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Chapter Six

Testing and Evaluating

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6.1 Introduction

This chapter provides experimental result and some recommendations from the work learned from this project. In this chapter we are listing some goals hope to be accomplished or at least under attention.

6.2 Experimental Result

We made some experiments on parts of our project and these are some of results:

1. By interrering the object to the infeed conveyer by push object by the pneumatic piston and translate the object to the checkweigher.
2. When the object passing on the checkweigher loaded on the load cell, the load cell reads its weight and sends this read to the PLC, then the PLC display the weight of the object on the HMI.
3. Then the PLC compare the read if it's equal the specified weight or not, if the reads value equal the specified weight the PLC send command to reject object to the right side otherwise send command to reject object to the left side .

6.3 Recommendations

1. The load cell should be put in isolated region so is not affected for noising.
2. The load cell is more sensitive so you should be more careful when installed it.
3. In this machine you should do the maintenance every 6 months to extend the life of the machine.

6.4 Future Work

The following tasks are suggested as future work:

1. The project can be improved for more accuracy and can it used for weighing very small weight and very large weight.
2. Improving the project for used in variable introduction line, not just in packaging machine.
3. Improving the project by using different type of reject better than the arm reject for more reliability.
4. Improving the project so that becomes more diagnostic.

6.5 Project Cost

Description	Price
PLC.....	1200 ₪
PLC Module	850 ₪
PLC Power Supply	200 ₪
HMI	1450 ₪
USB Cable for PLC	100 ₪
Pneumatic Valve	200 ₪
Electrical Works	600 ₪
Mechanical Design	800 ₪
Mechanical Works	800 ₪
Motors	300 ₪
Load Cell	200 ₪
Electrical Board	400 ₪
Total Price	7100 ₪

Table 6.1: Project Cost