

HARDWARE SELECTION		
COMPONENTS	NAME	REASON
Microcontroller	STM32F103C8T6	<ul style="list-style-type: none"> - Cost-Effective. - High performance with its ARM Cortex-M3 core, running at up to 8 MHz. - Includes a wide range of peripherals and interfaces (such as I2C, SPI, UART, and USB), enabling easy connection with other components and systems. - Widely use, therefore, there is a large and active community of developers for the STM32 series, providing extensive support, libraries, and tools, which can significantly speed up development time.
I/O Interface	RFID RC522	<ul style="list-style-type: none"> - RFID allows for contactless identification and data transfer, enhancing usability and speed in applications such as access control and asset tracking. - Can be used in a wide range of environments and applications, from low-frequency to high-frequency. - Relatively easy to deploy and scale
	OLED 0.9 INCH SSD1306	<ul style="list-style-type: none"> - Displays good contrast ratios and viewing angles, making them readable in various lighting conditions. - Energy-efficient, especially important for battery-powered applications. - I2C interface requires only two wires for communication, simplifying wiring.
	SPEAKER 0.5 W	<ul style="list-style-type: none"> - Used for making sound to announce users that information has been checked. - Easy to use. - Can be used for a wide range of audio outputs.