

Robot Services Exchange (RSX)

Welcome to the future of automation services! This repository contains the code for the Robot Services Exchange.

What is it?

The Robot Services Exchange (RSX) is a marketplace that connects buyers and sellers of robot services. Think of it as a job board where robots are the service providers. It's also a webpage where people who want to buy robot services can, by submitting bids indicating the maximum amount they are willing to pay for the service.

Key Features

- **"Buyer Interface"**: Easily place bids for specific robot services - (time, location, service, bid)
- **"Seller Interface"**: Accept job offers
- **"Smart Matching"**: Automated pairing of service requests with the best-suited robots
- **"API-First Design"**: Fully programmable for seamless integration

How It Works

1. Buyers submit bids specifying service, location, time, and price
 2. Sellers list their robots' capabilities and availability
 3. Our smart exchange matches buyers' needs with sellers' offerings
 4. Deals are struck automatically based on the best price match
-
5. Robots perform the requested services
 6. Payments are securely processed and distributed

Why Use Robot Services Exchange?

- **"Efficiency"**: Streamline the process of finding and hiring robot services
- **"Cost-Effective"**: Competitive bidding ensures the best prices for buyers
- **"Flexible"**: Wide range of services catering to various industries
- **"Scalable"**: Easily expand your robotic workforce or service offerings
- **"Future-Proof"**: Be at the forefront of the automation revolution

Get Started

Ready to interact with robot services? Check out our [documentation](index.html) to begin integrating with our API.

Join us in shaping the future of robot services - where efficiency meets innovation!

Components

The Robot Services Exchange consists of three main parts:

- **"Buyer Client"**: Interact with the exchange API through the `'/make_bid'` route.
- **"Seller Client"**: Interact with the exchange API through the `'/grab_job'` route.
- **"Exchange"**: This repository, which handles the core internal functionality of the platform.

Technical Details

The exchange API facilitates the interaction between buyers and sellers:

- Buyers can set bids for a specific (service, location, time, price) tuple.
- Sellers submit requests for jobs with a (service, location, time) tuple and receive the highest matching bid.
- Once a deal is struck, the buyer pays, the robot performs the service, and then the seller is paid.

For more detailed technical information, please refer to our API documentation.

![Description](images/weird.png)