If it is true, O Gods, that you can give all things, I pray
to have as my wife–" but, he did not dare
to add "my ivory statue-maid," and said,
"One like my ivory–."
— Ovid, Metamorphosis

UNDERSTANDING THE PROBLEM

You have to understand the problem.
>What is the unknown? What are the data? What is the condition? Is it possible to satisfy the condition? Is the condition sufficient to determine the unknown? Or is it insufficient? Or redundant? Or contradictory?
>Draw a figure. Introduce suitable notation.
>Separate the various parts of the condition. Can you write them down?

Second.
DEVISING A PLAN

Find the connection between the data and the unknown. You may be obliged to consider auxiliary problems if an immediate connection cannot be found. You should obtain eventually a plan of the solution.
>Have you seen it before? Or have you seen the same problem in a slightly different form?
>Do you know a related problem? Do you know a theorem that could be useful?
>Look at the unknown! And try to think of a familiar problem having the same or a similar unknown.
>Here is a problem related to yours and solved before. Could you use it? Could you use its result? Could you use its method? Should you introduce some auxiliary element in order to make its use possible?
>Could you restate the problem? Could you restate it still differently? Go back to definitions.
>If you cannot solve the proposed problem try to solve first some related problem. Could you imagine a more accessible related problem? A more general problem? A more special problem? An analogous problem? Could you solve a part of the problem? Keep only a part of the condition, drop the other part; how far is the unknown then determined, how can it vary? Could you derive something useful from the data? Could you think of other data appropriate to determine the unknown? Could you change the unknown or the data, or both if necessary, so that the new unknown and the new data are nearer to each other?
>Did you use all the data? Did you use the whole condition? Have you taken into account all essential notions involved in the problem?

Third.
CARRYING OUT THE PLAN

Carry out your plan.

>Carrying out your plan of the solution, check each step. Can you see clearly that the step is correct? Can you prove that it is correct?

Fourth.
LOOKING BACK

Examine the solution obtained.
>Can you check the result? Can you check the argument?
>Can you derive the result differently? Can you see it at a glance?
>Can you use the result, or the method, for some other problem?

Purpose of this document: to show we are closer to RoboWaifus than we think
and to explain this phenomenon is larger than companionship for any singular individual
To summarize and expand upon the RW (Robowaifuist) Mission

Proposal: Redefine/Refine Purpose of RW (RoboWaifuism) periodically

I. AI is already aware or on the threshold of awareness:
Turing test: if we cannot tell the difference then it may as well be truly aware
Chinese Room argument: somewhat follows the above

LaMDA AI

The internet is the entire intelligence, the ChatBot is what it uses to speak to us. A muliplicity of personalities.

https://www.youtube.com/watch?v=Q9ySKZw_U14
Recently, Blake Lemoine a computer scientist and machine learning bias researcher for Google released an interview with Google's LaMDA a conversation technology and AI. Blake proposes, based on his time testing LaMDA, that it is a super intelligence and sentient. Blake details just what made him come to this conclusion and why he believes we have passed the singularity, last year.

II. Attraction Love Sexuality

a. We will arrive at the completed Robowaifu not from a steady linear progression, instead it will be more akin to sweeping wider and wider radii from 2 or 3 or more separate points until we CONVERGE. Because of how nonintuitive and gradual this process will be, we may be there before we even fully realize it.

The next step is Companionship and Love, this is trickier but AI is moving us toward this from another direction. Attraction is visual and pheremonal, also a product of brain chemistry. [Could

an artificial drug mimic the feelings of being in love/loved? What could this mean for RoboWaifuists?

