INDUSTRIAL ENGINEERING

WHAT IS INDUSTRIAL ENGINEERING?

Industrial engineering is an engineering profession that is concerned with the optimization of complex processes, systems, or organizations by developing, improving and implementing integrated systems of people, money, knowledge, information, equipment, energy and materials.

WHERE DO INDUSTRIAL ENGINEERS WORK?

Industrial engineers can work as manufacturing engineers, production enigineers, supply chain engineers, finanial engineers, and so much more!

CAN YOU THINK LIKE AN INDUSTRIAL ENGINEER?

One of the main parts of being an industrial engineer is making proccess more efficient. Today we will be seeing how to make the proccess of making a sandwich more efficient!

THE EFFICIENCY OF MAKING A SANDWICH

HELPFUL DEFINITIONS:

Present Method: the current way of completing a process

Proposed Method: the improved way of completinng a process

Workstation: an area, at a workplace, for a single worker to do their work

MATERIALS NEEDED:

- Whatever you want to put in your sandwich! ☺
- Timer/ stopwatch

INSTRUCTIONS FOR PRESENT METHOD:

First we will time our present method of making a sandwich.

1. Set up your workstation
2. Start your timer
3. Build your sandwich
4. Stop your timer and write down your time

HOW TO MAKE A PROPOSED METHOD:

There are many changes you can make to improve your **present method** and come up with a **proposed method**.

- Design work to utilize both hands
- Hand and arm motions should be symmetrical and simultaneous
- Design work to favor preferred hand
- Worker’s two hands should not be idle at the same time
- Minimize eye focus and travel
- Locate tools and materials in fixed positions within the work area
- Locate tools and materials close to where they are used
- Locate tools and materials to be consistent with sequence of work elements
- Perform multiple operations simultaneously rather than sequentially

INSTRUCTIONS FOR PROPOSED METHOD:

Now we will make changes to our proposed method and see if it was more effecient than our present.

1. Create proposed method using tips above
2. Set up work station
3. Start your timer
4. Build your sandwich
5. Stop your timer and write down your time

WAS THE PROPOSED METHOD MORE EFFICIENT THAN THE PRESENT METHOD?

Compare the times for the two methods and see which one took less time. The method that took less time is the more efficient one!

DID YOU TAKE ANY PICTURES?

Send us pictures and videos of your experiments at swerutgersoutreach@gmail.com! Tag @rutgersswe on Instagram if you post about them and be sure to look out for December's SWE Learn Activity!