I. D.

"Welcome to I. D. Architecture, Inc." said the pert brunette, "what can I do for you?"

"I'm here for my appointment with the Chief Designer," the man said, soulfully.

"Oh, you must be Mr. Sands. Just walk this way," she wiggled, "and make yourself comfortable on my couch. The Chief will be here as soon as I can invoke him, she said reverentially.

"Pleased to meet you, Mr. Sands," said the formidably large Chief.

"Oh, you can call me 'Red', Mr. ..."

"My names are rather difficult to pronounce. Just call me 'YY'." (The brass nameplate simply read 'Y Y' with no periods.) "Now, what can we do for you, Red?"

"Well, I just need something to keep all of my stuff in. It has to be mobile, to take me around, and maybe explore the world outside. And it must be functional, to let me do whatever I have to do."

"Anything else?"

"Well, I'd like it to look nice, to make me feel like a **somebody**. Right now, I'm kind of a nobody."

"Quality?"

"Of course, I want the best, but I do have a limited budget. That's it, mostly."

"Got it," muttered YY, as he scratched some notes on a tablet:

I.	**Enclose all components.**	*(Containment structure?)*
II.	**Fully mobile.**	*(Propulsion? Fuel? Exhaust?)*
III.	**Perform labor as needed.**	*(Robotics? End-effectors? Servo-motors? Computer(s)?)*
IV.	**Cheap !!**	*(Reduce costs? Multipurpose?)*

"Sounds like a reasonable set of goals. Let's see what we can come up with, to implement them."

"Oh, and reliability is very important."

"Of course! We'll create most of the components in pairs. Then if one breaks down, you use the backup. It's part of our *'Two-by-Two*' policy."

"Uh. How long will it take?", Red inquired, with trepidation.

"Well, if you can give me the general specifications by Monday, we can complete the process in a matter of days"

"Great. I can submit a general outline first thing tomorrow morning, but there remain a few issues to work out. I might have to add a few minor mods and limitations. I'll get then to you via overnight."

Scowling a bit, Y Y demanded, "How many adaptations and constraints did you have in mind?"

"No more than five or six; very minor; mostly restrictions. Is that OK?"

V.	**. . . Half a dozen more rules.**	*(TBD)* **. . . .**
X.	**Delivery:**	*(Prototype by end of week.)*

"Yes, that'll be perfectly fine," Y Y grinned, "We'll schedule a progress meeting every day, say at sunset. By the end of the week we can complete the design and show you a working prototype, along with sketches for different models and variations. Will that be that acceptable?"

"Wow! That's mighty fast work."

"We pride ourselves in moving along at light-speed," he smiled magnanimously. "Just sign here, and we'll start off with a bang."

His modifications had been delivered a bit late, that morning, so Red was both pleased and surprised to see a preliminary but comprehensive architectural drawing presented to him at the very first review. There were solid-looking struts to providing good support for the components, with different kinds of tubes and connectors between some of them. Examining the diagram, he saw notations such as power supply, fuel intake, exhaust duct, propulsion system, evaporators,

several servomotors, and even a central control computer enclosed in a protective case, as well as cameras, sound detectors, alarms, etc. He asked, "what is that red line surrounding the whole thing?"

"Oh, that's a membrane to hold everything in and to protect it from the rain. It's a new flexible material, somewhat stretchable; very tough but lightweight, yet it is actually the biggest component in the entire system!"

"With a couple hundred struts inside, and all those pipes and servomotors, I had expected some thick outer walls to hold in all that stuff, but this outer surface seems rather skinny. What if it rips or tears? Won't everything leak out?"

"No, that's the beauty part! We are working on making the material self-healing, especially when the insides are exposed to air. My chemists tell me that will be accomplished in a few more days."

"Well, what if it tears before then?"

"Oh, don't worry about that. We have plenty of Crazy Glue on hand, here."

At the next meeting, Red was glad to see that four wheels had been added at the bottom.

"That'll get me around, when I need to move, and those propulsion motors look pretty powerful. I see the fuel intake port at the top, but where is the port for exhaust gasses?"

"Oh, we use the same tubes for both. Cuts down on material costs"

"Huh, won't that little shortcut cause other problems, sharing the same tubes for liquid and gas?" Red asked, as he stifled a cough.

"We added some flaps and valves so that gasses move in and out only when no fuel is coming in."

"Thru the same tubes?"

"We have a lot of experience doubling up on things. It compliments our '*Two By Two*' policy."

"How about maintenance? Instructions? What if a part needs to be repaired or replaced?"