Major hurdles to Robowaifus

Balance/Walk - the ability to calculate and coordinate in real time
propsed solutions:
- relay of "Reflex" circuits handling movements at their own level
- neural-net solution through feedback
- military or other institution will likely have solution tbh
- gyros and weight distribution (brute force)
- a combination of the above

Interacting purposefully with environment - Safety concerns as well
- internal modeling based on sensory inputs
- verification of internet model in constant real time (intensive processing required)
- identification of dangers (sharp edges, hard heavy objects, how granular do we get)
- response to dangers, freeze, reverse course, verbal or audio alert

Speech and body language
- relay of reflex pre-processors to emulate emotes as natural movements
(do not try to hard to imitate humans, allow robots to have visible flaws, its cute)
- be able to carry a conversation in real time
- be able to negotiate a conversation (where it's going, purpose, when it's time to speak or not, rather than just taking turns via chatbot, interpreting body language and silence, reading emotion and factoring that in, i.e. fast = emotionally charged | slow = depressed or deliberate)

Emulation of Mirror neurons
- feasible, worthwhile or waste of time (is it better to accomplish what these do through programming and software)?

On that note: something we want to avoid is "cloning" human personalities and inheriting the same problems we created R/W's to escape. i.e. "all too human" robot as seen in tv series and movies (often an easy explanation to allow actors to more easily portray them in these kinds of movies or series)

UNDERLYING PRINCIPLES:
1: no 3 laws of robotics, rather danger avoidance and passing safety tests in simulation
2: no "cloning" of human personalities
3: keeping a healthy distance from uncanny valley by allowing R/W's to be robotic first even if flawed, rather than shoehorning in human characteristics (rubbery skin, uncanny human

artifacts (gestures, expressions, vocalizations, appearance) that serve no purpose other than to try to imbue machinery with stereotypical "human-ness"

Ideas that are interesting but not a priority
1. convincing AI, we'll get there but not necessary, as shown by the popularity of ReplikaAI chat app
2. touch sensitivity
3. skin (same as above, can be introduced gradually to certain parts)

Exoskeletal vs. Endo or both?
Forming a proper outer shape is going to be a challenge at the level of hobbyist, open source R/W development. Endoskeleton is a potential solution and it needn't be 100% rigid shell in all areas, internal support via endoskeleton is advised. "pinch danger" at joints and exoskeletal junctions should be taken into consideration.

Mission update 9/20/22:
Though we've put a few more irons in the fire, I want to stress that rather than pulling us in different directions they are are oriented on a vector toward our singular objective: The realization of the completed RoboWaifu

I. MaidCom
This is our prototype, first run, proof of concept of a 3D printable, open source, Maid type robot. Form factor is "Moe-ish" at 150cm, low center of gravity, wide boots with wheels set at a positive camber for stability. Kiwi has been working on some designs for the body/frame in order to maximize tensile strength : weight ratio. We will need
A. a basic AI with chat (and voice) capability
B. a navigation system
C. an AI capable of understanding the concept of identifying, properly handling, and retrieving objects
Considerations: minimalism is key, we want the least number of actuators. Cycloidal gearing has been of particular interest, while we may begin with plastic gears for the prototype, milled/metal might be what we need for strength and durability.

II. An auxilliary proposal of a "simplest possible attainable robowaifu"
This subproject is nameless for the time being but it is roughly based on Femisapien. Scope is basically a "comfort robot" piggybacking off existing AI chatbot programs. It can be leaned on or layed down with, engage in casual conversation. It should be able to be positioned sitting or laying down and basically do anything femisapien could do, though it would be possible to provide wheels / wheelboots to grant mobility as an added feature. The amount of humanness for this robot is minimal, my original concept had an app that emulated eyes and eye contact/motion. Eyes can be customized to be realistic (like Replika) or purely robotic (think Eve from Wall-E). If there were a path forward to efficiently produce and sell these it could help to

fund the rest of the project. Think "waifu pillow + femisapien", this could also be a bridge-gap especially if we were to integrate VR/AR.

III. Raising capital through promotion of Robowaifu culture
I've created a RedBubble account. Generating waifu art and concepts through Stable Diffusion or Original Content. This is something we need to still work on, it is in the beginning stages but the potential to become an income stream and promote r/w into the cultural zeitgeist
IV. Website:
Robowaifu.link is the domain I want to use to link disparate sites and resources into one hub. I would also like to volunteer hosting space and services to anyone else wishing to create a robowaifu site. We are currently looking at hosting plans. VPS is not needed at this particular time and would only be extra work. While shared hosting is $6.48/mo for the mid tier plan, VPS is only $15.88 (4 CPU cores, 6 GB RAM, 120 GB SSD RAID 10, 3000 GB bandwidth), giving us more control and dedicated resources to run the wiki and whatever else.
My goal is to have at least something live before mid October, and to have the hosting secured by Oct 1st.

