

# PACE OF LIFE

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## INTRODUCTION

The Pace of life is a public social marker installation that indicates happiness in ones life to make people alter their out of Work-Life Balance. According to Andrew Oswald 's study in 2012, Work-Life Balance is regarded as a happiness marker in modern society (Oswald, 2012). This balance seems to be broken since we pay attention on work instead of other elements such as health, friends, family and recreational activities. Although our economy has prospered, it has not necessarily increase happiness in our lives. Conversely, it had accelerated our pace of life, causing a variety of adverse outcomes including physical illness, CHD, Coronary Heart Disease, and mental illness, stress or indifference. Therefore, this interactive installation serves to remind people of the importance of Work-Life Balance, as an indicator to remind us of how overwhelmed we have been with the increase in our pace of life, work and stress. This project hopes to make aware of present modern living condition to balance ones lifestyle.

## CONCEPT AND BACKGROUND

Work-Life Balance is a concept including proper prioritizing between "work," career and ambition, and "lifestyle," health, pleasure, leisure, family and spiritual development/ meditation ("Work-Life Balance," 2010). As Work-Life Balance is stable and satisfied, people generally feel happier in their lives. For example, when eating with family members, hanging out with friends or sleeping more, one can balance between work and lifestyle. According to behavior scientist Dr. Andrew Oswald, the "Easterlin Paradox" indicates that growth in income is not correlated to growth in happiness; there is evidence that society is not becoming happier since there seems to have been a noticeable rise in work intensity and tiredness (Oswald, 2013). Having lived in Hong Kong and New York City, as well as in my country, Taiwan, I have noticed that people walk exceptionally fast on public transportation systems, such as subway or trains. They are indifferent to each other and are not willing to help people in need. I began to be curious about what cause them to be walking so fast? Are

they going to work? Who are they meeting? What is so important for them to be walking so fast? Or has it become a habit to walk so fast?

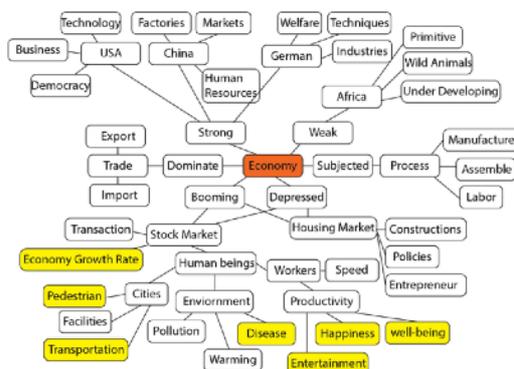


Figure 1. This mind map is brainstorm of the relationship between Economy growth of happiness.

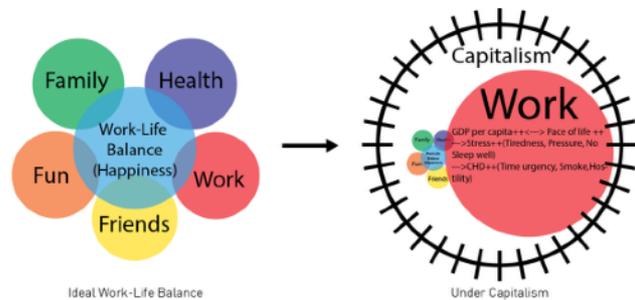


Figure 2. The Out of Work-Life Balance diagram depicts the constraint from capitalism; it makes us pay most attention on “Work” resulting in out of balance, stress, CHD and adverse behaviors.

In 1999 a study was conducted to monitor the pace of life in 31 countries around the world, it indicated that the more vital a city’s economy, the faster its pace of life (Levine & Norenzayan, 1999). As a result, it is an urgency to work, meet or run to business or clients on time. Thus, it seems that the people living in big cities are restrained by the stereotype and established rules of—economics.

Thus, why does economy force people to work like robots doing tasks day and night? Although, capitalism can allow economic growth, increase real GDP per capita, and improvement overall living standards, it still cause a variety of defects such as, monopoly power of firm, wealth inequality, social benefit ignored, inequality of opportunity and even social division (Tejvan Pettinger, 2013). All these causes have made earning a living a requirement among the common people to satisfy their basic living standard in order for them to feel happiness. Therefore, most people are controlled by capitalism, forcing them to accelerate their pace of life in order to strike a balance under the inequality of wealth distribution among the rich of the world.