"Ah, we make tiny copies of the the entire design, twisted up very small, and stored in every nook and cranny."

"Say, don't all those little motors run by oxidizing the fuel? Where does the oxygen come in? And how does the exhaust get out."

"Thru the multipurpose intake/outlet tubes. We also cut costs by using the same gas bags for both intake and exhaust."

"More valves for all that, I suppose?"

"Yup. Saves a lot, that way."

"Sounds complicated. Will it be reliable?"

"We'll collect the gasses in five gas bags: two on the left side and three on the right, with the fuel tank in the middle."

"Remember, we agreed to use sound for external communication. How is the sound produced?"

"There's an air modulator, right there," the Chief pointed out, proudly.

"OK, but how does the sound get out? Thru the same tubes?"

"Of course! We just had to adapt the tubes a bit, to fit the modulator inside."

"More valves, I guess."

"Uh huh."

"Hope it doesn't choke up," Red worried, swallowing a gulp.

Red remained skeptical, so he asked, "How do these things (fuel, oxygen, exhaust) move back and forth between the motors and those gas bags and fuel tanks? You doubled up there, too."

"Yup, you got it. We have a single network of pipes carrying liquid all over the place! By the way, the fuel gets to the motor, that way, too! Ain't it great what our designers come up with? And we save costs by using one dual-pump for everything."

"But, but, but, ... oxygen and CO2 are gasses! How can you send those different gasses back and forth with liquid in the pipes?"

"Aha. That's the brilliance of our scheme. My assistant came up with an iron carrier that can transport either one or the other. And it carries four of them at a time!"

"So, both gasses go in and out thru the same five air bags."

"You got it, Red!"

"Hmmm," Red wondered, "how can you tell which gas is which?"

"Aha, that's the beauty part! We've color-coded all the pipes. For instance, the fluid turns red when it's bringing in the oxygen and blue when it's carrying out the CO2."

"What about other wastes, liquid and solid? Do you use the same outlets and lines for both?"

"Oh, no, we wouldn't do that! See this little line marked #1, and that wider one marked #2."

At this point, Red remarked, "The whole thing reminds me of a Rube Goldberg machine".

Y Y seemed a bit perturbed at first, but said nothing. Red later found out that this was, in fact, the name of the Assistant Project Manager!

"See you tomorrow evening", she perked, as he waved goodbye.

Noticing her staring at the door, one of the assistants remarked, "What a tough customer!"

"He's got dreams and plans," she said dreamily. "He'll go places. And he makes me laugh."

"Aw, he's just ribbing you!"

"We had a number of problems adding those manipulators you asked for."

"Manipulators?"

"Yeah. You said you wanted to be able to pick up things and put them down, move them around, maybe even change some of them: manipulation is what we call it, around here."

"OK, so what was the problem?"

"We had to modify the front wheels to grab things, and they were too far apart for some of the tasks you said you needed to do. So we split each of the front wheels into two parts: a thick rod and a flat plate, like a shovel with a lid on top."

"So, what was the problem with that?"

"Well, the front wheels could no longer roll, and they were also too low to the ground, so we tilted the whole assembly UP, like this, with the front manipulators more handy when they stick out near the top."

"Near the top? Oh, I see. Now, it stands erect with the rear wheels at the bottom and the whatchamacallits near the top."

"Exactly! This also puts the cameras closer to the manipulators, for fine work. Another advantage is that the cameras can observe over a much greater distance, since they are higher up."

After some thought, Red pointed out that "all locomotion is done from the rear, now. Like doing 'wheelies'. Rearing up on two, instead of being surefooted on all four? Won't that make the whole thing unstable?"

"Of course, we thought of that. That's why we changed those rear wheels into big pads, for better balance."

"I see you also eliminated the tail. More cost-saving? But how do I keep the whole thing from flopping over on its side?"

"Well, rather than adding stabilizing gyros -- too expensive -- we use some little tubes in that vestibule over here (inside the auditory receptor), to detect excessive tilting and send signals to the central computers to correct it."

"Computers? Plural? Oh, I see: there are two of them. One is a backup for the other?"

"Yes, remember our 'two-by-two' policy. The one on the left is mostly linear, and the one on the right mostly handles 3-dimensional problems, but they back each other up and can take over for each other when necessary."

"Wow, that's pretty cool! I just hope they don't argue too much."

Y Y appears momentarily depressed by this, then becomes moody, but remains silent.

"Tell me, how can I roll around in that thing, without any wheels?"

