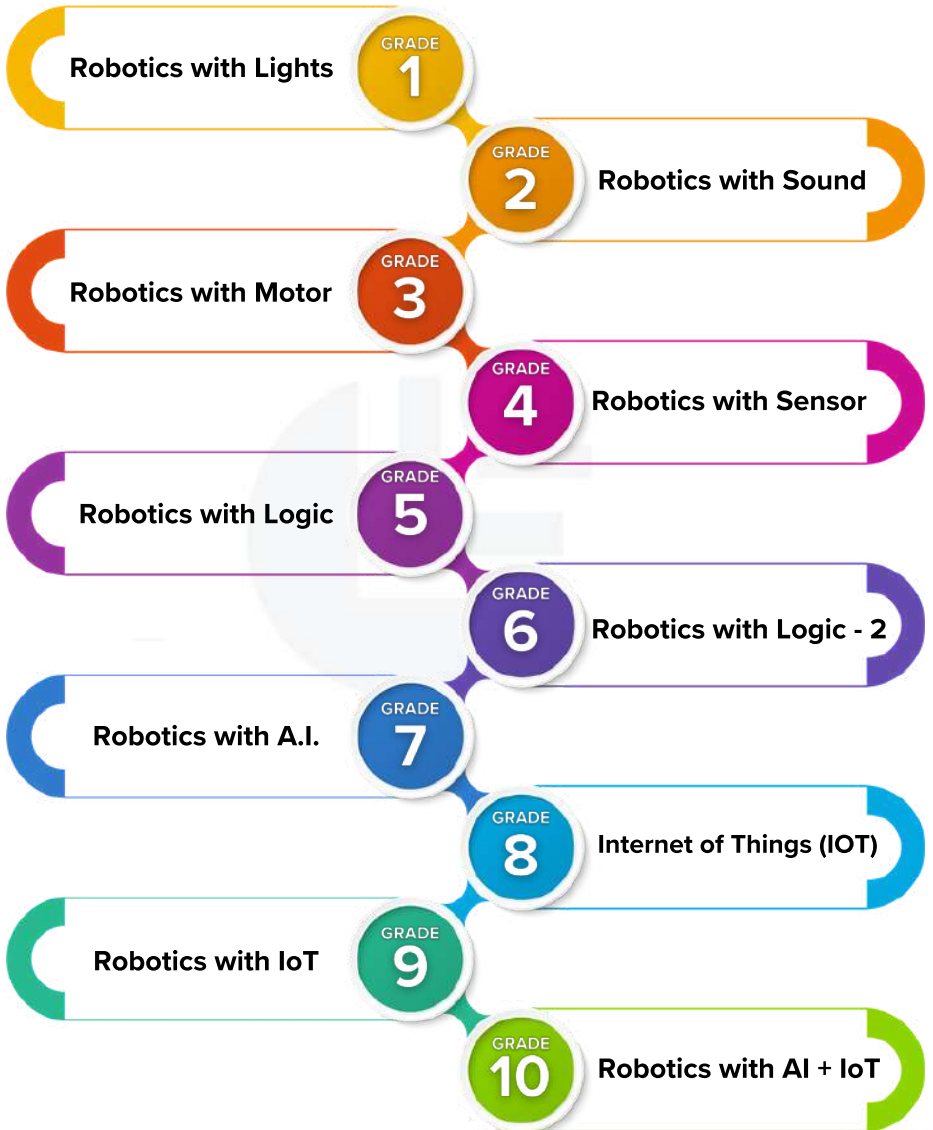




Futuristic School

**Robotics, Coding & AI
Curriculum**

Grade-Wise





Grade 1

Robotics Kit



Power Blox x1



Button Blox x1



Lamp Blox x1



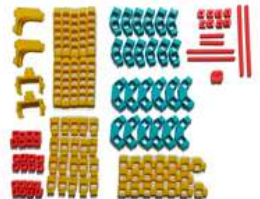
9v Battery x1



Battery Wire x1



Wire-Tap Blox Pair x1

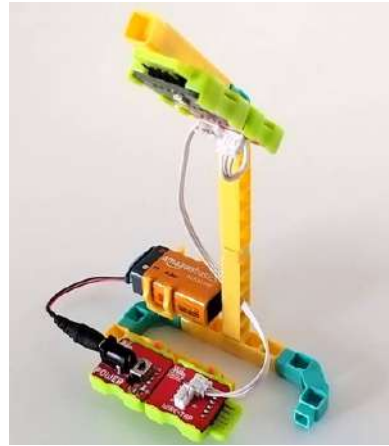


Witbrix

Grade

1

Curriculum



1

Introduction

Welcome to Robotics



5

Hanging Lantern

in depth Electronics

2

Hand Held Torch

in depth Electronics

6

Hoop Ball Game

understanding Mechanics

3

See Saw

understanding Mechanics

7

Manual Swing

understanding Mechanics

4

Hand Cranked Pulley

8

Ball Kicker Stand

understanding Mechanics

Grade

1

Projects



9

**Lamp Post
Street Light**

15

**Secret Message
Sender**

10

**Checkpoint
Assessment**



16

Rolling Shutter
understanding Mechanics

11

Spinning Top
