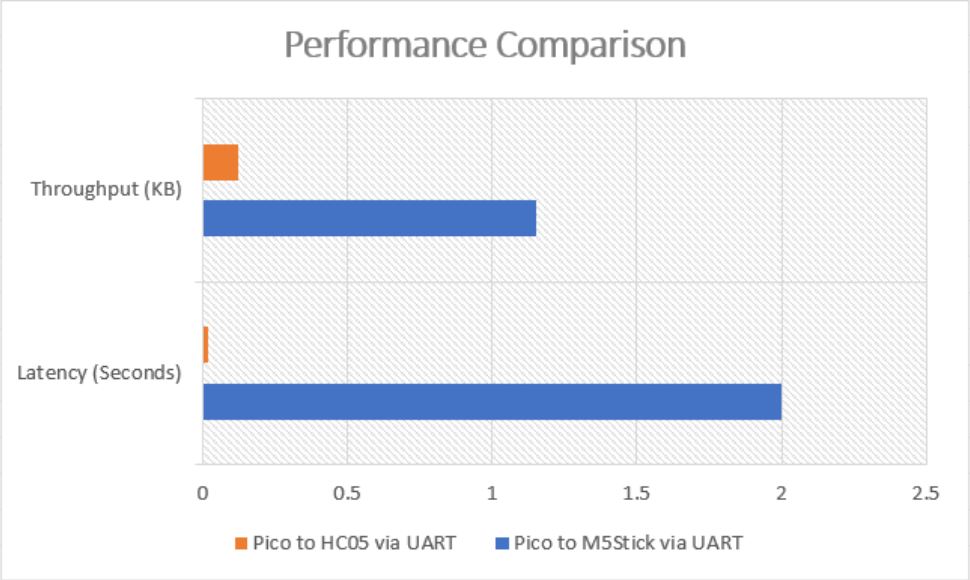
Illustration of the difference in performance

	Latency (Seconds)	Throughput (KB)
Pico to M5Stick via UART	2	1.15
Pico to HC05 via UART	0.02	0.12



How Latency Was Measured

Pico to M5Stick via UART	Latency is measured by the time to send and display one byte of data from Pico to m5stickc.
Pico to HC05 via UART	Functional Requirement Documentation mentioned that the Pico to HC05 via UART was unable to successfully display to Web Application Dashboard, only to Serial Terminal. The measurement of Latency was from the moment a character was captured via the event handler to when it displays the character on the Serial Terminal.

Latency Configuration

Pico to M5Stick via UART	`#define UART_ID uart0` `#define BAUD_RATE 115200` `#define DATA_BITS 8` `#define STOP_BITS 1` `#define PARITY UART_PARITY_NONE`
Pico to HC05 via UART	`#define UART_ID uart0` `#define BAUD_RATE 9600`

	`` #define DATA_BITS 8 #define STOP_BITS 1 #define PARITY UART_PARITY_NONE ```

How Throughout Was Measured

Pico to M5Stick via UART	Throughput is measured by the time it takes to send 65KB data from Pico to serial terminal.
Pico to HC05 via UART	Functional Requirement Documentation mentioned that the Pico to HC05 via UART was unable to successfully display to Web Application Dashboard, only to Serial Terminal. We derived the throughput from the number of bytes send in a second.

Throughout Configuration

Pico to M5Stick via UART	``` #define UART_ID uart0 #define BAUD_RATE 115200 #define DATA_BITS 8 #define STOP_BITS 1 #define PARITY UART_PARITY_NONE ```
Pico to HC05 via UART	``` #define UART_ID uart0 #define BAUD_RATE 9600 #define DATA_BITS 8 #define STOP_BITS 1 #define PARITY UART_PARITY_NONE ```

Large Difference Attribution

The team felt that the comparison of how Latency and throughput were conducted was not fair. The two means of communication did not produce the same outcome as expected. Pico to M5Stick via UART was able to display on the Web App Interface. However, Pico to HC05 via UART was not able to display and was resorted to displaying via the serial terminal.

Furthermore, the different limitation in configuration. The baud rate for M5Stick UART and hc0 HC05 5 UART is different as they both support different kind of baud rates according to the specifications given by the manufacturer.