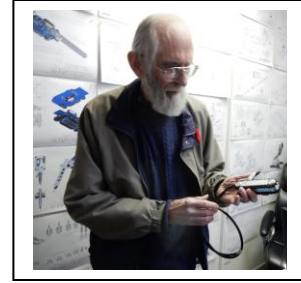


A TRIBUTE TO AL ROBINSON who passed away on February 7, 2026.

by Chris Roper with Vickie Jensen, Gino Gemma, Eric Jackson and Scott Robinson



EARLY YEARS: As a six-year-old, Al Robinson built model airplanes and dreamed of flying De Havilland Vampire jets. But poor eyesight derailed that plan, so his mother and Al decided that he should become an aeronautical engineer. Al certainly had the brains to do that, but by grade 11, he had other passions. “I dropped out of school so I could build hot rods and custom cars and chase girls.”

Airplanes remained a significant love all of Al’s life, but as he says, “I ended up going the other way—one and a half thousand feet *down*, underwater.” Chris Roper adds that Al was as interested in the stars and cosmos as he was in thermal vents and all things deep sea. “He spent hours hand polishing a custom lens he created for this home-built telescope.”

Chris recalls that in 1986 Al designed a paper airplane folding robotic display for Expo 86 in Vancouver. Over the 6 months that Expo ran, that paper airplane building robot folded and launched many 100,000’s of them! That design was then displayed at the Smithsonian Air and Space Museum, a feat Al said was his only claim to air fame!

Al Robinson was not a professionally trained engineer, but he became one, getting his education in the real world, starting with Hyco International building the *Pisces* manned submersibles. Al recalled, “I was a truck driver, a carpenter and an auto-body worker when I arrived there. I had grown up in a fairly normal world, but working for those guys was just mind-blowing. I’d never seen anything like this, but I was determined to be a part of it. I had no knowledge of underwater stuff, but HYCO hired me as an assistant. Then they fired my boss and asked me to take over. That’s how I became chief hydraulics technician. I just persevered and that’s how I learned.”

Gino Gemma was already working for HYCO when Al Robinson showed up looking for a job. He recalls some great details of that pivotal interview:

Mack Thomson, Al Trice and Don Sorte were the originals who started HYCO. I knew Mack but didn’t meet Al Trice until they moved to Riverside Drive in North Vancouver. That’s when I joined the crew along with Rolf Glauser (now with Southwest Research), Walter Feug (retired to Switzerland) and George Hazelton (the best fiberglass man in all of B.C.) and Mike McDonald.

One day there was about six of us huddled around a hydraulic test bench where we had a Vickers manifold hooked up. It wasn't working. There was a knock on the door that I answered and there was this thin rake of a man with fierce eyes and a long beard. It was Al Robinson looking for a job.

I asked him what he could do. He said, "Well, I drive a truck." I told him, "We don't need a truck driver. What else do you do?" "Well, I know a little bit about hydraulics." So, I invited him to follow me to the test bench where all these guys were standing around.

Al looked at it and said, "Yeah, I recognize that manifold." "Well, we got a problem; we can't get it to work," I explained. He stood there, then picked it up in his hands, looked at it and said, "If you change this over to there and that to there, and move this, it will work." Everybody else was flabbergasted. But somebody picked up a wrench and did what Al had said, then plugged the manifold back in, and it worked! I looked at Al and said, "When can you start?"

From then on, he was our hydraulics guy, and he turned out to be the most incredibly talented person. Jack Russell who owned Progressive Hydraulics was impressed with Al Robinson right from the beginning.

I remember one other incident that expressed how good Al was and how much he knew. It happened when two guys from General Dynamics in the sub business in California knocked on the door. I let them in and asked what they wanted. They said they wanted to meet Al Robinson. "We want to get him to come work for us."

I got Al and then overheard them offer Al a job. He said, "I don't think I'm interested in working for anyone else." They went on to offer him an incredible salary, including a stipend to move his family down to California. But he simply repeated, "I'm not interested. I think I'm happy to stay right here." And then he walked away.

I thought to myself, "Well, we got a winner here."

Terry Knight and Al Robinson had their small shop facilities side by side at HYCO. Terry recalls, "He was the hydraulics wizard and I was the sparky. As a result, we spent a lot of time working together, transposing each other's drawings so I could learn about hydraulics and he picked up on electronics and electrical. Al was never a guy to go out and make money, but he *loved* technology, and he became an extremely talented mechanical designer."

