FIGTEC
ENGINEERING

Capability Statement

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OVERVIEW

What is FigTec Engineering?

FigTec Engineering is a WA-based Engineering Consultancy specialising in Design, Simulation and Dynamic Modelling. FigTec is run by Cooper Figliomeni, a Mechatronics Engineer with experience in cutting-edge autonomous systems, structural design, dynamic modelling and technical analysis.

FigTec offers a variety of services to clients across the construction, robotics, manufacturing and resources industries. Each engagement is treated as an opportunity to grow and develop the business into new areas and capabilities, meaning one-offs, innovative prototypes and complex systems are welcomed and encouraged.

SERVICES

Design and Engineering

Have a concept that needs designing, or a system that needs in-depth technical analysis before full scale production? FigTec's Design and Engineering services provide you with the assurance that your product will meet requirements.

INDUSTRIAL DESIGN AND ENGINEERING

Detailed technical analysis and design using model-based-design workflows. Combining expertise in various skillsets such as...

- 3D MCAD (Computer-Aided Design for mechanical components)
- ECAD (Computer-Aided Design for electrical components)
- FEA (Finite Element Analysis)
- Transient Dynamic Analysis and Simulation

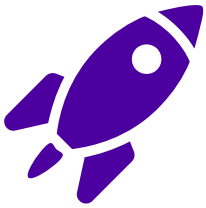
Delivered as...

Design Documentation	Manufacturing Services
• Detailed design report showing calculations and simulation results • 2D Drawings, STEP Files and DXFs for seamless manufacture	• Working with manufacturing partners to engineer and physically deliver your system • End-to-end documentation and QA

SERVICES

Simulation and Dynamic Modelling

FigTec's Simulation and Dynamic Modelling services are perfect for those designing or optimising complex autonomous or robotic systems. Software packages designed to help your engineering team increase your system's capabilities.



DYNAMIC MODELLING AND CONTROL

Mathematical models that predict the motion of your physical system in the format you choose, perfect for:

- Building and improving your own simulations
- Plant models for Hardware-in-the-Loop testing (HIL)
- Control and motion planning for autonomous systems

Delivered as...

Functional Mockup Unit (FMU)	Software Package
• The emerging industry standard for model integration • Tool agnostic and compatible with common workflows	• Python, C, C++... software delivered in whatever format you currently use • Built and validated in MATLAB/Simulink

SIMULATION

Simulation packages and standalone applications, designed to assist you in optimising your system. Some examples include:

- Power consumption modelling across selected operating profiles
- Performance gains from active vehicle dynamics control
- Simulation environments for perception and sensor fusion algorithm testing

Delivered as...

Standalone Compiled Executable (.exe)	ROS Simulation Package
• Windows application allowing you to optimise your system • Input your system parameters, output validated results	• Robot Operating System (ROS) package containing a full simulation environment • Allows extensive software testing of your perception and motion algorithms

WHY FIGTEC?

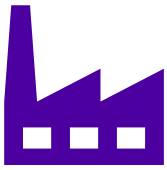
Engineering your system through FigTec has its advantages...

AI-ACCELERATED WORKFLOW

You pay for the things that make your system perform, not for unproductive contractors. FigTec saves you time and money by handing off appropriate internal tasks to secure AI agents.

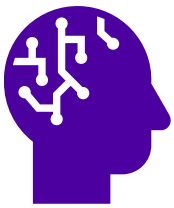
COMPETITVE PRICING

Modern tools and faster workflows mean you'll pay considerably less than you would for an inferior solution from larger providers.



MANUFACTURING CONNECTIONS

FigTec is well connected with industry-leading manufacturer Unique Laser. Together we can bring your designs to life with capabilities such as Laser Cutting, Plasma Cutting, Bending/Folding, CNC Machining, Fabrication and Assembly.



THE WAY OF THE FUTURE

FigTec uses state-of-the-art engineering design and analysis tools such as MATLAB, Simulink and Solidworks to turn concepts into manufacturable realities. Model-based-design workflows make iteration and improvement a breeze.

SLEEP WELL AT NIGHT

Before you ask, the answer is yes. FigTec Engineering has Public Liability and Professional Indemnity Insurance up to $1M for all activities related to Engineering Design and Simulation.

PROCESS

How will all this work?

Free Initial Consultation

Understanding your system and requirements. Determine what services you need.

Scoping of Work

Delivery format and timeline agreed upon. Quote issued to client.

Design and Analysis

Periodic check-ins and data transfer to validate progress and simulated performance.

Delivery and Review

Integrate and test your solution or prototype. We'll agree to any necessary changes.

Pay Up

Project close out with a transparent invoice for services.