"Oh," Y Y brightens again, "you can just shift the full weight onto one of the pads, then move the other one forward. Shift your weight the other way, and repeat the process."

"Can you run that by me, once more?"

Y Y does.

"I guess that's better than doing wheelies. Still sounds complicated."

"We'll walk you thru it again, later. You'll get used to it -- after a year or so of practice."

"Why not just add two limbs and keep the four wheels?"

"Costs way too much. Besides, you could always tilt back down, and use all four to crawl, in case you need to get underneath something."

"You said there were a number of problems with this 'stand-up' change. Any more?"

"Well, since you ask, there was a little problem with the support system for the manipulators. It's kinda humorous, when you think about it, but really very minor."

"And what is this little problem."

"Each support has a hinge in the middle, and the electrical connections get rather close to the surface as they go around it."

"So?"

"Well, if that elbow bumps into something, a signal is sent to the computer, which triggers a false alarm. Very-noticeable but harmless. Funny, isn't it?"

"Now that the main support, back there. has become a vertical column, rather than horizontal, there's a lot more weight pushing down on the lower segments, and squeezing those "ligaments" holding them together. Are you sure those little rings and discs can withstand greater compression and still remain flexible?" Getting up even more backbone, Red added, "that might also cause problems with the electrical cords that go thru the canal to reach the computer."

"Now, now, now, why don't you just let I. D. Architecture worry about all that, Red?"

The next day, Red noticed a change in the manipulators. Opposite the thick rod, the flat plate had been split in two rods, then one of the splits was split again, and there was a smaller one partially split off from the last one. "What's that," Red asked, pointing to the smallest prong.

"Oh, we call that the 'pinkie'. It doesn't do much, but it's kinda cute."

Thru the open door, Red thought he heard the pretty receptionist singing, "*cry 'whee, whee, whee' all the way home."*

"Those wiggly lines in the computer case -- I don't recall them being there, yesterday."

"You've got a keen eye and a good memory, Red. Yes, we had to make a couple of changes in the case, because our fabrication equipment wasn't big enough to cast the shell in one piece. Besides, we found that there would be great difficulty when prototypes are processed thru a narrow outlet."

"Pray tell, how did you solve those problems."

Arching his eyebrows, Y Y smilingly replied, "First, we split the protective case into five pieces, to let it fold up somewhat smaller, when necessary. Then, we added a couple of temporary holes at the top.'

Red scowled, dubiously.

"Don't worry. All of those gaps will fill in and fuse together eventually, so the case actually becomes stronger over time. That way, the computer can be expanded later, as more storage capability gets added."

"Very clever," Red opined. *(Unvoiced was the thought, "I need that like a hole in my head!)* "So, that debugs the last of of the computer problems?"

"Well, not quite. There still wasn't room for graphics software to handle optical inputs, so we had to add some auxiliary processors within the camera cables."

"Anything else? Red inquired.

"Well, we couldn't get the focal length right, so we made the lenses softer and put in a couple of servo motors to squeeze them."

"Oy, veh!" mumbled Red, unconsciously rubbing his eyes, "What a corny idea. Rather silly, if you ask me, ***Chiefy***."

Y Y glares for a moment, as if his vanity is offended by the nickname, but does not respond.

"One more thing," Red declared at the final meeting, " From time to time, some of the models may want to carry small children around for a few months."

"Yes, that was in the mods you gave the receptionist on Thursday"

"Well, how do the children finally get out, when the destination is reached."

"Oh, that's easy. We'll just use the #1 outlet port for that."

"Why not the #2? It's much larger."

"No, that'd be too messy, believe me! Don't take my word for it; you can ask our receptionist. It was Ms. Chavah who suggested that change."

Hmmmm. Well, then, what happens when the children no longer need to have that feeder tube in the middle?

"No problem. Just tie a knot in it."

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Arriving on the final day, Red is informed that all work is done and the prototypes are available for inspection.

"I can't wait to try mine on, for size."

"Go ahead: hop in and take it out for a spin! Get used to it, then let me know what you think."

"Do you like the way it handles? How does it feel, Red?"

"Well, it certainly makes me feel like **somebody**!"

"And what do you think of 'I. D' Architecture' now? You were rather skeptical, at first, but I hope you'll sing our praises, now?"

"I must say, YY, that I am overwhelmed by what you have accomplished in only a week."

"Less than a week. We're opening the showroom to make your delivery, but today is normally our day off."

"Well, you deserve the rest! However, I'm less than pleased with some of the kludges and shortcuts that were incorporated. I guess that comes from using the lowest-bidder for this job."

