



Kingdoms of Korea



Hwarang Youth Foundation

Hi everyone. Before we start, I want to introduce Hwarang Youth Foundation. In Hwarang, we have an IT Committee where we learn coding first and then incorporate teaching Korean History into our projects to promote the awareness in young students about Korean History. Hwarang is a youth foundation that helps the community and helps young children learn more about Korean Cultures.



Topic of Code

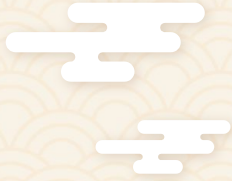
Students will be choosing one out of the 3 kingdoms of Korea (Baekje, Goguryeo, or Silla) to learn about.

There should be 3 pictures of the kingdoms of Korea. One for each kingdom (Baekje, Goguryeo, or Silla). Each picture should be on a cup.

As the student type in which kingdom of Korea they would like to learn about, the hamster would have the AI on top of it and look for the kingdom that they have typed in. Once the AI has detected the correct kingdom, the hamster will use the gripper to grab the cup with the correct picture of the kingdom and go back with it. After it comes back, there should be some information that pops up on the scratch screen.

Supplies Needed

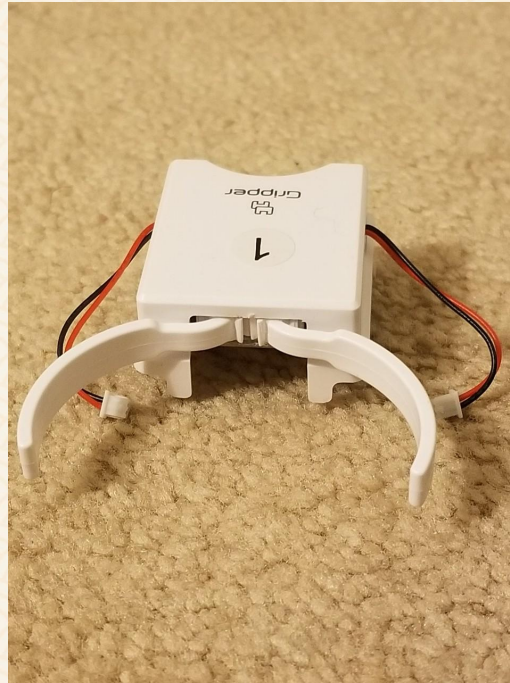
- **1 Hamster**
- **1 Gripper**
- **3 Cups**
- **One picture per kingdom (3)**
- **2 Tiles**
- **AI**



Hamster



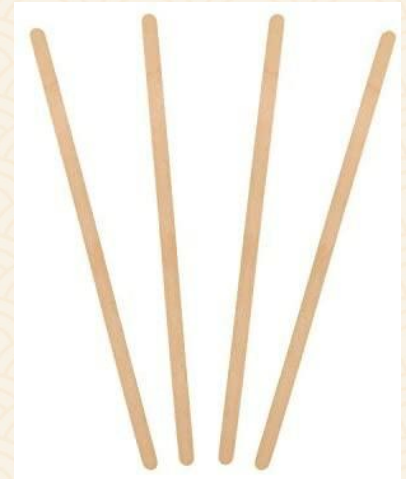
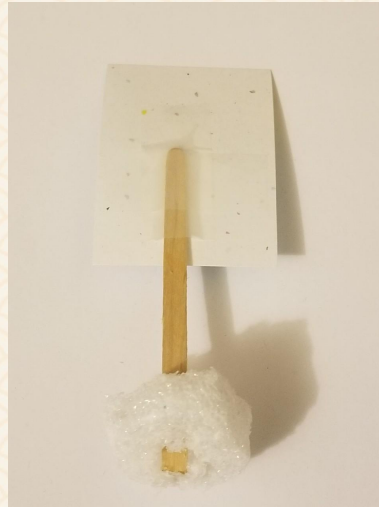
Gripper



3 Cups With Pictures of Kingdoms of Korea

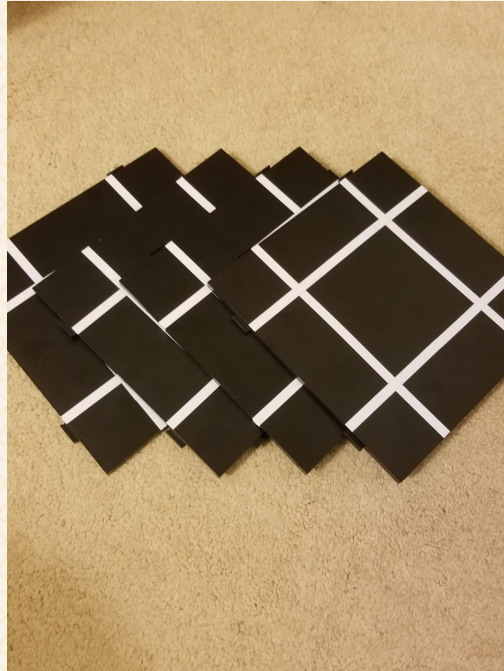


Material Needed To make the Cups With Pictures



For the cups with the pictures of the Kingdoms of Korea, you need to have foam, craft stick, and tape.

