

BORANG INVENTORI PROJEK PELAJAR

PERKARA	MAKLUMAT INFORMATION																
Program Program	DET 5C																
Jabatan Department	JABATAN KEJURUTERAAN ELEKTRIK																
Semester/ Tahun Semester/ Year	SEMESTER 5 / 2017																
Tajuk Projek Project Title	AUTOMATIC DRAIN CLEANER																
Jenis Projek Type of Project	HARDWARE AND SOFTWARE																
Kategori Kluster Penyelidikan Category/ research Cluster	Tanda “ / ” pada yang berkenaan: Please tick “ / ” where applicable: <table border="1"> <tbody> <tr> <td>☐</td><td>Sains tulen (<i>Pure Science</i>)</td></tr> <tr> <td>☐</td><td>Sains gunaan (<i>Applied Science</i>)</td></tr> <tr> <td>☒</td><td>Teknologi dan kejuruteraan (<i>Technology and Engineering</i>)</td></tr> <tr> <td>☐</td><td>Sains kesihatan dan klinikal (<i>Clinical and Health Sciences</i>)</td></tr> <tr> <td>☐</td><td>Sains sosial (<i>Social Sciences</i>)</td></tr> <tr> <td>☐</td><td>Sastera dan sastera ikhtisas (<i>Arts and Applied Arts</i>)</td></tr> <tr> <td>☐</td><td>Warisan alam dan budaya (<i>Natural Sciences and National Heritage</i>)</td></tr> <tr> <td>☐</td><td>Teknologi maklumat dan komunikasi (<i>Information and Communication Technology</i>)</td></tr> </tbody> </table>	☐	Sains tulen (<i>Pure Science</i>)	☐	Sains gunaan (<i>Applied Science</i>)	☒	Teknologi dan kejuruteraan (<i>Technology and Engineering</i>)	☐	Sains kesihatan dan klinikal (<i>Clinical and Health Sciences</i>)	☐	Sains sosial (<i>Social Sciences</i>)	☐	Sastera dan sastera ikhtisas (<i>Arts and Applied Arts</i>)	☐	Warisan alam dan budaya (<i>Natural Sciences and National Heritage</i>)	☐	Teknologi maklumat dan komunikasi (<i>Information and Communication Technology</i>)
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Abstrak Abstract	Blockage of drain will cause the growth of bacteria even the mosquito and a sense of smells. People should look for an alternative to prevent this issue happening in daily life. The aim of study is to innovate an Automatic Drain Cleaner. User need to connect the machine to a 12v supply. This project used 2 sensors that is IR reflective sensor and ultrasonic sensor. Function of IR reflective sensor is used to detect the coming of rubbish while ultrasonic sensor is used to measure the height of rubbish that was collected. Moreover, the needed of human energy to clean up the rubbish in drain can be reduced. As a conclusion, this study is achieve its' objectives and giving a positive impact to consumer and community.																

Keyword <i>Keyword</i> (max 5 word)	Innovate drain cleaner to be automatically.
Objektif Projek <i>Project Objectives</i>	1. To innovate an automatic drain cleaner using Arduino and sensor. 2. To using IR reflective sensor to detect rubbish. 3. To using ultrasonic sensor and GSM to detect height of rubbish and sending message.
Skop Projek <i>Project scope</i>	1. This project is only suitable for wide, low water level U shape drains. 2. This project used GSM Modular, IR sensor, Ultrasonic sensor and 12 DC motor. 3. This project only send messages when rubbish in bin was full via GSM Modular.
IP No	
Dapatan <i>Finding</i> (500 words max)	This project help to clean the rubbish in the drain. As a result the percentage of blockage of drain is decrease. It is also help to saving human energy in cleaning the drain because this machine is automatically.
Cadangan untuk kerja-kerja akan datang <i>Suggestion for future work</i> (500words)	1. When the machine fall or damage, it will giving a notification 2. Adding solar panel for recharging battery 3. Can put this model at any shape of drain 4. The machine can move to the rubbish when it is detected the coming of rubbish

Gambar berkaitan projek <i>Picture related to project (700kb)</i>	 <i>Figure 1</i>	 <i>Figure 2</i>
Rating/Level	Jabatan/ Politeknik/ Kebangsaan/ Antarabangsa <i>Departments / Institutes / National / International</i>	

* 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.