However, as mentioned above, when pursuing GDP per capita, our happiness does not increase, instead, it has caused more dissatisfaction. According to the study of Pace of Life in 31 countries, the overall pace of life is positively correlated to the country's GDP especially in advanced countries indicated by walking speed, postal speed (work speed), and time accuracy (Levine & Norenzayan, 1999). That is, under fast pace of life, our stress levels has escalated resulting in tiredness, insomnia, lack of confidence and general unhappiness (Oswald, 2013). In addition, people are at higher risk of coronary heart disease, CHD, because of lifestyles, such as, smoking or time urgency causing higher rates of death due to faster pace (Levine & Norenzayan, 1999). In fact, in some lower economic developing countries with low GDP per capita, such as, Latin America, Brazil and Venezuela, citizens have shown almost the same degree of satisfaction in happiness level compared to developed

countries such as Japan and England (Angus Deaton, 2008). Hence, it is necessary to make aware of the fast pace lifestyle and its unfavorable consequences among countries with high GDP without rise of happiness.

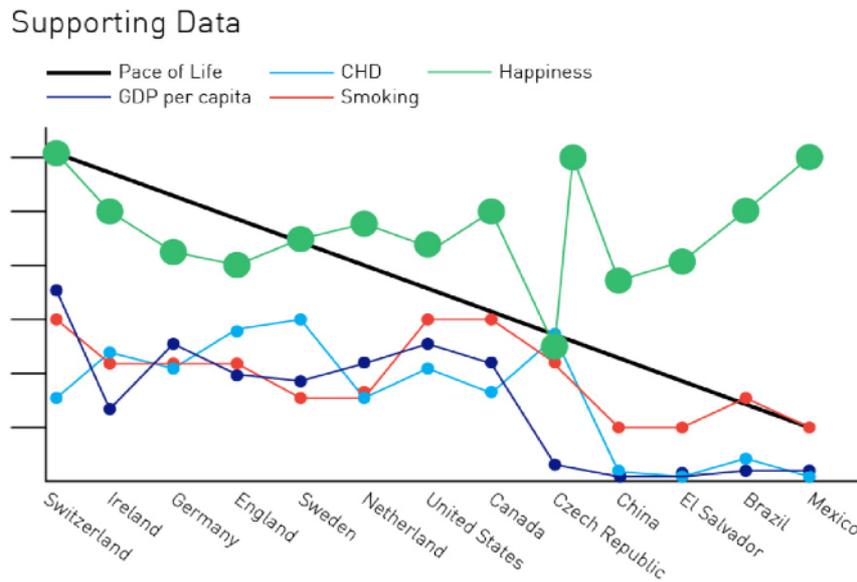


Figure 3. Research of the relationship between Pace of Life, CHD, Happiness, GDP per capita and smoking in different countries (Levine & Norenzayan, 1999).

## DESIGN

In this installation, I designed 3 elements, country gears, human running figure, and flash lighting effect, to depict the fast pace of life within the eight countries. The goal is to make people aware and in hopes of slowing down their fast pace lifestyle, paying more attention to other significant parts of their lives, and striking a balance in their work-life. This installation was designed to make the audience feel stressful and uncomfortable from the fast rate of spinning gears, twinkling lights and operating sounds.



Figure 4. These inspiration diagrams discuss Work-Life Balance as controlled by capitalism; the sketches present the shapes of nowadays work-life.

