

PROTOTYPE DESIGN COLLECTION

SERIES 1



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e-ISBN: 978-967-0033-07-5

First published, 30 September 2022

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PUBLISHED BY:

Pusat Pengajian Kejuruteraan Mekanikal,
Universiti Teknologi MARA Cawangan Johor,
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CHAPTER 7

Design, Analysis and Fabrication of Automatic Feeder for Cows

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PROJECT DESCRIPTION

Unhygienic cow barns contribute to the tendency of the cows getting infected by Lumpy Skin Disease (LSD). Farms that are prone to flies, ticks, and lice are risky for the cows because they might be infected. The effect of this disease is significant to the cattle industries, where the meat and milk from cows are consumed by humans. There is a need for an innovative feeder for the cows to prevent the disease from spreading. The objectives of this project are to design and fabricate an automatic feeder for cows. This scale-down product is capable of feeding hays to the cow automatically based on the timing set by the user. The 3-dimensional drawing for the product was done using computer-aided design software. The body of the feeder was built using aluminium sheets. The automatic feeder was developed using an open-source electronic prototyping platform and a servo motor powered by a 9V battery. The prototype for this project is successfully fabricated with the feeder automatically releasing the food when needed and has a cover to protect the hays from flies and ticks. This product is expected to provide an alternative solution to the disease and to help reduce the workload of the farmer.

Keywords: cow, automatic feeder

PROTOTYPE



DESIGN PARAMETER

