



Christian Moore

Computer Science Major Second Year
ARCS Scholar Genuine Parts Award

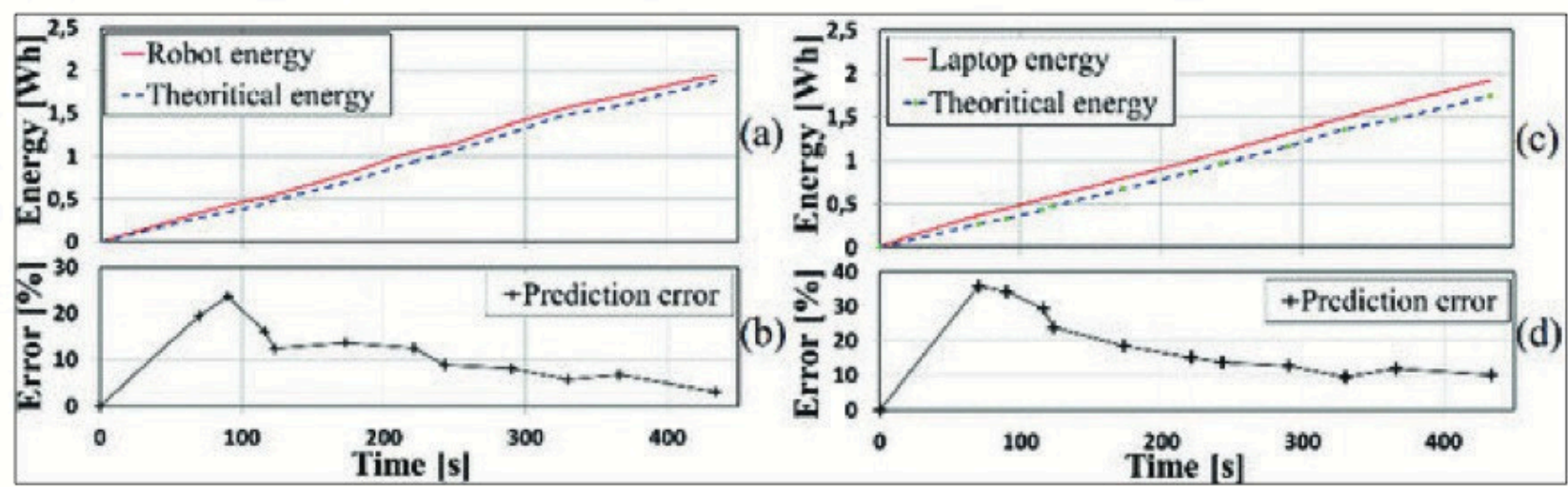


MOREHOUSE
COLLEGE

Optimizing energy output for robots

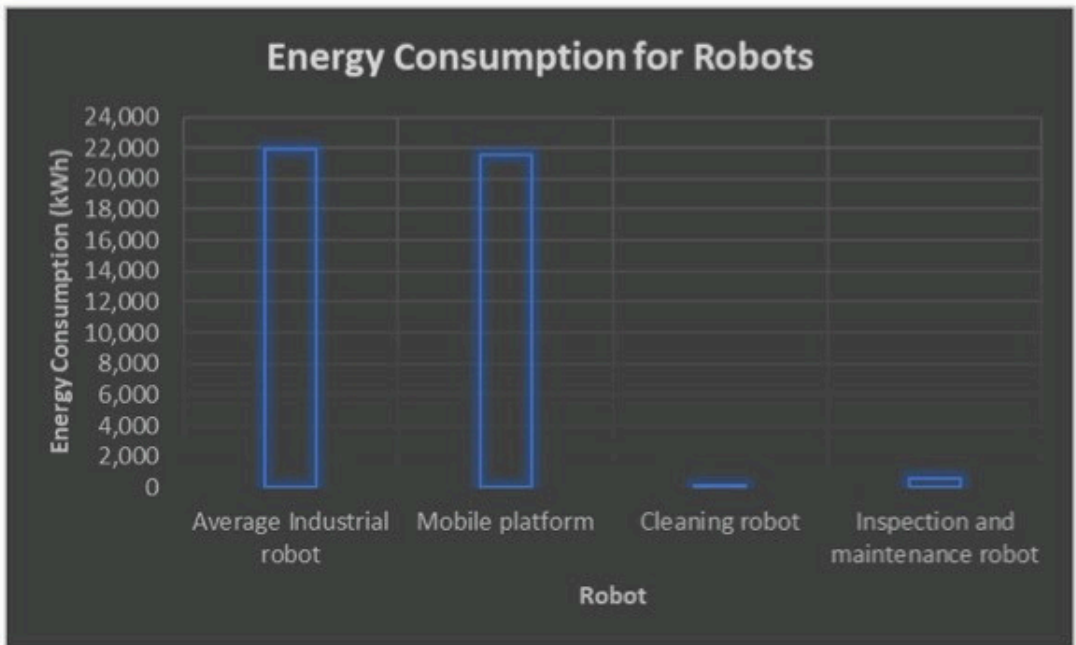
I am researching how to lower energy consumption for the various robots we use today. Robots make our lives so much easier; however, we need to be conscious of the cost of such technologies. Energy must come from somewhere and we do not want to run out.