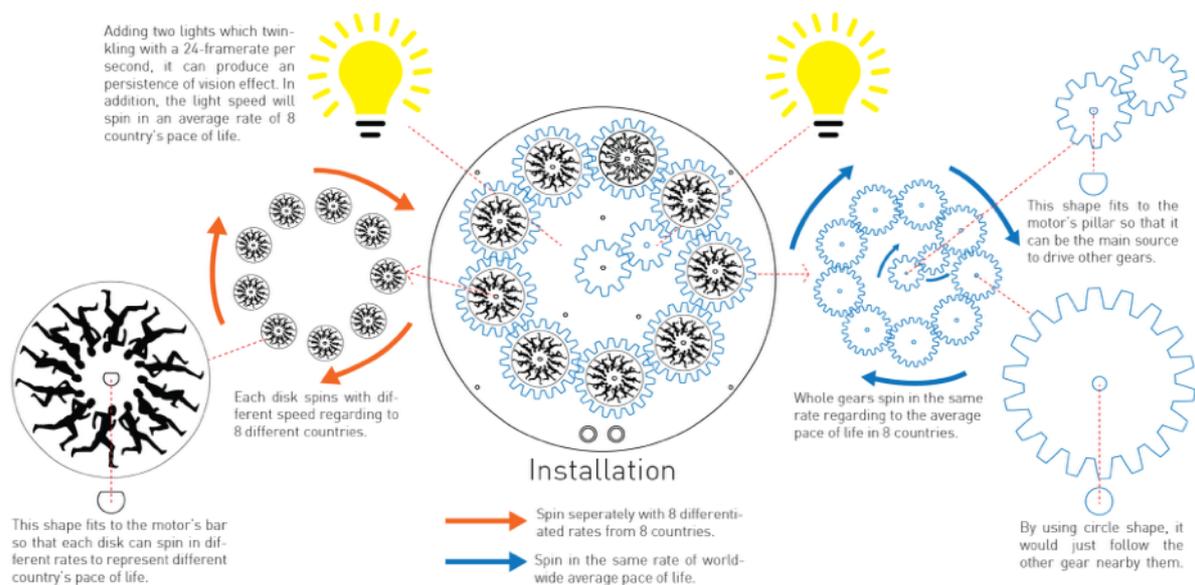


Figure 5. This diagram discusses the pace of life installation mechanism; they are divided into three segments –the restraints of capitalism (circle), pace of life in eight countries (gears) and the running human figures (disk). In addition, flashing lights are added to produce persistence vision effect.

First, to express the restraints of capitalism, I chose a circle to symbolize a prison limiting prisoners in a restrained cell just like fetters or capitalism restricting the freedom of our lives into day to day mundane living. Since the freedom of market within capitalism works within systematic established process of operation utilizing markers such as GDP per capita, increase production and stabilization of stock markets, people that live under these conditions are forced to accelerate their pace of life, causing adverse health problems and unfavorable feelings in their lives. As a result, obligation to daily jobs, loss of leisure time and urgency to be on time has caused more restrictions, stress and joyless lifestyle. Furthermore, the circle installation is designed as in seeing our Earth from the top of Arctic circle, those eight countries are configured in a circle-like shape and being constrained by fetters to represent the restraints of lifestyle from capitalism.

Second, the main center gear of this installation is designed to symbolize capitalism as a driver to the other eight circular gears, or countries. The rotation speed is an average rate of the pace of life within eight countries to represent how capitalism has forced people to operate at a fast pace. Since the gears are connected to each other through the main motor in the center, it operates at the same fast speed. Furthermore, I designed another disk of running human figures shown through slits within the transparent acrylic gears (representing the average countries pace of life) to express the pace of life within these different countries. Hence, the running human disks will spin at a different rate according to the eight differentiated pace of life within the eight countries. The view of the running man symbolizes the condition that people are constantly rushing, running or accelerating to jobs to earn a living under the a capitalistic control.

Third, I installed flashing light at the rate of 24 frame rates per second to produce persistence of vision effect, the phenomenon that produces the illusion of movement when viewing motion pictures, of the man running at a fast pace. Without the flash of light, the spinning disks with human running figures will only be an animation without the created effect to depict a fast pace. Additionally, these rapid twinkling lights are able to create a phenomenon of time lapsing to depict the fast passing of day and night in modern day living. Moreover, the lights act as a way to make the audience feel stressful and depressed, a method created to simulate and make aware of the fast pace lifestyle we are living in.

## MECHANISM AND CONSTRUCTION

Pace of life is constructed by using the Arduino system, a software program in computer which controls the Arduino Mega 2560, a microcontroller board with digital input and output pins, analog input pins, UARTs (hardware serial ports), and USB connection. This board receives inputs from sensors, and influence our environment by controlling lights, motors, and other actuators (“Arduino MEGA 2560 Overview,” 2013).

