

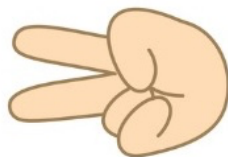
## Teach a machine to play Scissors, Paper, Rock

Open <https://teachablemachine.withgoogle.com>

- Click **Get Started**, **Image Project**, **Standard image model**

*Gather samples (You can close the how-to videos - **click on the X**)*

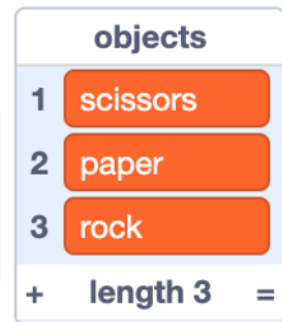
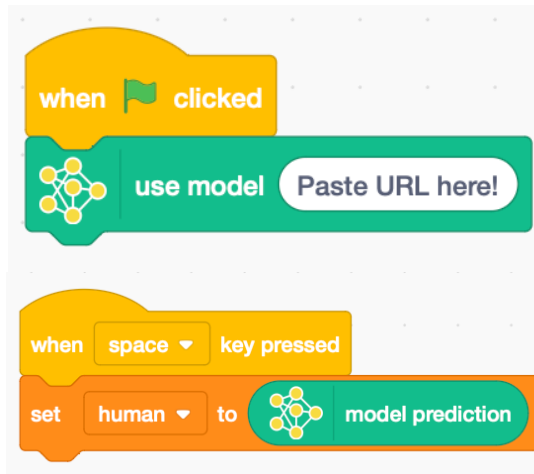
- Rename 'Class 1'. Click on the name and call it **scissors**.
- Rename 'Class 2' to **paper**.
- Click **Add Class**, and call it **rock**.
- On **scissors** click on **Webcam**  
Give the computer permission to use the camera - Allow / OK.
- **Scissors**: Make a scissors sign with your hand in front of the camera, filling the image. Press **Hold to record** about 1000 images, moving your hand around a bit.
- **Paper**: Now hold your hand up flat, "talk to the hand" style. Press **Hold to record** on **paper**, and record a similar number of images. Remember to move around.
- **Rock**: Make a fist to the camera, and press **Hold to record** on **rock**. Record a similar number of images, moving around.
- Click **Train Model** - a progress bar shows you how long it takes.
- In the preview panel, test that it recognises scissors, paper, and rock.



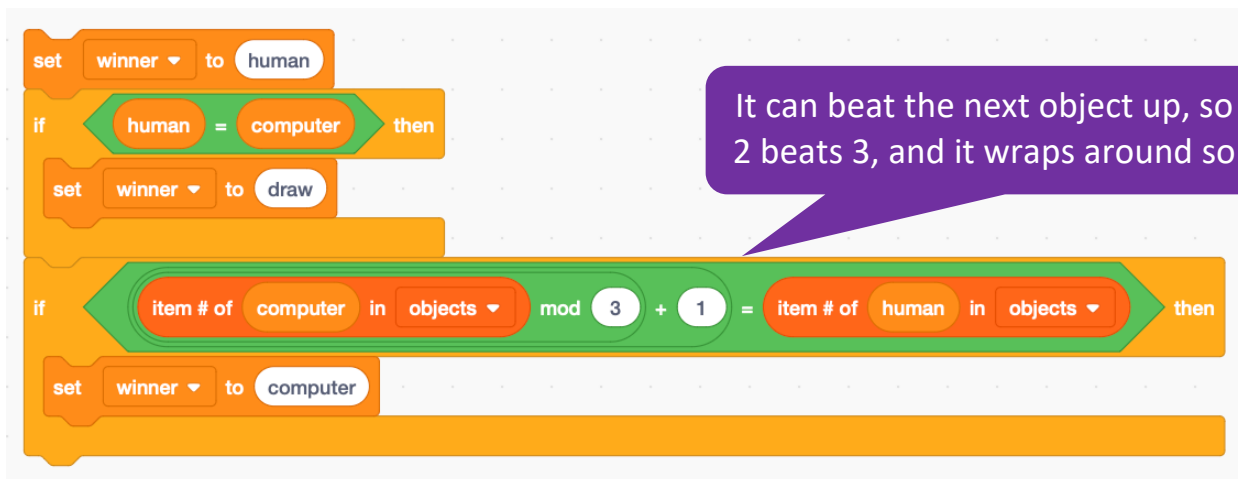
- When you're happy it works, Click on **Export Model** then **Upload my model**
- When it's finished, copy the sharable link using the copy button next to it.
- Paste the link into a new tab and bookmark it for luck!

Restart Chrome and open: <https://playground.raise.mit.edu/main/>

- Delete the sprite.
- Add extension: **Teachable Machine** and allow it to use the camera.
- Add code to **use the model**, and paste in (control v) the link copied above.
- Click the **green flag** to run it.
- Create variables for **human** and **computer**.
- Add code to recognise **human** input when you press the space key.
- **Make a list of objects**, and add **scissors**, **paper**, **rock**.
- Add the **computer** choice, picking one at random.



- Create a variable for the **winner**.
- Add code to decide who wins, or if it's a draw.



Your code isn't saved to Scratch. **Save it on a USB drive.**