Theoretical vs. Actual Energy Output



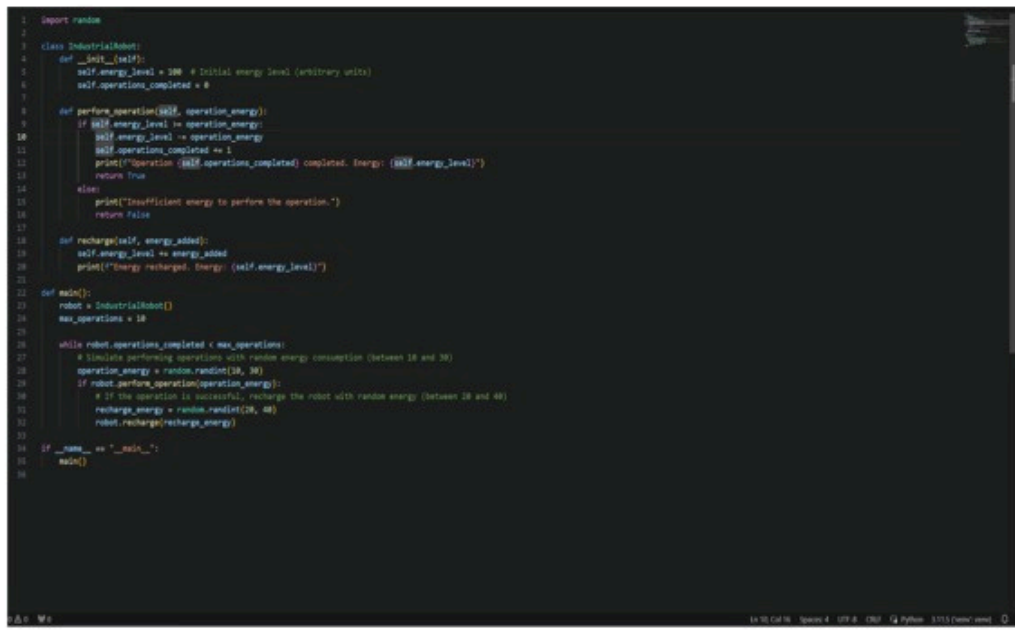
- The theoretical vs. actual energy output from Robot and Laptop use.
- Up-scale this and we have a greater deviation in energy output.

Different Energy Consumption for Robots



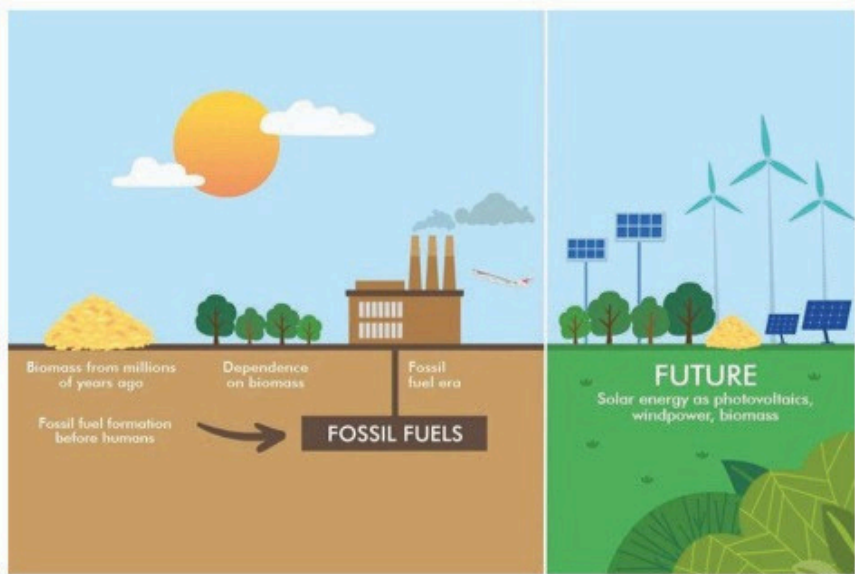
- As we can see, the focus needs to be on average industrial robots and further optimize their work.

Python Code for Robot energy consumption



- We use random robot energy consumption data for demonstration.
- With an actual robot, we would have actual energy consumption data.

Future Thoughts



- Less energy consumption.
- Robots do not need climate-controlled environments.
- Energy efficient robots imply power source from sustainable energies.

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