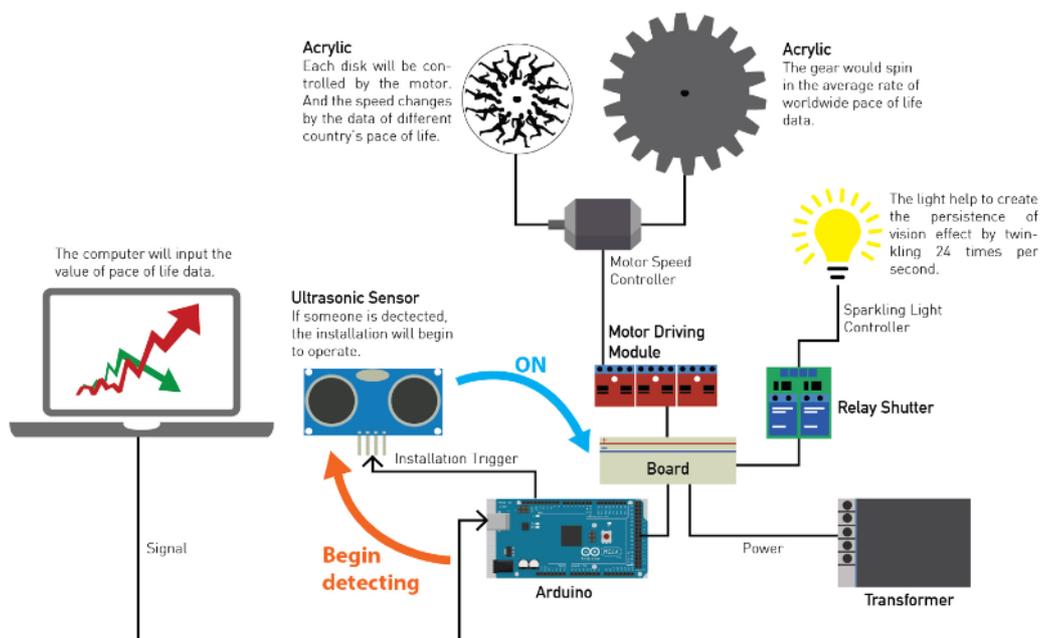


Figure 6. This diagram describes the operation process of this installation. It utilizes the Arduino program to control the motors, ultrasonic sensor, motor driving modules and relay shutters. Materials: Computer/ Arduino Program/ Arduino board/ Ultrasonic sensor/ Motor drivers/ Relay Shutters/Motors/ Acrylic/ Light bulbs/ Transformer

To begin, I coded the signal to the ultrasonic sensor, motor driving module and the relay shutter. First, the signal to the ultrasonic sensor detects the distance of objects in this environment. If the audience walks within 50 centimeters (default value) in front of the installation, the Arduino program would send three kinds of default signal to motor driving modules and relay shutters; otherwise, the motors and the shutters would stop operating and the ultrasonic sensor would keep detecting. If triggered, the motor driving modules would receive two kinds of default signals. The first one is a number which is an average rate of

eight countries pace of life to control the main country gears in the center of installation that drives the rest of eight country gears to rotate. The second signal transmits to the running figure motors with the eight different pace of life rates. Third, an average of rate of eight countries pace of life is signaled to the relay shutter making the shutter open and close rapidly resulting in flashing lights.

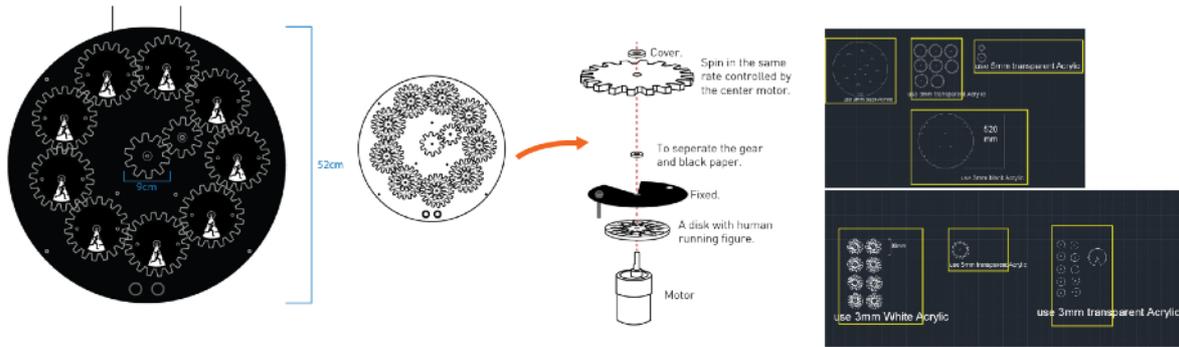


Figure 7. This figure shows the detail structure installation diameter that is 52 centimeters long with how the gears and disks were controlled by the motors.

