

Edexcel Principal Learning

Engineering

Level 2

**Unit 8: Exploring Engineering Innovation,
Enterprise and Technological Advancements**

Pre Release Material
May 2012

Paper Reference
EG208/01

You do not need any other materials.

You are not allowed to take your pre release work into the examination.

Turn over ►

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PEARSON

Case Study – Solar Powered Lawnmower

SolarNRG is an eco-friendly manufacturing company that has designed a new product. Although the idea is not new, the design and look of the product are its own.

The new product is called the *SolarCut* which is a lawnmower powered by an on board solar panel. This allows grass to be cut without the need for mains electricity.

The lawnmower is designed to be environmentally friendly and provide enough power to be able to cut the lawn of an average family home.

SolarNRG wants the SolarCut to be manufactured using high volume production processes.



Instructions

You are to investigate the viability of the SolarCut product. Your study should identify the steps SolarNRG will need to undertake if the product is to be a success. Your study should investigate the following areas:

- intellectual property
- research and development activities
- financial review
- range of materials and their properties
- high volume production processes (wheels, grass storage box, handle and starter lever)
- potential impact of solar power on a range of environments
- social and environmental impact