



BORANG INVENTORI PROJEK PELAJAR

PERKARA	MAKLUMAT INFORMATION
Program <i>Program</i>	DET
Jabatan <i>Department</i>	KEJURUTERAAN ELEKTRIK
Semester/ Tahun <i>Semester/ Year</i>	LIMA
Tajuk Projek <i>Project Title</i>	WIRELESS CONTROL OF ROBOTIC HAND FOR REHABILITATION FINE MOTOR EXERCISE
Jenis Projek <i>Type of Project</i>	INOVASI
Kategori Kluster Penyelidikan <i>Category/ research Cluster</i>	TEKNOLOGI DAN KEJURUTERAAN
Ahli Kumpulan <i>Group member</i>	1. MUHAMMAD AZRUL BIN SHAMSUL BAHARI 990131-08-5987 2. AHMAD SYAZWAN BIN AZIZAN @ AZIZI 990922-09-5073 3. 4. 5.
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Penyelia Bersama <i>Co-Supervisor</i>	
Abstrak <i>Abstract</i>	The recovery of hand function is one of the most challenging topics in stroke rehabilitation. Although the robot-assisted therapy has got some good results in the latest decades, the development of hand rehabilitation robotics is left behind. Existing reviews of hand rehabilitation robotics focus either on the mechanical design on designers' view or on the training paradigms on the clinicians' view, while these two parts are interconnected and both important for designers and clinicians. In this project, the focus is for stroke patients that need special tools for their fine motor skill development which integrated mechanical and performance of their fine motor development. This project involves the use of micro controller, flex sensor, servo motor, NRF24L0I, indicator, Arduino nano,

	indicator and Arduino software. The indicator will get the signal from flex sensor to know the strength of the human hand and display the strength at indicator level. It will send the signal to indicator which processor the signal and trigger from robotic hand. With this system, the data will be collected from the indicator that measures stroke patient hand strength.
Keyword <i>Keyword</i> (max 5 word)	WIRELESS ROBOTIC HAND
Objektif Projek <i>Project Objectives</i>	The main objective of this project is to design a new method for rehabilitation. More specifically the principle objective of this research are: 1. To design a low-cost robotic hand that can imitate the movement of wearable glove in wireless environment. 2. To design an indicator that can measure the bending performance of wearable glove. 3. To measure the performance of the proposed method in terms of bending performance and wireless effectiveness
Skop Projek <i>Project scope</i>	1. This project is focusing about to rate the strength of finger by using flex sensor 2. The emphasis is to help the stroke patients for faster recovery using this exercise method 3. The main controller is using ARDUINO TO PROGRAMME the flex sensor and indicator 4. This method is suitable for stroke patient that can be their exercise for their hand that lacking of fine motor skills.

IP No		
Dapatan <i>Finding</i> (500 words max)	-RESEARCH -INTERNET -BOOK AND JURNAL	
Cadangan untuk kerja-kerja akan datang <i>Suggestion for future work</i> (500words)	-WIRELESS -ADD SOUND OR SONG	
Gambar berkaitan projek <i>Picture related to project (700kb)</i>		
Rating/Level	JABATAN	

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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.