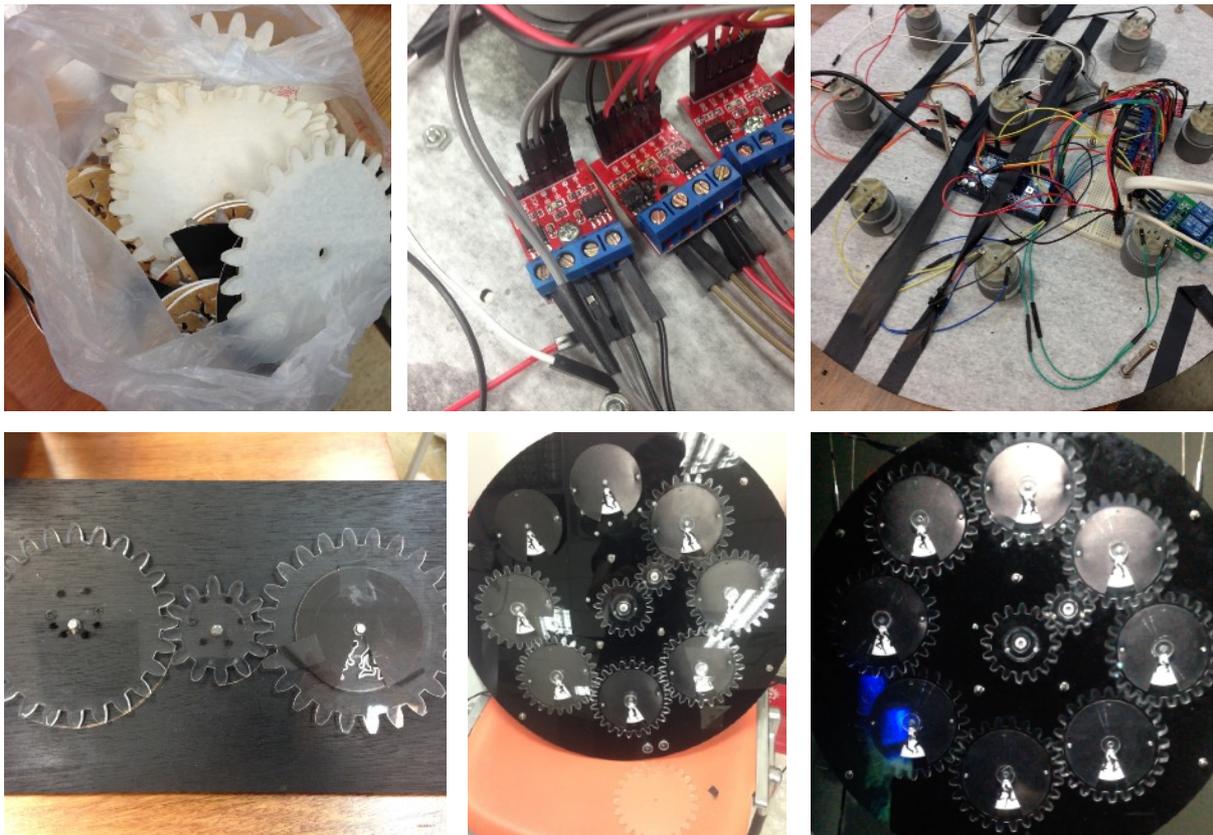


Figure 8. This figure shows the steps when constructing this installation. The picture on the left-top shows how the acrylics are cut by the laser machine. The right-top picture shows the construction of motors and Arduino board behind the installation.

## FUTURE WORK

From 2014 to 2016, there are a variety of smart watches such as, Apple Watch, Fitbit Blaze or Garmin Vivofit, appearing in the market to monitor people’s health condition. The calculator watches, traditional watches with only basic function such as calculating, translating and gaming, have been altered into smart watches with real-time function using GPS to track user’s walking pace, running speed, and heart rate (“Smartwatch,” 2013). These data are connected to smartphones to record personal data in applications, which allow them to keep healthy in a suitable way as well as alerting while heart rate is too fast with suggestion of daily calories and advice for heart rest rate. As a result, by utilizing those real-time data, there is an opportunity to utilize citizen’s pace of life data in Taipei City to inform the common pedestrians their rate of pace compared to the rest of the city. Thus, citizens will realize other people’s walking speed in comparison to the different districts in Taipei City to monitor their own stress condition as an overall city health marker.

