LAMPIRAN I

POLITEKNIK MALAYSIA

BORANG INVENTORI PROJEK PELAJAR

PERKARA	MAKLUMAT *INFORMATION*
Program *Program*	DTK5A
Jabatan *Department*	Jabatan Kejuruteraan Elektrik
Semester/ Tahun *Semester/ Year*	Semester 5 Jun 2017
Tajuk Projek *Project Title*	Supermarket Trolley
Jenis Projek *Type of Project*	Hardware
Kategori Kluster Penyelidikan *Category/ research Cluster*	Tanda " / " pada yang berkenaan: *Please tick " / " where applicable:* ( ) Sains tulen (*Pure Science*) ( ) Sains gunaan (*Applied Science*) (/) Teknologi dan kejuruteraan (*Technology and Engineering*) ( ) Sains kesihatan dan klinikal (*Clinical and Health Sciences*) ( ) Sains sosial (*Social Sciences*) ( ) Sastera dan sastera ikhtisas (*Arts and Applied Arts*) ( ) Warisan alam dan budaya (*Natural Sciences and National Heritage*) ( ) Teknologi maklumat dan komunikasi (*Information and Communication Technology*)
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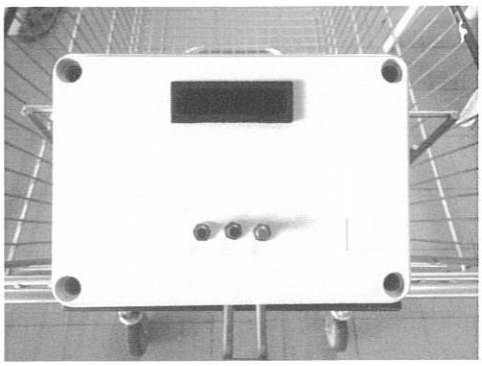
Penyelia Bersama *Co-Supervisor*	1. Name: Puan Norzilah Binti Hussin
Abstrak *Abstract*	Now a day's interest in shopping malls is widely increasing among people. In the present shopping malls, customers find various difficulties. Those difficulties are mentioned below. One third of major shoppers buy groceries on a budget. Most of the times, it is only at the end purchase shoppers come to know that the overall purchase total is greater than their budget. Then they spend much time in searching for their desired products and finally overall shopping process becomes more time consuming too. Due to this, several times shoppers couldn't buy all their desired products and miss out few items. Another major problem faced by users is that they have to wait in long queues for billing. Thus the pro-posed system overcomes all these drawbacks faced by shoppers in shopping malls. Our project is called 'Supermarket Trolley'. This project will be use at the mall or any other needed shopping places. People will use 'Supermarket Trolley' when they want to buy and manage their shopping

	budget. This is because, many people can't budget their shopping and take a long time to queue at the counter, so our 'Supermarket Trolley' that has Barcode Scanner will help them to settle this problem. It will make things easier especially for parents.
Keyword *Keyword* (max 5 word)	Be a smart consumers
Objektif Projek *Project Objectives*	- To help people manage their shopping budget. - To increase the amount of barcode scanner in any supermarket as each 'Supermarket Trolley' has barcode scanner. - To help people manage their time properly.
Skop Projek *Project scope*	Our scope for this project is for people who use trolley to shopping at any supermarket. The item's price that has been scanned by barcode scanner will be saved into the database that we have created. The LCD display will show the price item. We can set the limit for the amount of budget we want to spent in our 'Supermarket Trolley'. After the amount has exceeded the limit, the buzzer will sound on as an alert for the limit. When button reset is pressed, the database will be cleared. PIC atmega328p function as controller for other device, because we put a program in the pic. PIC max232 is a seriel interface for the barcode scanner
IP No	
Dapatan *Finding* *(500 words max)*	The Supermarket Trolley help shopper out there to go buy their goods and item. Unlike normal trolley that can only carry item, Supermarket Trolley can scan and detect the price item. Moreover, it has button that can set the limit price of shopping in case not enough budget.

	We used barcode scanner for scanning the item price. The barcode scanner we used are 9 pin seriel interface. Next, we use LCD display 16 x 2 to display the price. The max232 used as the barcode scanner seriel interface. Then, battery 12V for the power supply and also buzzer for the alert sound. Finally, we burn the program into the microcontroller Atmega328. The completed circuit are then being modified to the shopping trolley.
Cadangan untuk kerja-kerja akan datang *Suggestion for future work (500words)*	- Increase the price limit to easy the consumers while shopping. - Add a printer over the trolley to easy the worker to make bill calculation.
Gambar berkaitan projek *Picture related to project* (700kb)	 *Figure 1* *Figure 2*
Rating/Level	Jabatan/ ~~Politeknik/ Kebangsaan/ Antarabangsa~~ *Departments / ~~Institutes / National / International~~*

* *Borang ini perlu diisi oleh pelajar dan dihantar kepada penyelia/ penyelaras projek dalam bentuk hardcopy dan softcopy (borang LAMPIRAN J dan gambar hasil projek dalam format jpeg/bitmap) bersama laporan akhir dan hasil projek.*