Even outside of HYCO, Gino Gemma and Al Robinson were very close. "Our daughters became friends and we shared family dinners. I liked Al Robinson very, very much, as well as his family. He was a good friend."

NEXT STOP: ISE and RSI: After HYCO closed in 1979, Al moved to International Submarine Engineering and designed a manipulator for the Woods Hole submersible *Alvin*. Eric Jackson of Cellula Robotics recalls, "Al was a great mentor to me also when I first started at ISE. I remember coming to him with my questions like, 'Al, I busted a screw--the head broke off when I was trying to undo it. Can you show me how to get it out?' and he'd help me figure out things like that."

Jim McFarlane sent Al Robinson to Robotic Systems International, a company that was affiliated with ISE at that time. (RSI later became independent in 1983.) Working for Jack Wilson, head of RSI, Al handled design, Ken Soles was the main mechanical guy, and Chris Roper looked after sales and business development. Norm Keevil came onboard as a mechanical engineer and David Lokhorst ran RSI's special project division for several years.

Al's job was to re-design the rate-controlled 7-function subsea manipulator and turn it into a spatial correspondent master/slave manipulator. No easy task but one that Al handled successfully. The result was that the 7FR56 (7-function rate 56-inch reach) became the 7FSC56 (7-function spatially-correspondent 56-inch reach) subsea manipulator. Hundreds of them were produced.

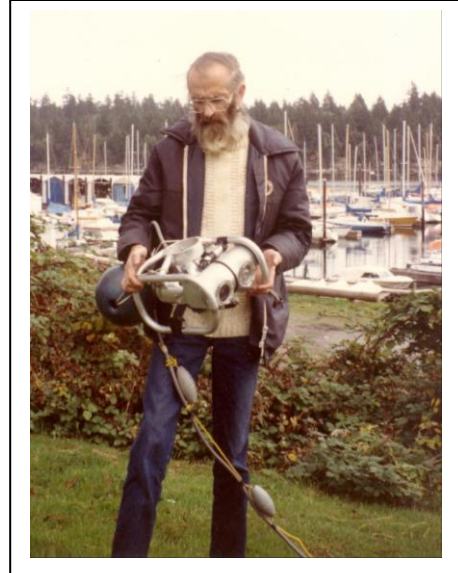
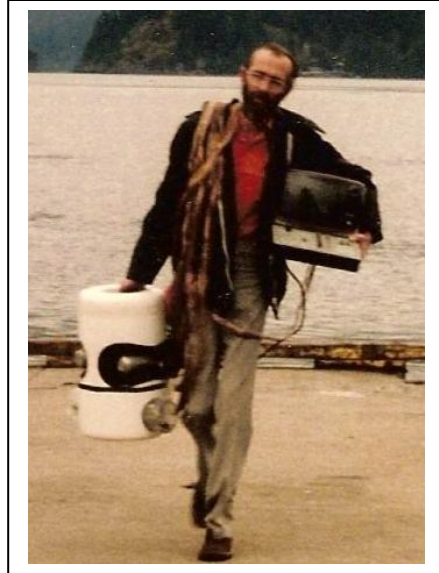
The next RSI manipulator Al tackled was the Kodiak that Al designed and built over a 6-month period. In 1986, the Challenger Space Shuttle exploded shortly after takeoff, taking the lives of all seven astronauts. Given a "right now" deadline, Chris delivered RSI's Kodiak 7-function and 5-function manipulators to the Gulf of Mexico where EastPort International used them to recover components from the Challenger Space Shuttle wreck. Al noted, "Chris Roper was commended for assisting intern ROV pilots with the operation of the manipulators and the subsequent recovery of one of the two hefty solid rocket boosters and associated hardware."

It turned out that Al knew a fair bit about manipulators. He once admitted to Chris that Frank Busby told John Seaward Johnson and Edwin Link that they needed to hire Al Robinson. That's how Al ended up working at Harbor Branch, designing and building the manipulators for the Johnson *Sealink* manned submersible.

Al had some fun "flights of fancy" jobs, too. One of them was designing a total of 19 mechanical spiders for the Tom Selleck sci-fi action movie "Runaway". Gino Gemma recalls, "Tom Selleck was a nice guy and after the movie wrapped up, he gave everyone a Rolex watch."

