

Body part circumference shape measurement system

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problem/question

Current situation



- Time consuming
- It burden the instructors

Improve the service



- Automate measurement process by the machine
- make easy to measure
 - save their time

Show the result and store data

1. the thigh length [cm]
2. the hip length [cm]
3. the waist length [cm]
4. the belly length [cm]

finding

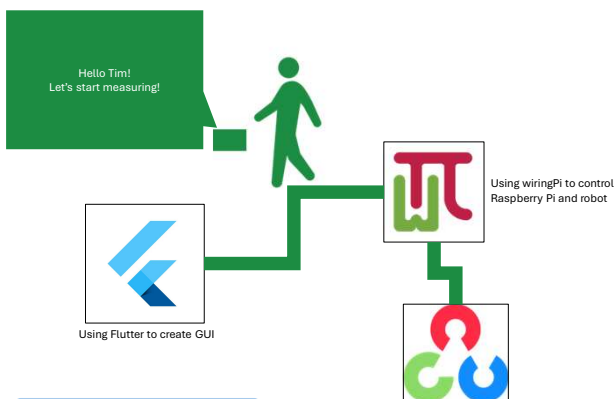
GUI program



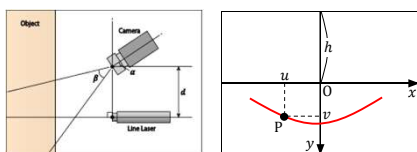
This GUI program is not only showing the interface, but it also connect directly to the program that works the robot

framework/project design

1. touch the display to start measuring



2. measure their body



1. Move the laser light and camera unit to appropriate height
2. Turn on the laser light
3. Recognize the light using OpenCV

The expected results



1. To use the GUI, the user can control the measuring robot
2. It allow use to save their time
3. The instructor will be need not to care the client

interpretation and conclusion, discussion

The measuring system is measuring the body length like thigh, hip, waist, belly to use laser light. And recognize the length using camera and process the OpenCV. The robot is worked by wiringPi programs. This system had created already, but it didn't have user friendly interface to control it. It only control from CLI. So, we rewrote the main programs to connect to the Flutter which generate GUI. Despite our progress, certain challenges remain, and we are committed to ongoing refinements to enhance the overall quality and performance of our measuring system.