby monitors — if University of Texas at Arlington researchers have their way.

They’ve secured a patent for a wireless sensor that detects carbon dioxide exhaled by sleeping babies. Parents can buy monitors that detect movement, but this device will directly tell the parent if their child stops breathing.

“If anything happens, for instance the baby stops breathing, the carbon dioxide concentration will vary, then the system will issue an alert through the wireless system to warn the parents,” said J.C. Chiao, an electrical engineering professor at UTA.

The sensors can be attached to a baby’s crib or car seat. Hung Cao, a doctorate student, came up with the idea after his son was born in 2006.
He said he remembers watching his baby shortly after he was born in the hospital.

"I didn’t see any equipment to monitor the baby, I said, “Why it’s like this? What happens if something suddenly happens with the baby and no one knows?,”” Cao said.

Christina Lara is a first-time mom. When her daughter Annabelle Grace was born, the family hurriedly invested in a pair of baby monitors.

“We got one that goes under the mattress that senses movement and we also got one that clips to her diaper that sense movement,” Lara said.

The Keller mother still wakes up four times a night to check on her baby girl — the UTA sensors, she said, would help ease her concern.

“If I don’t hear her, I go and check on her and feel her and maybe poke her,” Lara said. “I think something like (the sensor) would be amazing; just that extra peace of mind to help you get rest would be worth it.”

To create the sensor, Chiao and Cao teamed up. They each said they believe their product can help lower the rate of Sudden Infant Death Syndrome, or SIDS. According to the U.S. National Library of Medicine, SIDS happens unexpectedly mostly among children between two and four months old.

“It remains a significant cause of death in infants under one year old,” the government website says.

“If we can save just one baby and that baby can become the next Einstein or President of the United States, then we have done our jobs,” Chiao said.

The two researchers hope to have the device on the market in five years. It would cost about $100.