understanding Mechanics

17

Rubbered Power Car
understanding Mechanics

12

Simple Table Lamp
understanding Mechanics

18

Techfest



13

PullString Top
understanding Mechanics

19

Assessment
Test Yourself

14

**Rubberband
Powered Fan**

20

Certification
Get Certified



1000+ More Projects



Grade 2

Robotics Kit



Power Blox x 1



9V Battery x 1



Wire-Tap Blox Pair x 1



Buzz Blox x 1



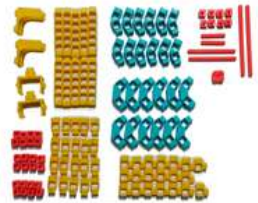
Battery Wire x 1



Lamp Blox x 1



Dark Blox x 1

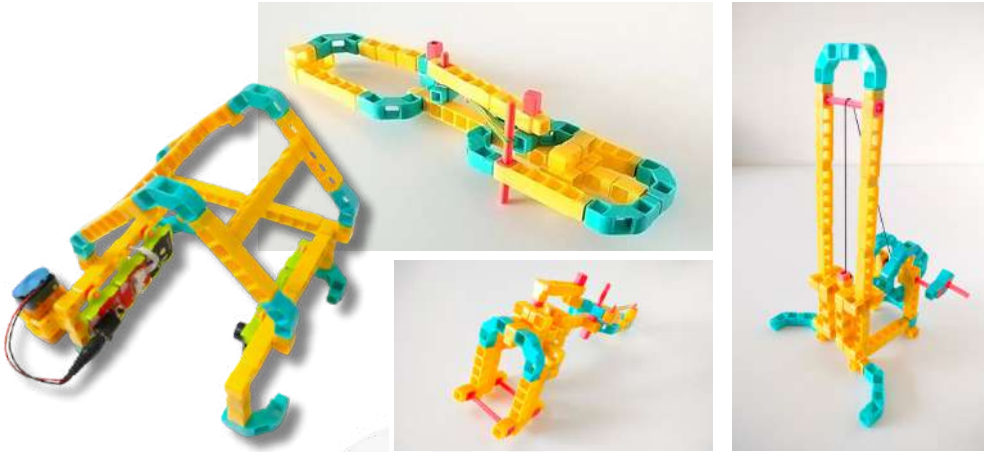


Witbrix

Grade

2

Curriculum



1

Introduction

Welcome to Robotics



5

Launching Trebuchet

understanding Mechanics

2

Pulley Based Crane

understanding Mechanics

6

Water Tank Alarm

Using Electronics

3

Cranked Elevator

understanding Mechanics

7

Railway Barrier

understanding Mechanics

4

Alarm System

Automatic Intrusion A.S.

