Subject: Re: linn, Direct Drive, homebuilds
Posted by Wayne Parham on Tue, 27 Apr 2004 03:44:20 GMT
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For speed control on a motor with a flywheel, you're right - It isn't really a complicated system but you can use some form of feedback to stabilize motor control. This feedback can be analog or digital, and of course, can be in one of many different forms of different qualities. But you can also run the motor open loop, which just means it spins as fast as the torque and load balance out to be. The motor can be AC, DC or stepper. For that matter, I suppose the motor could be something else altogether. Steam powered turntables, anyone?About the Wankel engine, actually, it has a lot of history prior to Mazda picking it up. But after they started working on it, their first production model was the R100, followed by the RX-2, their first model to hit the USA. I had three of those. Mazda then made an RX-3, which was sporty but had leaf springs in back and an RX-4 that was larger and had (a whopping) 80 cubic inch 13B engine as opposed to the 70 cubic inch 12A in the RX-2 and RX-3. Then, in the mid-late 70's, Mazda brought out the RX-7, first with a 12A and then the early eighties version had a 13B. They ran some of 'em with turbochargers. This thing was quite a performer, especially for the cost.I had a stock RX-2 in the late seventies and later made a hotrod RX-2 in the early eighties. I used a Holley 450 CFM caburetor, headers and porting. The RX-2 was prone to understeer, so you machined shock mount plates to pull the front shock towers back for positive caster and you want to give the front wheels some negative camber too. Used a GM pressure plate and clutch to handle the power. Left the stock 3.90 rear-end gears and 4-speed transmission; They were pretty tough units and the gears were right. Old seventies Mazda trucks also had Wankels and they had 4.11 gears, so you could swap them for a little more gear if you wanted them. But with 7000 peak power and 3.90 gears, your top end was around 140MPH and that was just about right for a car shaped like the RX-2.I loved that car. It's kinda funny, 'cause back then everyone was into muscle cars. They were starting to fade because gas had become expensive but the rice-rocket craze was nowhere in sight. If you thought of Japanese cars, you thought of slow and cheap. Honda's were for gas mileage and viewed as being like Volkswagen bugs, but much less popular. No one would have dreamed that Honda would be cool, and certainly you didn't think of them as winning races with either cars or bikes. Honestly, these Japanese companies were doing some excellent engineering work and making real advances. But we didn't know that back then, and Japanese wasn't cool. So my little RX-2 was a definite sleeper.Now it's just the opposite. Everyone is running a rice-rocket these days, and an RX-2 would be the coolest thing on the road. Car enthusiasts and weekend-warriors would see them as old-school with modern style. And no matter what other folks thought of it, the car is just plain fun to drive, and interesting to see. Too bad they're so hard to find these days. In the 70's and 80's, they were everywhere and could be purchased used, reasonably priced and in good shape. Back then, you could find them everywhere, but they seemed to vanish in 1990 or so. It's like a Mazda car "rapture." Look around in 1985 and you'd see a bunch of 'em, look again in 1995 and they're nowhere to be seen. Poof - They've gone.Speaking of that, and while I'm rambling, here's some more trivial trivia. Ahura-Mazda is the name of God in the Zoroastrian religion, which most scholars believe was the faith of the three-wise men who brought gold, frankincense and myrrh to the baby Jesus. So quite literally, the Japanese named their company "God," using the old Persian name from the Zoroastrians. There are still approximately 100,000 practicing Zoroastrians, sometimes called Arians, Parsis or Avestans, and they live mostly in Bombay. Nice folks, their religion is monotheistic and very much like the Jewish/Christian/Moslem family of faiths. Interestingly

enough, it started nearby, in Iraq. Seems like all the religious stuff happens there. Maybe it's something in the water?Did I get way off-topic or what? Moderator!!!Anyway, back to the disappearing RX-2's which I suppose are also off-topic, but not quite as far. I'd love to have one again, 'cause they're cool little cars and they would be really interesting and popular today. But I guess I'm a contrarian because I'm now running the big block V8's that were so popular a few decades back.Maybe we can use a Wankel powered turntable?