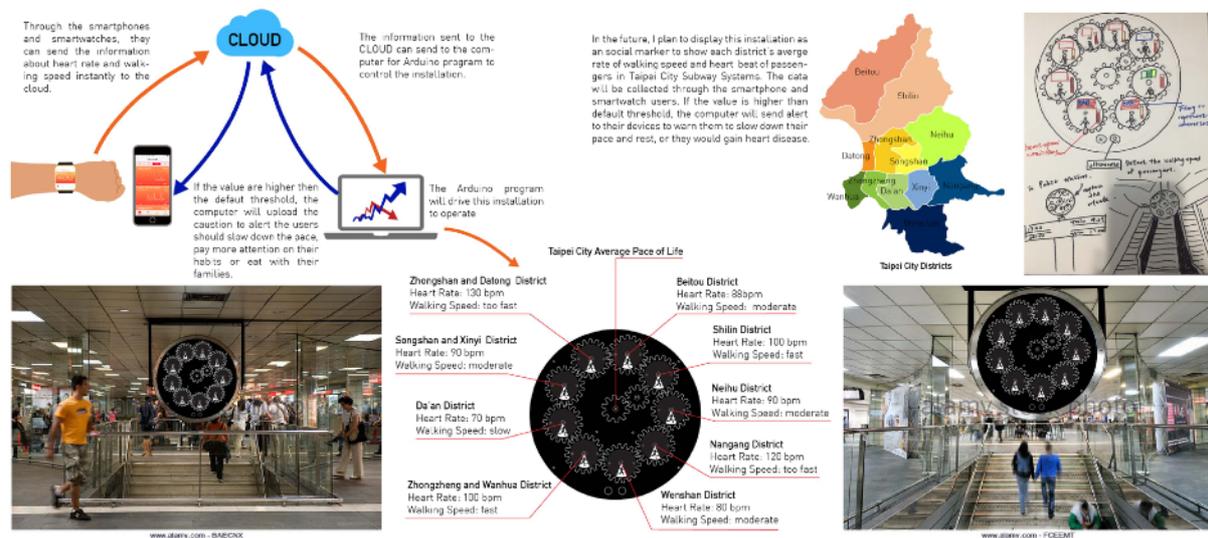


Figure 9. The figure shows the improvement plans of this installation through utilizing smartphone and smart watch devices. In the future, it can be displayed in transportation systems around in different districts around Taipei City displaying real time heart rate and walking speed. Moreover, it can instantly send the alerts to user’s devices to remind them if their pace of life is too fast; thus, they should slow down their pace and take a rest.

In order for this installation to become a real-time displayed in public transportation systems alerting people’s pace of life, real time pedestrians walking pace data must be sent to the cloud and back into the Arduino system to trigger the motor in the public installation. Second, data must be accumulated for each district and taken into average to display the pace and health of each area. Third, by utilizing the smartphones or smart watches data of user’s heart rate, walking speed and calories on the Cloud, Arduino can instantly analyze whether those data is higher than threshold or not. If data is higher than default, the computer will upload alert notification to user’s smartphone or watches to warn them that they should slow down their pace of life. For example, if a pedestrian receives such data, they can slow down their pace and take a break by drinking a cup of coffee, sending messages to family members or

taking a rest. Finally, there is also a possibility that the long-term goal maybe to monitor stress levels suggesting them time for vacation. So this installation can be displayed in the transportation station such as train station or subway system—where people walked the fastest and it maybe the best place to display this project.

## **CONCLUSION**

In sum, this world is kind of kidnapped by the capitalism, and its biggest restrain to people's lifestyle. Thus, this restraint force people to accelerate their pace of life in order to earn money. However, it has caused adverse effects—coronary heart disease, unhealthy life, stress. Not many people realize this fact, so this installation hopes to make aware and help them gain work-life balance. The station is a place where one can show people's behavior—being a place where people must be on time to run business, rushing in and out for work or school, and people being constantly indifferent to others. As a result, placing this interactive installation in the station, it can allow passengers to be aware of Work-Life Balance to pursuing happiness and reduce heart disease.

Thus, as Mark Feldman, vice president of marketing at Seven Step RPO said, "Whether you take a walk in the park, get a massage or [take] a hot bath, it's important to always set aside an hour a week to do something for yourself" (Shannon Gausepohl, 2016). Although being workaholic at job is important, it should not occupy your whole life. Hence, we should prioritize those activities or hobbies that made one happy. If people can do hobbies, it will not only bring more happiness but also slow down one's fast of life and relieve one's stress. After all, there is no reason we are going to follow the tracks of others as capitalism has told us, we are supposed to live the way we want to, not the way the economy wants us to.

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