# SPECIFICATION

Circuit components

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| --- | --- | --- | --- |
| **NO.** | **COMPONENTS** | **IMAGE** | **COMMENTS** |
| **1.** | **Arduino Mega**  **2560** |  | **Main board in charge of the other components** |
| **2.** | **TCS3200 color sensor** |  | **Identify the color** |
| **3.** | **Five channel**  **grayscale tracking sensor** |  | **Enable the cart to follow the track** |
| **4.** | **HCSR04**  **ultrasonic ranging sensor** |  | **Range measurement** |
| **5.** | **Electrical machinery** |  | **Make the wheels turn and control the speed** |
| **6.** | **Breadboard** |  | **Installed for netter layout of the wires** |
| **7.** | **Dupont thread** |  | **Connect the circuit** |
| **8.** | **Baseboard and the wheels** |  | **Main body of the car** |
| **9.** | **Camera** |  | **Take photos and upload** |

Web part

## Login

If you have already registered an account, enter the registered username and password in the corresponding input box. Then click on 'Submit'. If you do not have an account, please refer to the **registration** instructions below. If you have registered an account but forgot your password, please refer to the **password modification** instructions below

## Register

Click on "register" at the bottom of the login page. Enter the username, password, and phone number to register. One username can only register one account.

## Password modification

Click on "modify" at the bottom of the login page. Enter your registered username, phone number, and new password in the corresponding location. Then click on 'Submit'.

## Visualise records of explorations

Web shows you three basic functions, which are robot exploration video, exploration picture and exploration record.You can click on them and you'll be taken to the details page to use them.There are three main functions, you need to **click the corresponding icon** to use

## Display the real-time Video

Click on real-time Video and it will automatically show you the latest exploration videos. It identifies local files and corresponding data and finds the current robot's exploration video

## Display the real-time images

Click on real-time images and it will automatically show you the latest exploration images.Explore images synchronously and update to the web page by refreshing them every 5s,Therefore, it can be updated in time to explore the images.

## Display the visual exploration

Click on visual exploration, It will automatically show you the latest exploration videos.Visual exploration records that show the treasures identified along the way, the time spent exploring, and the types of treasures.It can view not only the current robot record, but also the record of other robots.