



Welcome to the 2019 Huddersfield Railway Challenge Team (HUDRAIL)

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WELCOME TO OUR NEWS PAGE

Rolling Road

The Rolling Road was designed to test drive the locomotive in the Railway Challenge laboratory. All necessary parts of the test rig have been fabricated; the team aims to have the Rolling Road assembled by early April. This will allow the team to spend extra time on the calibration of the locomotive systems to optimize the settings in preparation for the competition and to collect data about the locomotive in a controlled environment.

Locomotive Improvements

With the competition date fast approaching, HudRail is entering a high hustle mode: showing a great level of motivation and commitment to progress on the locomotive whilst retaining a careful and systematic approach in the research design and implementation of new developments within the project. Our efforts have been focused on resolving the issues with the electrical systems. A complete rewiring and redesign has been carried out to help our students to understand how the electric framework functions. With the HudRail locomotive weighing in at 800kg with a dual bogie design, it is the heaviest vehicle to enter the competition. It is also the most powerful, however, these traits are detrimental to the functioning of the energy recovery system (ERS) as the locomotive will require more energy to begin motion from stationary using the ERS. Further optimisation efforts have been made in this area. Unfeasible changes like redesigning the whole power system, starting from the petrol engine to the generator, would be too costly and the lead time on delivery of items or implementation alone would be too great to make it a reasonable area of development.

Instead, the team have dedicated more time into general improvements. For example to increase reliability and maintainability as this year these challenges are worth the most points. This focus will make sure the locomotive runs as smoothly in the lab as it does after being transported to Stapleford for the competition and so none of the systems experience critical failures (e.g. components shorting out or chains snapping).

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New Website

HudRail is working hard to bring together the project website which is expected to be completed at the start of April. The website will feature information such as our competition history, the Railway Challenge Event details, the team members and their associated roles, contact details, newsletters, photos, and much more. The team is pleased with the highly professional layout and smooth functionality of the website. With the immense help from the Web and VLE Support Assistant, Latisha Ziana Mahmood, the website is looking the best it has in years. We would like to thank her for her dedication and hard work.

3M Simulation Video



HudRail has recently received news that the simulation video by 3M is well on the way. There is a snapshot preview of the new 3M simulation video in the newsletters main picture. The video will be a minute long and will showcase the locomotive running around a detailed model environment of Stapleford Miniature Railway.