

# Automotive Engineer

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**Type:** Fulltime

**Location:** Nairobi, Kenya

## Overview

Mobius is an early stage social business working to enable mobility across Africa by transforming its automotive market. We recognise that appropriate transport is a key enabler to socio-economic development in deprived communities across the developing world and aim to unlock this vast potential by designing, manufacturing and selling a new vehicle for Africa, starting in Kenya.

We are always looking for exceptional individuals who share our vision and possess the skills and attitude necessary to make a valuable contribution to our work in Africa. If you are qualified and interested in joining our team, please apply online at [www.mobiusmotors.com/join-us](http://www.mobiusmotors.com/join-us).

## Description

We are seeking a minimum one year commitment from an exceptional early career automotive engineer to lead the engineering, build and test of a new vehicle that will form the basis of our main product offering into the African market – a truly unique opportunity to create impact on a global scale. The role will require a close working relationship with the venture's CEO, Automotive Designer, Cost Engineer as well as the local Kenyan mechanics and welders on the team. Specific duties include, but are not limited to:

### Technical Engineering

- 1** Engineer prototype vehicle framework and select off-the-shelf systems collaboratively with Automotive Designer and Cost Engineer, using computer-aided design packages; pay close attention to issues of safety, reliability, economy, aesthetics and functionality.
- 2** Maintain feasibility of engineering approach for low volume production tooling and limited in-country resources. For example, steel stamping presses will not be available at initial production.
- 3** Determine the most suitable materials for space frame fabrication as well as the most appropriate systems to integrate within the framework (standard, off-the-shelf systems) collaboratively with the Automotive Designer and Cost Engineer.
- 4** Review and revise engineering and/or production processes in response to feedback from colleagues, safety concerns, quality issues, loading requirements etc.
- 5** Advise and assist team of local Kenyan mechanics and welders on the prototype vehicle build and general workplace best practices (e.g. equipment safety standards).
- 6** Verify product feasibility of all welding processes and implementing programs to improve overall weld performance (e.g. conduct weld pry testing and weld teardowns).
- 7** Apply mechanical, pneumatic, hydraulic and electrical principles and rigor to resolve engineering problems with appropriate solutions.
- 8** Ensure high quality standards throughout the vehicle build; develop test procedures and conduct tests using software packages and physical testing methods.

- 9** Utilise in-country equipment and materials and adapt approach to the low-tech resources available. For example a manual pressurised pipe bender versus computerised pipe bender.
- 10** Evaluate and ensure manufacturability, buildability, and integration with Automotive Designer, Cost Engineer, Supply Chain Associate and future Production Planners and Product Managers.
- 11** Identify, create solutions, and resolve technical design conflicts collaboratively with Automotive Engineer and Cost Engineer.
- 12** Coordinate input from external customers to better understand customer needs and/or perceptions of product collaboratively with Automotive Designer.

## **Project Management**

- 13** Lead and facilitate engineering review sessions; revise approach with stakeholder feedback.
- 14** Take ownership of projects; plan milestones, timelines, budgets, resources and identify potential risks to deliver engineering aspects within agreed completion dates.
- 15** Be proactive regarding task completion and periodically advise wider team on project status, timing, resources, issues, and ability to deliver on-time with excellence.
- 16** Ensure adherence and compliance to general automotive industry engineering standards and best practices; maintain structured and versioned data outputs daily and backup data weekly.
- 17** Work as an active member of the team, ensure effective communication between colleagues and positively contribute regularly to meetings and briefings.

## **Qualifications**

An ideal candidate should combine outstanding technical skills in design and engineering with excellent interpersonal and communication skills to work effectively with a multidisciplinary team. They should be rigorous, pragmatic and on-the-ground solution focussed – not overly academic.

### *Required*

- Bachelor degree (minimum) in Mechanical Engineering, Industrial Engineering, Industrial Systems Engineering or similar
- 3.4 GPA or higher from a top university worldwide
- 1-2 years of automotive-related experience, preferably on a vehicle build project
- Ability to read and write design and manufacturing drawings
- Proficiency in SolidWorks, Unigraphics or AutoCAD
- Welding experience and knowledge of weld quality controls
- Passion for prototype development and a pragmatic attitude
- Ability to adapt to a dynamic working environment and work within a diverse team
- Extreme patience and a good sense of humour
- Excellent oral and written communication skills
- Excellent interpersonal skills to work effectively with others
- High level of analytical and problem solving skills
- Ability to self manage; taking ownership of projects: budgeting, work planning, resource management and reporting

- A start-up personality; entrepreneurial, ambitious, independent, systematic attention to detail, structured thinker, goal-oriented, flexible and able to deal well with setbacks

*Desired*

- Masters degree (or higher) in Mechanical Engineering, Industrial Engineering, Industrial Systems Engineering or similar
- 2-5 years of automotive-related experience, preferably on a vehicle build project
- Detailed understanding of automotive exteriors, interiors, manufacturing and operations
- Proficiency in CATIA
- Proficiency in COSMOS
- Hands-on experience with pipe bending and notching
- Involvement in a dune-buggy/sandrail build specifically
- Fluency in Kiswahili (the national language of Kenya)