2 Tiles



AI



Pictures of the Three Kingdoms of Korea



Starting Code

This code is the starting code. This code starts when the green flag is pressed. It turns the AI camera on and then closes the gripper. It then sets the area of the box the AI detects the color to less than 25. Finally, it asks the students about which Kingdom they want to learn about.



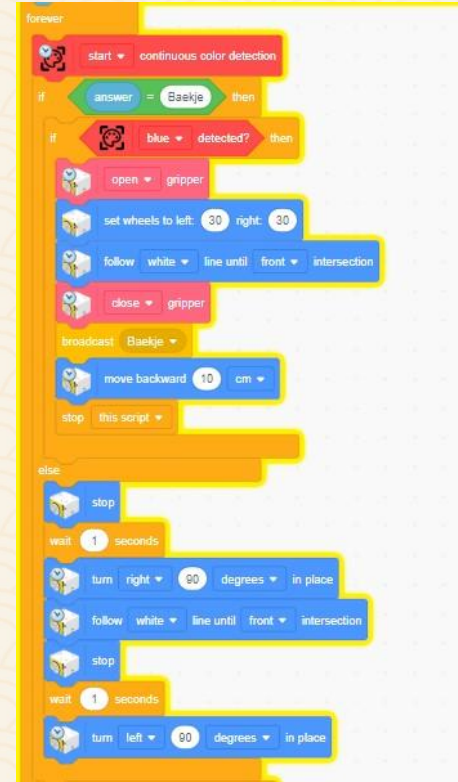
```
when green flag clicked
  turn video on flipped
  close gripper
  set detection condition to area > 25
  detect color once now
  ask Which Kingdom of Korea would you like to learn about? (Goguryeo, Silla, or Baekje) and wait
```

The image shows a Scratch code editor with the following blocks:

- when green flag clicked** (yellow block)
- turn video on flipped** (green block)
- close gripper** (pink block)
- set detection condition to area > 25** (red block)
- detect color once now** (red block)
- ask Which Kingdom of Korea would you like to learn about? (Goguryeo, Silla, or Baekje) and wait** (blue block)

Baekje Code

This code is for when students type in Baekje. The hamster with the gripper and AI will start detecting the color of Baekje (blue). The AI will face towards the direction of the cups and if the correct color of the Kingdom is not in front of the AI, the hamster will turn 90 degrees to the right and then move forward to the next intersection of the tile using the floor sensors. Once the AI detects the correct color of the Kingdom the student chose, the Hamster will go to the cup with the correct color of the Kingdom, close the gripper to get hold of the cup, go backwards a few centimeters, and then broadcast a message "Baekje".



Goguryeo Code

This code is for when students type in Goguryeo. The hamster with the gripper and AI will start detecting the color of Goguryeo (red). The AI will face towards the direction of the cups and if the correct color of the Kingdom is not in front of the AI, the hamster will turn 90 degrees to the right and then move forward to the next intersection of the tile using the floor sensors. Once the AI detects the correct color of the Kingdom the student chose, the Hamster will go to the cup with the correct color of the Kingdom, close the gripper to get hold of the cup, go backwards a few centimeters, and then broadcast a message "Goguryeo".



```
if answer = Goguryeo then
  if red detected? then
    open gripper
    set wheels to left: 30 right: 30
    follow white line until front intersects
    close gripper
    broadcast Goguryeo
    move backward 10 cm
    stop this script
  else
    stop
    wait 1 seconds
    turn right 90 degrees in place
    follow white line until front intersects
    stop
    wait 1 seconds
    turn left 90 degrees in place
```

