HISTORIC & CLASSIC VEHICLES ALLIANCE
HCVA
ESTABLISHED 2021

HOSTED BY

JAGUAR LAND ROVER
- CLASSIC -

HCVA TRADE MEMBERS INSIGHT DAY

A HISTORIC FUTURE

OCTOBER 2024

A Historic Future
HCVA Trade Members' Insight Day 2024

AVOIDING THE ELECTRONICS CLIFF-EDGE OF DISASTER

Ralph Hosier
Owner of RH Engineering

AS OLD ELECTRONICS FAIL HOW CAN WE KEEP OLDER CARS RUNNING?

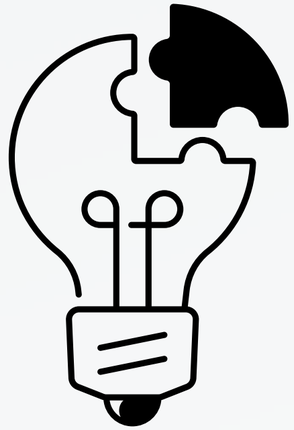
WILL CARS OF THE ‘90S HAVE TO BE SCRAPPED WHEN THE CIRCUITS FAIL?

WHAT COULD GO WRONG...

- Electronic ignition
- Bulb failure warning & other small units
- Engine management ECU
- Gearbox ECU
- ABS
- Body control modules
- Immobilisers

E,g,
XJS – ignition vacuum control unit
P38 – bcm

Understand and repair electronic circuits



This requires training on old electronic components and circuits.

Understand how to analyse and select modern equivalent components and how to make small modifications to circuits to use modern components.

ADAPT AND OVERCOME

- Understand and modify systems to remove features that don’t work any more, including immobiliser and out dated emissions systems etc.
- Emissions and the law! Don’t make the emissions worse!
- How to replace with modern equivalents – cats, sensors, actuators etc.
- Modifying circuits – circuit analysis, knowledge sources, tools and skills
- Modifying software – EPROMS to Flash.

Alternative generic off-the-shelf systems

New engine management, such as Emerald or Motec

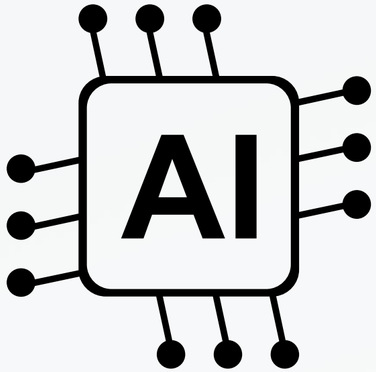
New auto gearbox controllers, such as Compushift

