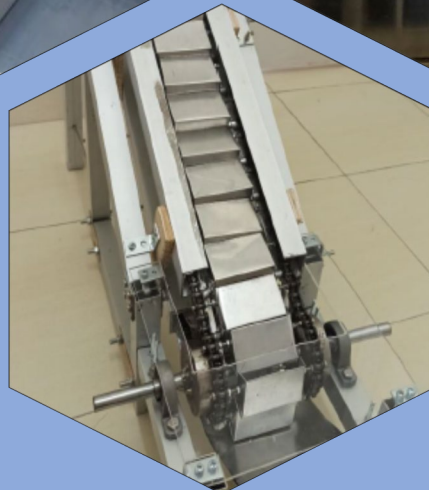
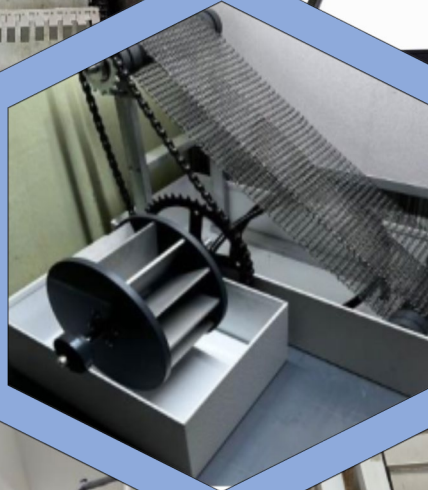


PROTOTYPE DESIGN COLLECTION

SERIES 1



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

First published, 30 September 2022

EDITORS:

Ahmad Najmie Rusli

Nurul Nadiah Rasdi

PUBLISHED BY:

Pusat Pengajian Kejuruteraan Mekanikal,
Universiti Teknologi MARA Cawangan Johor,
Kampus Pasir Gudang,
Jalan Purnama, Bandar Seri Alam,
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CHAPTER 27

Motorized Adjustable Television Wall Mount

Aiman Hakim Amir James and Noor Hafiz Noordin

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PROJECT DESCRIPTION

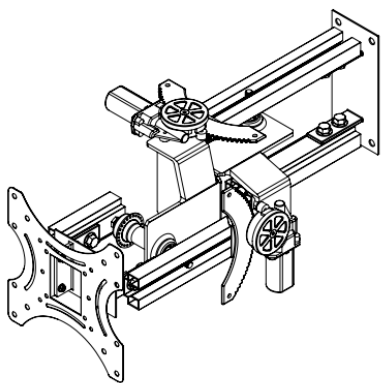
An automated television wall mount was designed, and a prototype built to provide remote control adjusting of the physical orientation of a flat screen television. Watching a television with full focus needs a head on perpendicular to the screen. There are also some users who place their television in a higher place on a wall and once they must change the angle of the screen will tire them. The objective of this project is to create and develop an adjustable television wall mount with motorized control design effortless adjustment and full motion flexibility with maximum available viewing angles. There are some methodology solutions used in this project. The first one should be creating a Morphological Chart with listing a lot of possible solutions to create and sketch designs as much as possible. The best design would be selected based on the highest score gained from Pugh Chart and would be analysed and simulated using CAD software. Fabrication of the product would be used in several manufacturing processes. As an expected result, the motorized wall mount should be able to handle a television with 25 kg maximum weight, up to 50-inches size and can rotate the viewing angle up to 45 degrees to right, left, up and even down without any issue.


Keywords: *Automated, Television, Wall Mount, Motorized, Adjustable*

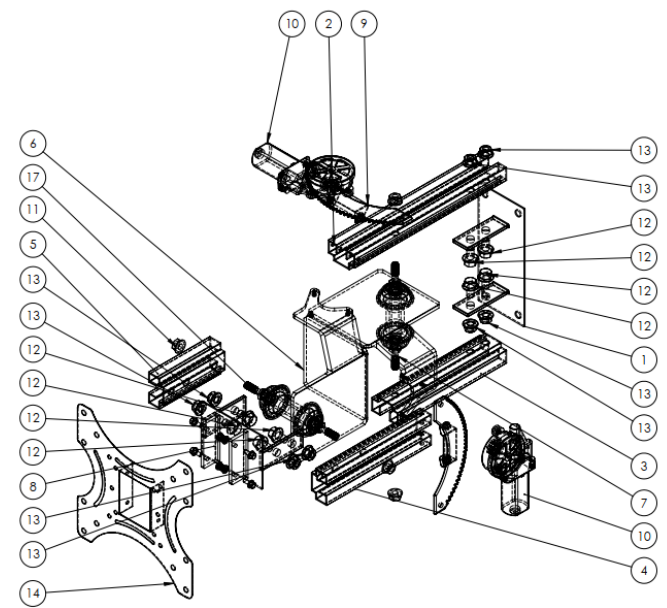
PROTOTYPE




DESIGN PARAMETER



 Fakulti Kejuruteraan Mekanikal Cawangan Johor Kampus Pasir Gudang	
Course Name: MEC300 - FINAL YEAR PROJECT 2 (SEP - JAN 2021)	
Group: J4EM1105C	
Project Title: Design, Analysis and Fabrication of Motorized Adjustable Television Wall Mount	
Drawing Title: Assembly Drawing	
Part Name: -	
Part No.: -	
Scale 1:4	
Drawn by Aiman Hakim bin Amir James	



ITEM NO.	PART NAME	QTY.
1	Bracket Backend Part	1
2	Rail Car Seater (Up Horizontal)	1
3	Rail Car Seater (Down Horizontal)	1
4	Rail Car Seater (Right Vertical)	1
5	Rail Car Seater (Left Vertical)	1
6	Main Plate with Bicycle Hub	1
7	Axle Shaft Bicycle Hub	2
8	Bracket frontend/VESA bracket	1
9	Gear Regulator Power Windows	2
10	Power Window Motor	2
11	M10, 15-Hex Size Nut	4
12	M10, 14-Hex Size Bolt 1.5 Thread	8
13	M10, 14-Hex Size Nut 1.5 Thread	8
14	VESA Mounting	1

 Fakulti Kejuruteraan Mekanikal Cawangan Johor Kampus Pasir Gudang	
Course Name: MEC300 - FINAL YEAR PROJECT 2 (SEP - JAN 2021)	
Group: J4EM1105C	
Project Title: Design, Analysis and Fabrication of Motorized Adjustable Television Wall Mount	
Drawing Title: Exploded Drawing	
Part Name: -	
Part No.: -	
Scale 1:4	
Drawn by Aiman Hakim bin Amir James	