Over the years, Al Robinson and Terry Knight kept in touch, with regular visits after Terry moved to Nanaimo. Al really liked being on Vancouver Island and was determined to find a way to stay. In his spare time, Al had been designing a new low cost ROV that he and Terry played with, burning out a number of thruster motors. Chris Roper recalls seeing the prototype ROV in the mid-1980s. "I asked him what it would be called, and he told me *SEAMOR*, named after Mt. Seymour in BC. Working at RSI allowed Al the spare time and money to finalize the *SEAMOR*

design. It was Al's first low-cost ROV, selling for under \$10,000. Al and Terry were both convinced it was going to create a whole new market for the "recreational ROV".



INUKTUN: RSI contracted with Al for the first ten *SEAMORs* built by Inuktun Services, the brand-new Nanaimo-based company that Terry and Al put together. That contract was the start of their new business. Chris Roper's job was to sell them, and he did just that to the Port of Vancouver. He then left RSI and joined Al and Terry at Inuktun.

Chris recalls the day he phoned Al to say he had just sold a *SEAMOR* ROV to Philadelphia Electric and the nuclear power plant in Peach Bottom, Pennsylvania. Al's immediate reaction was, "Oh, no, no, no. You can't do that. It's not made out of the right materials for that kind of toxic environment. And I don't know enough about nuclear stuff to build one out of the right material." But Chris explained, "They recognize that, but they're willing to buy *SEAMOR* and use it as much as they can because they like it and it's affordable." Soon after, Terry and Al flew to visit another US nuclear plant to see what the nuclear world was about. "That trip got us into the nuclear business and we did a lot of work in that area."

Chris adds, "When I came back from a road trip to tell Al we were going to be selling a bunch of *SEAMOR* ROVs to the nuclear industry, his first question was 'Why would we want to do that?' I answered, 'Because they have money'. Over the next 10 years, we delivered those ROVs to both commercial and government nuclear facilities, including a stainless-steel version that was developed for the Japanese nuclear market."

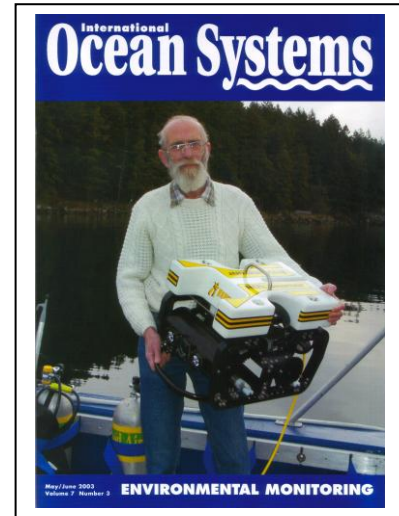
Scott Robinson with first stainless steel *SEAMOR*



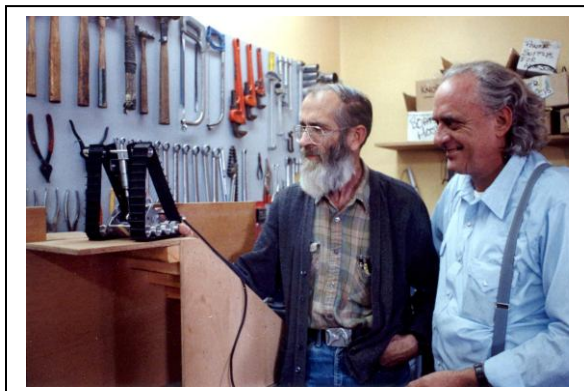
Al sweated the details, with some headaches worse than others, Chris recalls. “Our client in Japan insisted that the vehicle be built in stainless steel which caused Al number of sleepless nights. They were adamant that the ROV had to be the exact dimensions that we had originally quoted. As a result, one of Al’s biggest challenges was to bend the stainless-steel frame as tight as those dimensions required. Al finally achieved these tight bends by filling the tube with sand which prevented the tube from wrinkling.

“When I delivered that ROV to our client in Japan, I asked them why they would not grant a height increase of 3/4 of an inch which would have made the tube-bending process much easier. The reason they would not deviate from the original dimensions was because they had already built the ROV storage container and it did not allow for any dimensional changes of the ROV. Al was red-faced mad that it was a storage box that had kept him awake so many nights.”

That’s how Al’s dream of *SEAMOR* as a low-cost recreational ROV was hijacked by the nuclear market; it moved from a \$10,000 ROV to a \$100,000 one. Today the *SEAMOR* ROV is alive and well, successfully produced and marketed by SEAMOR Marine in Nanaimo.



