MYP Assessment

| ---- | ----- | | Key concept | Communication | | Related concepts | Invention, Adaptation | | Global context | Personal & cultural expression | | Statement of inquiry | People can be adaptable and inventive when seeking a method to communicate between peoples or cultures | | Objectives | Criterion C "Creating the solution", Criterion D "Evaulating" |

Your task

Working in pairs, build and test a programming idea that uses the Microbits.

Your program should utilise at least 3 of the following:

- Buttons and/or touch pins
- Accelerometer and/or gestures
- Music
- Neopixels
- Bluetooth radio

Project suggestions

- Communicator: Use two microbits to facilitate secret/private communication between you and your partner - perhaps a combination of sounds, special LED light patterns, bluetooth, or use movements of the accelerometer and buttons to control what message is sent.
- Security system: Use two Microbits, one as a sensor to detect an intruder (accelerometer or wires on the pins), which then makes a sound, flashes LEDs and/or sends an alert over Bluetooth to a second Microbit.
- Fashion: Make a digital watch, brooch or other accessory that will display the time or a message based.
- Fitness: Count your steps with a DIY fitbit, or use the Microbit to measure the success of completing an obstacle course (such as maintaining balance)
- Music: Create your own music instrument using the Microbit. Perhaps a combination of pins/buttons/a second microbit, angle of the accelerometer could all be used to write up a range of pins to represent the different notes.

Check list

Create a Google Doc for your project plan. Design a cover page that includes your project title and team members. Bold text indicates the headings you should use in your project document.

- **Project proposal**: Describe your project in one or two sentences.
- **Project design**: Create a drawing showing what the physical setup of your project will look like. Label key parts. Make your drawing neat and well presented. Scan your drawing and insert it into your project plan.
- **Project plan**: Create a simple table to outline the key steps and resources you anticipate requiring to build your project.

Task	**Time required**	**Resources/equipment required**	**Who will complete**

Task	Time required	Resources/equipment required	Who will complete
Create new project plan			
Project drawing			
Create this task plan			
(other tasks as decided by your team...)			
(other tasks as decided by your team...)			
(other tasks as decided by your team...)			

- Build your project, following your task plan
- **Project functionality:** Does your project work as intended? All of it? Sections only? Describe.
- **Changes to design:** Does your final project look different to your design drawing? Describe any changes made and the reasons why.
- **Changes to plan:** Did you have to make changes to your task plan as you built your project? Describe differences and the reasons why (perhaps some parts took more/less time than you expected?)
- **Demonstrate:** Record a 2 minunte video to explain and demonstrate your final project. Upload your video and insert the link into your project plan.
- **Outline success:** Did you succeed in building the project you described in your project idea at the start of this project plan? Describe what you succeeded in, and what you did not succeed at.
- **Possible improvements:** If you built this project again, how would you improve the project?

Standards

You will be assessed against MYP Year 1 Digital Design Criteria C and D as follows.

Criterion C: Creating the solution

1C	Time and resource planning	Technical skills	Functionality and presentation	Changes justified
1-2		demonstrates **minimal** technical skills when making the solution	creates the solution, which functions poorly and is presented in an incomplete form	
3-4	**lists the main steps** in a plan that contains some details, resulting in peers having difficulty following the plan to create the solution	demonstrates **satisfactory** technical skills when making the solution	creates the solution, which **partially functions** and is adequately	

1C	Time and resource planning	Technical skills	Functionality and presentation	Changes justified
presented	**states one change** made to the chosen design **or** plan when making the solution			
5-6	lists the steps in a plan, which considers time and resources, resulting in peers being able to follow the plan to create the solution	demonstrates **competent** technical skills when making the solution	creates the solution, which **functions as intended** and is presented appropriately	states one change made to the chosen design **and** plan when making the solution
7-8	outlines a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution	demonstrates excellent technical skills when making the solution	follows the plan to create the solution, which functions as intended and is presented appropriately	lists the changes made to the chosen design and plan when making the solution.

Criterion D: Evaluating

1D	Testing methods	Success of the solution	Improvements possible	Impact
1-2	defines a testing method, which is used to measure the success of the solution	states the success of the solution.		
3-4	defines a relevant testing method, which generates data, to measure the success of the solution	states the success of the solution against the design specification based on the results of one relevant test	states one way in which the solution could be improved	states one way in which the solution can impact the client/target audience
5-6	defines relevant testing methods, which generate data, to measure the success of the solution	states the success of the solution against the design specification based on relevant product testing	outlines one way in which the solution could be improved	outlines the impact of the solution on the client/target audience, with guidance
7-8	outlines simple, relevant testing methods, which generate data, to measure the success of the solution	outlines the success of the solution against the design specification based on authentic product testing	outlines how the solution could be improved	outlines the impact of the solution on the client/target audience