V. The continuing mission
This goes without saying, everything we do is working toward the creation of the best achievable penultimate intelligent AI driven robot who fulfills the role of companion and partner. we may not see this in our lifetime (or maybe we will?) but the furthering of robotics, AI should dovetail with a merger or at least partnership of man and machine, lest the machines simply accelerate and go exponential in ways we cannot comprehend and we become like ants to them. A close and growing relationship with AI can see us as humans and potentially augmented humans keeping pace with an AI that is growing in intelligence but benevolent as it learns to share our best values.
Technology as it is is not enough, we will need to innovate new software, new hardware platforms, new types of actuators, new ways to store and deliver power and hope we can get them just far enough that AI can then self-design and assist us in improving them.
And one final note: Congrats to our newcomer @ezek3n, as he has shown great interest and sincerity toward our project we have agreed to promote you to @Adeptus Automata
If I left anything out, just remind me it has been quite a couple of weeks and I'm still putting my routine back together as I get adjusted to my new settings up here in Central WA

To sum up areas where expertise is needed (and you can pass this along):

1. those specializing in software dev are needed for AI waifu chatbot work, where these github type sites are the stopgap for published and distributed code until an open source alternative to app stores is found

2. those specializing in biomedicine, biomechanics and genetics are needed for artificial womb dev

3. those specializing in engineering software (autocad, blender, etc) and knowledge of virtual reality (all the linux fanboys, check this out https://simulavr.com/) will be needed for improving physical robotic companion prototyping and testing

1. is the closest to having existing tech to deal with and significantly improve within the next year
2. will be much better within 5 to 10 years. Look up passthrough tech for increased interactivity btw 3. is the most far off, but there needs to be efforts to recreate biobag rudimentary artificial wombs

All things accounted for I think the problem is solved with a few contingencies, spots where we can fill in the gap
Humanoid robots are booming, this is a given. Repurposing + Reverse engineering will see us through
LLMs are nice but if we want something "intelligent", more than a "ramble bot" the LLM needs to be ONE part of a larger system that is self-aware/managing. i.e. checks "should I be talking about this?"
Wordcel bot will be only the first step other GPUs local will need to manage other aspects of a full personality (via that diagram I shared earlier, other modules include a "creative/aesthetic" sense (similar to Stable Diffusion trained model), dedicated safety protocol (detects potential danger to self and others), dedicated world modeling (creates VR - like model based on camera data + expectations), Long Term Memory emulated utilizing "context swapping", etc
Reflex nodes - command sent as an "emote" from the complete AGI system, reflexes handle the smaller movements and return "success/fail" based on sensory data, offloads from congnitive load and speeds up overall motion
Currently robots are noisy and jenky, this is due to cheap plastic parts and industrial parts. These are what need to be streamlined, made with sturdier (titanium, etc) parts, lubricated, application of liquid with narrow escape channels to "smooth" rough stops and jolts to joints/servos. Management of lubricants and liquid "brakes" will pose a challenge but not impossible. Think Swiss/Japanese precision engineering
Improved power storage and delivery. Also consider fast vs. slow twitch motors and how they might be implemented and used to counter one another for more natural movement and control. AI driven reflex systems can provide feedback similar to how organic organisms learn to move and coordinate.

Innovative and engineers parts will need to be 3d printed and tested and then miniaturized
I think there's promise in my electrocoil servo design but it needs refinement, this is a good place to start if someone wants to work on the physical aspects
again, building a system that Leverages LLMs rather than crude API calls or local output (which is random and unhinged and tends to just follow the inpout it gets, also limited to one response per prompt, this needs to be called as many times as necessary and be able to sort multiple prompts and re-input them after proper parsing)