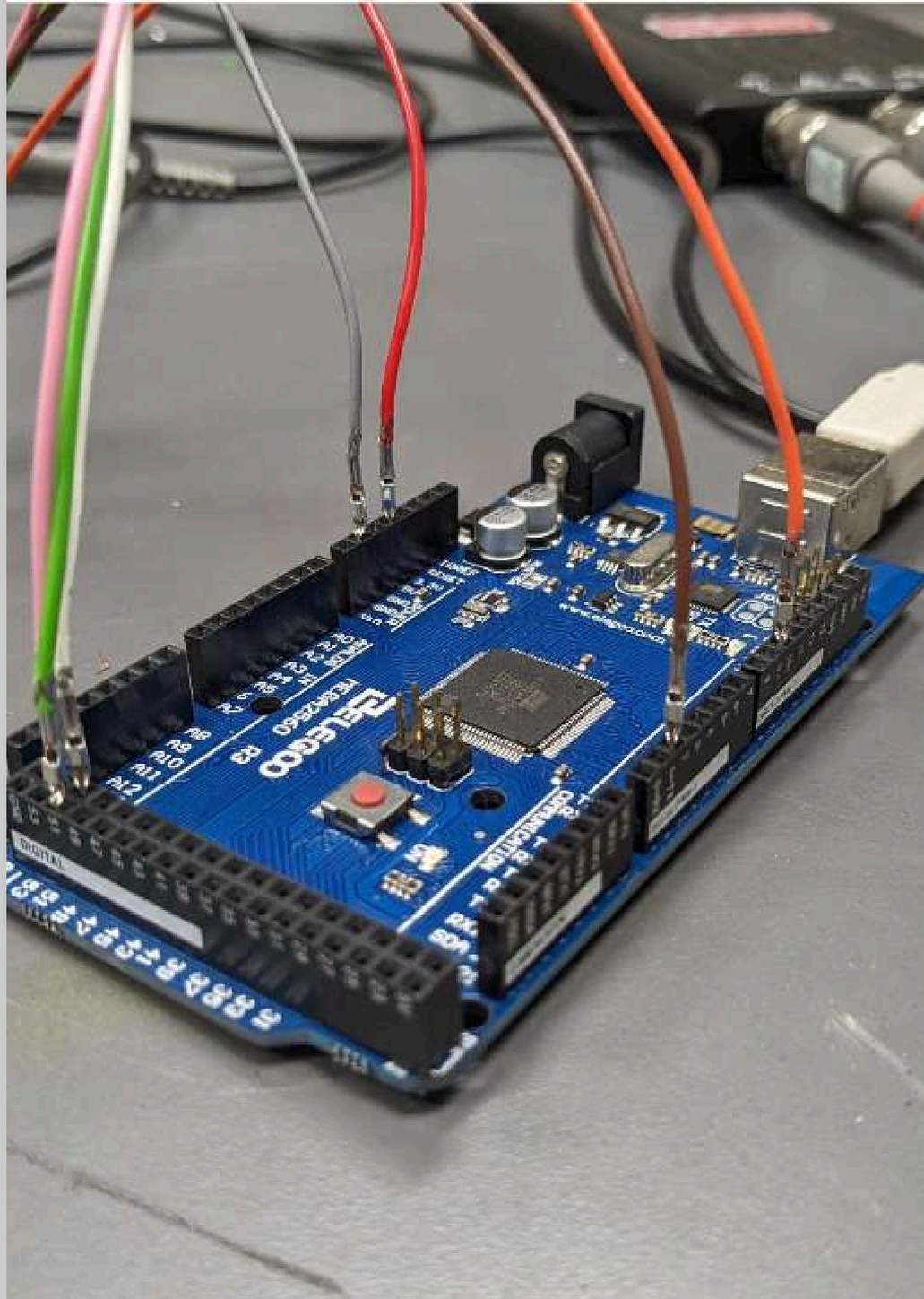
New body controllers, such as New Eagle

ALL NEW?

Understand and design new systems using modern electronics, including controllers such as Pi and Arduino.

Requires some understanding but coding can be done with AI now.



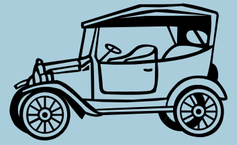


HOW DO WE TURN THE TIDE?

Training – to inspire and educate.

Understand old electronics – what components are used, capacitors, transistors, failure modes etc.

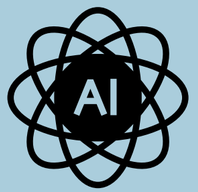
Understand old vehicle systems – what did they do?



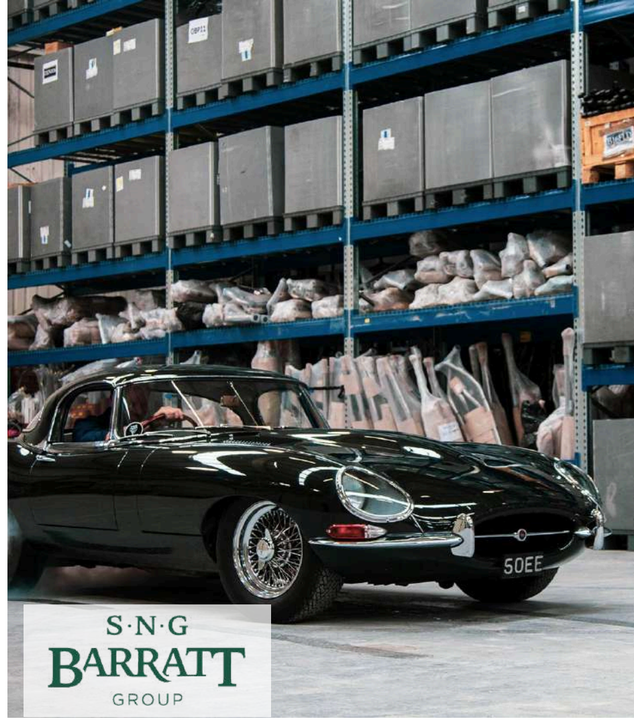
Knowledge of alternatives – components and systems.

Skills in soldering, circuit analysis, using diagnostic tools, wiring etc.

Knowledge and skills in using web resources, AI for design and coding



Build a knowledge base of issues and fixes.



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