ASSESSMENT TASK NOTIFICATION

	SUBJECT: Technology Robotics **YEAR GROUP: 7** **TASK TITLE: Physical Computing - The Bot**	**Student Name** **Submitted To:** **Mr Steven Newman**

Name of Unit:	Technology - Control Technologies –Robotics				
Type of Task:	In Class Project				
Due Date:		Term:	3	Week:	9
Weight:	100%				

OUTCOMES ASSESSED	4.3.1 applies a broad range of contemporary and appropriate tools, materials and techniques with competence in the development of design projects 4.5.1 applies management processes to successfully complete design projects

DESCRIPTION OF ACTIVITIES

Physical Computing- Build a Raspberry Pi Robot

Students will be assessed on their ability to apply computational thinking through basic programing skills to manipulate electronic components in the physical world (Physical Computing)

Part A- Week 4

Coding with Scratch (30%)

Students will create a simple program using MIT's Scratch editor to demonstrate computational thinking skills to simulate movements of the Robot they will build in Part B.

Part B- Week 8

Physical Computing (70%)

- Students will Assemble a Robot using:
  - a two-wheel chassis,
  - DC motors,
  - 9 Volt Battery,
  - breadboard,
  - jumper wires,
  - IC chip,
  - IR sensor,
  - LEDs
  - Raspberry Pi.
- Code the robot using Scratch GPIO7 on the Raspberry Pi to control the electronic components of their assembled Robot (IR sensor, LED flash for go and red for stop, turn DC motors based on IR sensor input).

METHOD OF SUBMISSION	• Task components are worked on and completed during timetabled class time. • The Bot will be built and assessed in class time.

MARKING RUBRIC

PART A

CRITERIA	GRADE
• Student provides clear description of design process by using the scaffold provided. • Student clearly explains each step of the design process using the scaffold provided	A
• Student provides description of design process by using the scaffold provided. • Student gives general reasons for each step of the design process using the scaffold provided	B
• Student provides basic description of design process by using the scaffold provided. • Student gives some reasons for some steps of the design process using the scaffold provided	C
• Student provides limited description of design process but shows some understanding.	D
• Limited attempt with limited recognition of design process.	E

PART B

CRITERIA	GRADE
• Student creates an excellent Website banner that clearly shows personality, traits and character of selected person. • Student displays creativity and good use of elements of design such as colour, line, shape, texture, tone, direction • Student provides .psd file and exports file as .jpg and .png file formats	A
• Student creates a website banner that is suitable person they have chosen. • Student displays creativity and general use of design principles • Student provides .psd file and exports file as .jpg and .png file formats	B
• Student creates a basic Website banner. • Student displays some creativity and some use of design principles • Student provides a file either as .psd or exports file as .jpg or .png file formats	C
• Students creates a limited Website banner • Student displays some creativity and some use of design principles • Student provides a readable file.	D
• Limited attempt.	E

PART C

CRITERIA	GRADE
• Student describes in detail what they did well? • Student describes in detail what they did not do well? • Student describes in detail what they like and dislike about their finished product?	A
• Student describes what they did well? • Student describes what they did not do well? • Student describes what they like and dislike about their finished product?	B
• Student outlines what they did and not do well? • Student outlines what they like and dislike about their finished product?	C
• Student provides very simple attempted evaluation.	D
• Limited attempt	E