Silla Code

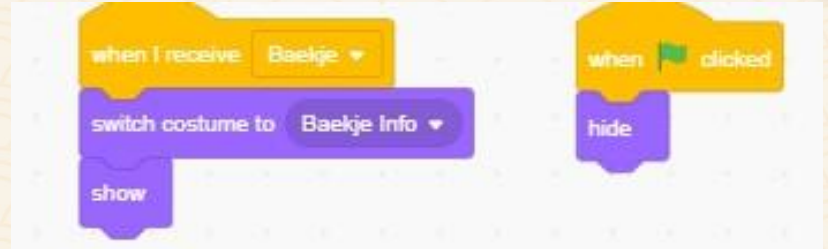
This code is for when students type in Silla. The hamster with the gripper and AI will start detecting the color of Silla (green). The AI will face towards the direction of the cups and if the correct color of the Kingdom is not in front of the AI, the hamster will turn 90 degrees to the right and then move forward to the next intersection of the tile using the floor sensors. Once the AI detects the correct color of the Kingdom the student chose, the Hamster will go to the cup with the correct color of the Kingdom, close the gripper to get hold of the cup, go backwards a few centimeters, and then broadcast a message "Silla".



```
if answer = Silla then
  if green detected? then
    open gripper
    set wheels to left: 30 right: 30
    follow white line until front intersection
    close gripper
    broadcast Silla
    move backward 10 cm
    stop this script
  else
    stop
    wait 1 seconds
    turn right 90 degrees in place
    follow white line until front intersection
    follow white line until front intersection
    stop
    wait 1 seconds
    turn left 90 degrees in place
```

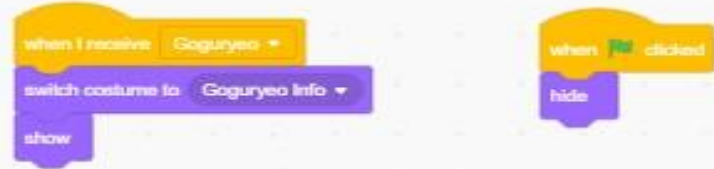
Baekje Information

This code is for the Baekje Information. This will hide the slide picture with the information of Baekje when you start the code. The slide picture with the information of Baekje will only pop back up when this code receives the message "Baekje".



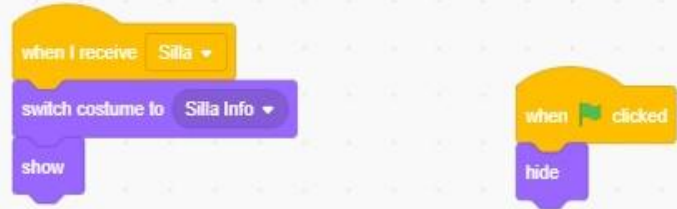
Goguryeo Information Code

This code is for the Goguryeo Information. This will hide the slide picture with the information of Goguryeo when you start the code. The slide picture with the information of Goguryeo will only pop back up when this code receives the message "Goguryeo".



Silla Information Code

This code is for the Silla Information. This will hide the slide picture with the information of Silla when you start the code. The slide picture with the information of Silla will only pop back up when this code receives the message "Silla".



Baekje

Baekje was one of the Three Kingdoms which ruled over ancient Korea from the 1st century BCE to the 7th century CE. Controlling territory in the south-western part of the peninsula the kingdom was in constant rivalry with other two kingdoms of the period: Silla and Goguryeo. The Baekje kingdom was noted for its high culture, many aspects of which it exported to its ally Japan. The kingdom of Baekje was crushed and turned into a Chinese province before eventually being incorporated into the Unified Silla Kingdom. King Onjo, the founder of Baekje, was the third son of King Dongmyeong, so he decided to leave his homeland with his older brother, Biryu, and moved southward to establish his own kingdom.



Goguryeo

Goguryeo was a kingdom which ruled northern Korea during the Three Kingdoms period from the 1st century BCE to 7th century CE. The kingdom flourished in the 5th and 6th century CE and has left a rich cultural heritage best seen in its tomb art and architecture. Goguryeo gave its name to the modern state of Korea. King Jumong was described as the son of the heavens, Jumong was the founding king of Goguryeo, which eventually became the largest dynasty in Korean history. Also known as the Holy King of the East.



Silla


The Silla kingdom ruled south-eastern Korea during the Three Kingdoms period from the 1st century BCE to 7th century C.E. The capital was Gyeongju with a centralised government and hierarchical system of social ranks. The prosperity of Silla is evident in the magnificent gold crowns which are among the most prized art objects of ancient South-East Asia. An alliance with the Tang Dynasty of China permitted Silla to eventually conquer the whole of the Korean peninsula in 668 C.E, which is then ruled for the next three centuries as the Unified Silla Kingdom. Bak Hyeokgeose Geoseogan was the mythical founder of the dynasty. It has been said that King Hyeokgeose was born from an egg that was laid by a white horse that came down from heaven.





Pictures for the Information of Three Kingdoms

You can screenshot the three slides above this slide to use for the Three Kingdoms of Korea Information slide picture at the end of the code.





Video Example