Eventually, Al went back to the drawing board to take a second run at developing a recreational ROV that he called *Scallop*. But it was Ontario Hydro that really made Al turn *Scallop* into a fully functional low-cost, very small ROV. It made its debut at the Underwater Intervention conference in Vancouver back in the ‘80s. Scott Bentley saw the *Scallop* ROV, bought the design rights and turned it into *VideoRay*. As of 2024, over 3750 *VideoRays* have been sold. Chris Roper notes, “Both of these world class ROV came out of Al incredible mind.”



One day a local pipe inspection company brought their pipe crawler to the Inuktun shop to see if Al could beef it up and keep it from breaking down. Al fixed it, then said he could build a whole lot better pipe crawler—and did. That was Inuktun’s *Minitrac*. Once that product was mature, Al designed the *MicroTrac*. Then came the PTZ90 and PTZ45 and Crystalcam as onboard cameras. These small diameter pipe crawlers could deliver cameras and sensors for

traveling into and inspecting areas where a person couldn’t go. Over the years, Al and Terry

Knight produced hundreds of various pipe-crawler systems. Many of these new hardware concepts were first sketched out on a napkin from the grilled cheese sandwich that was Al's favourite lunch order.

RETIREMENT: Al retired in 2017 at the age of 77. His son Scott took over Al's position as mechanical designer and Al's two grandsons Dean and Kevin also still work there. In 2019 Edify Robotics purchased Inuktun Services.



Al always liked fast cars and early on was a serious rally driver with his first wife Melinda navigating. Gino Gemma recalls HYCO days when he was racing Formula "V" race cars, and Al became his pit crew. "Al loved coming out to the track. Al owned a MGTC and his wife owned a real collector's Porsche at the time. I didn't last too long at that kind of racing. It was just too expensive, so I gave it up." But Al's interest in unique cars continued. Not surprisingly, when Al sold Inuktun, the first

thing he did was buy a custom sports car—a Caterham Super 7! In his later years, Al also remarried a lovely lady Rev. Eunice Galvin.

Al Robinson passed away on February 7, 2026. Chris adds, "Al was the kindest and gentlest man I have ever known, soft spoken and almost always right. He was my best friend and he will be missed by all the folks that he touched in his lifetime."

Al's son Scott sent this closing update: "I have recently retired from dad's company which was Inuktun Services and is now part of Eddyfi Technologies. The latter purchased Inuktun a couple years ago. Inuktun has gone from just under 100 employees to part of a larger company with around 1000 employees. They have offices all over the world and sell to many different countries. Dad and Terry Knight, his business co-founder, certainly never dreamed that what they started would ever have grown to such a size."

Scott also sent along this photo of the entire Inuktun crew back in 1991 or so. It hung in the office for the last decade of his time at Inuktun.

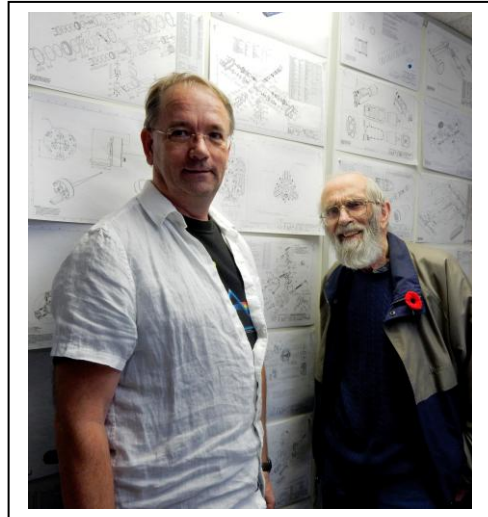


Scott adds with a laugh, "I always told anyone who asked that Terry did the talking, Chris did the selling, Dad did the designing, and I did all the work!!!"

Both of Scott's sons Dean & Kevin continue to work at Eddyfi Technologies. "They're extending the Robinson legacy. Dad was very proud of them both being there and always smiled when talking about the work that they were doing."

"This will be the beginning of a new chapter for all of us, with Dad not being around, and it will take some time for us to adapt to not being able to approach him with thoughts or questions because he held so much knowledge that he would always guide us to a solution. We must try to take the information that we have gathered from him and forge ahead the way we know he would have wanted us to.

"I have received best wishes and condolences from many people that worked with or knew him, and it is a comfort to know he was so respected in his industry the way he was.



"I look forward to continue to read your emails as they come in and I wish you well."

Sincerely,
Scott Robinson