Mechanical System Diagram in LaTeX Tikz

CBCO

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Exercise

Use latex for all your drawing. See latex codes above for your referenc.

1. Draw the free body diagram of mechanical system shown in Figure 1 (b).

2. From your free body diagram, derive the equation of the mechanical system.

3. Rearrange your equation for control system block diagram. Generate the control system block diagram.
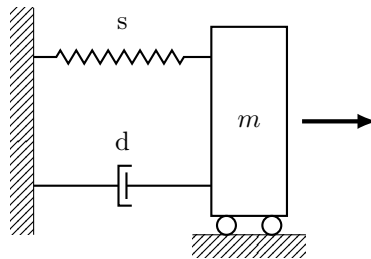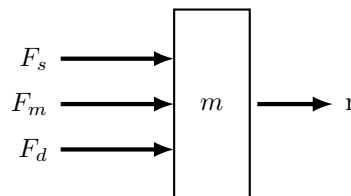

Figure 1: (b) Mechanical System Diagram
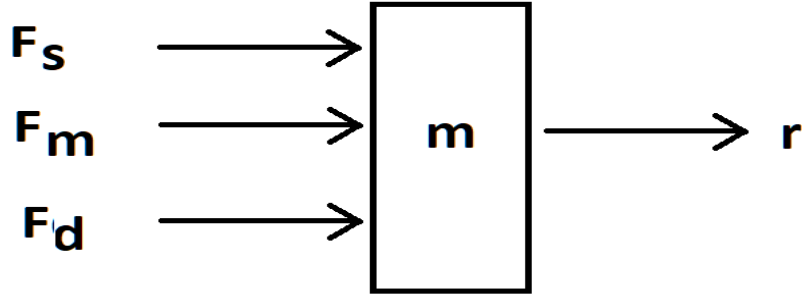

Figure 2: (b) Free Body Diagram

Alternative Drawing.

Figure 3: Drawn using Paint Brush

References

[1] Daniel Braun Tim Hoffmann (TeXstudio) Pascal Brachet (Texmaker) Luc Buant (QCodeEdit) Joel Amblard (html conversion) Benito van der Zander, Jan Sundermeyer. Textstudio 2.12.10. *Source Forge*, Copyright © 2018. download from https://sourceforge.net/projects/texstudio/.

[2] Karl Berry. Latex2e: An unofficial reference manual, Copyright © 2022, Karl Berry, Latex2e.

[3] Pascal Brachet. Texmaker, Copyright © 2003-2023, Free Software Foundation.

[4] Herbert Kreyszig Edward J. Norminton Kreyszig, Erwin. *Advance Engineering Mathematics*. Number ISBN 978-0-470-45836-5. John Wiley & Sons, 2011, 2006, 1999.

[5] Clement J. Savant Jr Gene H. Hostetter Raymond T. Stefani, Bahram Shahian. *Design of Feedback Control Systems*. Number ISBN 0-19-514249-7. Copyright © Oxford University Press, Inc, 200.