"May I remind you," Y Y replies with a grin, "that we were the **only** bidder available, around here." He adds, "Therefore, 'I. D.' was the best available."

"By the way, what does 'I. D.' stand for?"

"I thought you knew. '**Intelligent Design**'," Y Y thunders, proudly.

"Oh, really? I thought maybe the 'I.' stood for **Incompetent**."

The receptionist giggles at this, then tries to hide her expression by biting on a piece of fruit. She breaks into gales of laughter when Y Y scowls and opens his mouth but only steam comes out. Red smiles at her, and she smiles back, knowingly. He gestures for her to try out one of the prototypes. She blinks with surprise, but after a brief hesitation, does so, shyly yet eagerly.

Now that he is on a roll, Red wonders aloud, "Maybe the 'I' stands for that silly 'Inguinal Canal' you added yesterday, to let those things descend." When she blushes, modestly, he adds, "Thinking about that balled-up workaround -- punching holes in the abdominal wall -- the only words that come to mind are **'Irresponsible"** and **'Idiotic'**. I'm starting to wish I had shopped around for another designer, first."

Suddenly, the ground rumbles beneath and lightning illuminates the entire office, whereupon both of them are unceremoniously expelled from the premises.

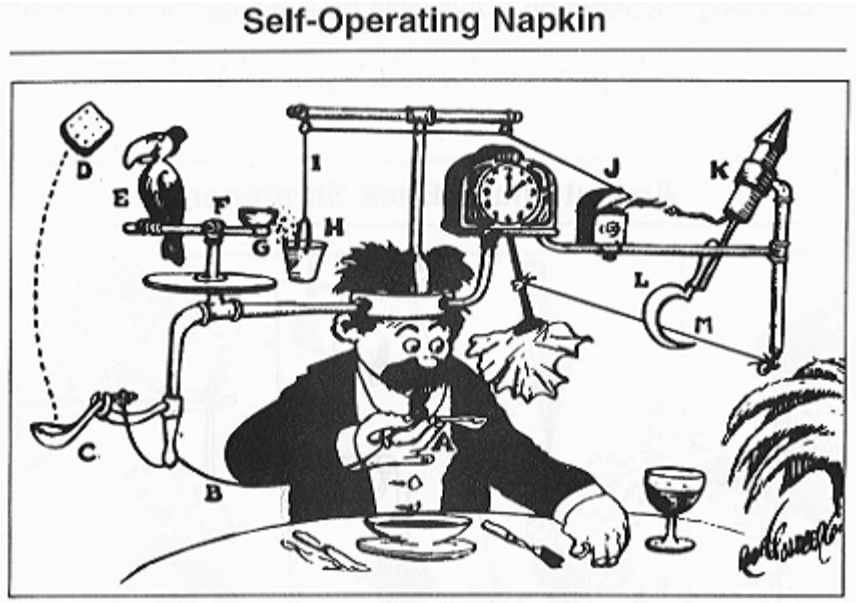
Dramatis Personae *(in order of appearance)*:

- The receptionist was played by Eve Chavah.[1]
- Mr. Sands was played by Adam, Man of Red Earth
- Chief Y Y was played by Dyáuṣ Pitṛ́[2]
- Instructions were provided by Francis Crick[3].
- Assistant Project Manager was played by Prof. Garret Lucius[4] Butts.
- The forbidden fruit was portrayed by Tim Cook[5]

Locale: Basrah,[6] Babylonia

Copyright: 22 October −4004, James Ussher[7]

Produced & Directed by: Edwin Hubble[8]



https://en.wikipedia.org/wiki/Rube_Goldberg_machine



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& Reuben Garrett Lucius Goldberg
(July 4, 1883 – December 7, 1970).

Professor Butts and the Self-Operating Napkin (1931). Soup spoon (A) is raised to mouth, pulling string (B) and thereby jerking ladle (C), which throws cracker (D) past parrot(E). Parrot jumps after cracker and perch (F) tilts, upsetting seeds (G) into pail (H). Extra weight in pail pulls cord (I), which opens and ignites lighter (J), setting off skyrocket (K), which causes sickle (L) to cut string (M), allowing pendulumwith attached napkin to swing back and forth, thereby wiping chin.

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[1] חוה
[2] द्यौष्पितृ
[3] Dr. Watson.
[4] R. G. L. Goldberg
[5] Tim Cook
[6] Photograph of the locale.
[7] Archbishop of Armagh
[8] 67.77±1.30