**Topic**

The purpose of this project is to overcome unreliable equipment and also to reduce downtime taken during emergency breakdown procedures while improving the programming by automation. This will be done for News Corp Australia and possibly worldwide depending on compatible equipment types.

The Group 7 team (Thank god its pi day) will combine an raspberry pi, 7 inch touchscreen, battery system, develop a durable industrial case and develop user friendly software to make it a simple to use, simple to work with rs232 communications device to transfer Ascii data over the serial device.

**Motivation**

The motivations for the project stems from the ability to make a portable useable IOT device that can be used to improve the programming techniques of a socapel servo motor drive unit at news corporation Australia and to reduce the time taken to program it and to better automate the process, the current process is done manually through an obsolete programming keyboard and a reference book and each data value is currently entered one at a time which over two hundred parameters it takes some time.

**Landscape**

There are other devices out there that are of a similar type such as an Arduino which can also manage RS232 ASCII communications, the main advantage that our project has using a raspberry pi over an Arduino is that the Arduino is dedicated to one particular task, by using a raspberry pi we are able to manage the main function of an RS232 ASCII communications device and can upgrade it to be able to have multiple functions as we need. We can also network the device if we wish to have remote access and programming through a local network. These features give us a advantage over an Arduino when it comes to a future proof device.