

Machine Learning For Kids :: Teachers notes	
Worksheet	Giftbox
Activity	Make a giftbox in 'Scratch' that can only be unlocked if it recognises the entitled user
Objective	Teach the computer to identify a human face <ul style="list-style-type: none"> • Learn how to train computers to identify users based on their appearance • Learn how facial recognition can be used for authentication
Difficulty level	Beginner
Time estimate	1 hour
Summary	Students will train a machine learning model to identify their particular faces. The users will first click their pictures through the computer's webcam and upload it on 'Scratch'. This would enable their personal phones to unlock only if it recognises the entitled users.
Topics	facial recognition, image classification, supervised learning
Setup	
Each student will need:	
Print-outs	<ul style="list-style-type: none"> ▪ Project worksheet (downloaded from https://happymongo.com/MLKids/worksheets.jsp) ▪ Blocks in Scratch scripts are colour-coded, so printing in colour will make it easier for students
Technology	Web-cam
Access	Username and password for happymongo.com/MLKids/
Guide	
Tips	<ul style="list-style-type: none"> ▪ Students identity would remain safe as they will be using a secure site ▪ Need to obtain parental permission before running this activity ▪ "https://happymongo.com/MLKids/" is a long URL. So we recommend you to set up a bookmark for easy access