

Machine Learning For Kids :: Teachers notes

Worksheet	Emotions
Activity	Make a phone in 'Scratch' that can only be unlocked only if it recognises the entitled user.
Objective	Teach the computer to recognise facial expressions <ul style="list-style-type: none">• Learn to train your computers to recognise emotional tone• Learn how supervised learning builds systems can deal with unexpected inputs
Difficulty level	Beginner
Time estimate	45 minutes
Summary	Students will train a machine learning model to recognise facial expressions by first clicking their pictures with different expressions through the computer's webcam and upload it on 'Scratch'. The machine will soon start to react to picture based on the emotions it was exposed to.
Topics	sentiment analysis, supervised learning

Setup

Each student will need:

Print-outs	<ul style="list-style-type: none">▪ Project worksheet (downloaded from https://happymongo.com/MIKids/worksheets.jsp)▪ Blocks in Scratch scripts are colour-coded, so printing in colour will make it easier for students to relate
Access	Username and password for happymongo.com/MIKids/

Guide

Tips	<ul style="list-style-type: none">▪ Younger students may get carried away when feeding in insults to train the machine learning model. It may be helpful to set boundaries for what language is appropriate.▪ Time management is important for this project. Students often lose track of time while drawing and don't leave enough time for training or coding▪ The worksheet screenshots are based on Scratch 3. Hence we recommend that students use 'Scratch 3'. Using 'Scratch 2' may make it harder for students to find some blocks.▪ Student's identity would remain safe as they will be using a secure site and will be stored only till the project is active▪ Recommend to seek parental permission before running this activity▪ "https://happymongo.com/MIKids/" is a long URL. So we recommend you to set up a bookmark for easy access
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