8

Power Hammer

understanding Mechanics



Grade **2** Projects

9

Powered Sled
understanding Mechanics

15

Finger Push Gripper
understanding Mechanics

10

Checkpoint
Assessment 

16

Parallel Gripper
understanding Mechanics

11

Finger Pull Gripper
understanding Mechanics

17

Preparation
For Tech Fest

12

Theft Alarm
Using Electronics

18

Techfest



13

Ball Shooter
understanding Mechanics

19

Assessment
Test Yourself

14

Smart Table Lamp
in depth Electronics

20

Certification
Get Certified



1000+ More Projects

Grade 3

Robotics Kit



Power Blox x 1



9v Alkaline Battery x 1



Wire-Tap Blox Pair x 1



Button Blox x 1



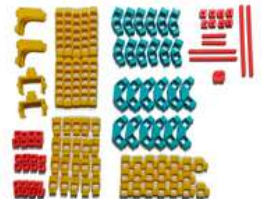
Battery Wire x 1



Lamp Blox x 1



Motor + Driver Blox x 1



Witbricks



1

Introduction

Welcome to Robotics



5

Snail Robot

Motorised

2

Motorised See Saw

Motorised Mechanism

6

Johnny Robot

Johnny Walker Robot

3

Railway Barrier

Motorised Railway Barrier

7

Foldable Lamp

Foldable Table Lamp

4

Long Robot Claw

2 Finger Long Robot Claw

8

Ball Kick Stand

Motorised Mechanism

Grade

3

Projects



9

Windmill

Motorised Mechanism

15

Aeroplane

Motorised Mechanism

10

Checkpoint

Assessment



16

Motorcycle

Motorised Mechanism

11

Cart Push Robot

Motorised Mechanism

17

Preparation For

Tech Fest

12

Merry Go Round

Motorised Mechanism

18

Techfest



13

Helicopter

Motorised Mechanism

19

Assessment

Test Yourself

14

Power Generator

Handheld Power Generator

20

Certification

Get Certified



1000+ More Projects



Grade 4

Robotics Kit



Power Blox x1



Button Blox x1



Invert Blox x1



Dark Blox x1



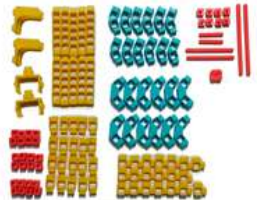
9v Alkaline Battery x1



Battery Wire x1



Motor + Driver Blox x1

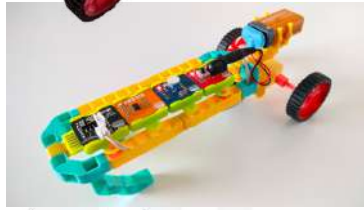
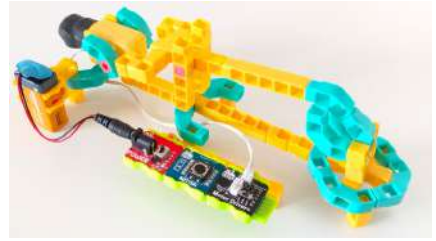
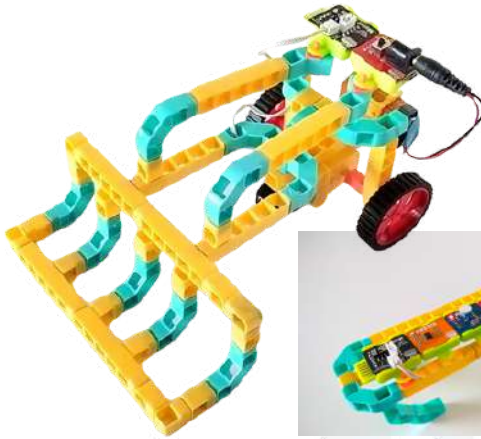


Witbrix

Grade

4

Curriculum



1

Introduction

Welcome to Robotics



5

Overhauling Crane

Motorised Mechanism

2

Bulldozer Robot

Motorised Mechanism

6

Light to Go Robot

in depth Electronics

3

Dark to Go Robot

in depth Electronics

7

Finger Robo Gripper

Mannul Crank Driven

4

Lifting Crane

Winch & Pully based

8

**Motorised Crank
Driven Robot**

Grade

4

Projects



9

Circle Drawing Robot
Hand Held Torch

15

Hammer Mechanism
Manual Mechanical

10

Checkpoint
Assessment



16

Sensor Power Hammer
Motorised

11

Bar Gripper
Motorised

17

Table Top Blender
Mechanism

12

4Leg Monster Bug
Motor Usage

18

Techfest



13

Push Rod Gripper
Sensor Based

19

Assessment
Test Yourself

14

Motorised Door
Dark Activated Motor Door

20

Certification
Get Certified



1000+ More Projects

Grade 5

Robotics Kit



Power Blox x 1



9v Alkaline Battery x 1



Motor + Drive Blox x 2



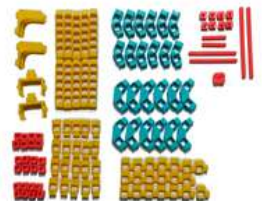
Distance Blox x 1



Battery Wire x 1



Invert Blox x 1

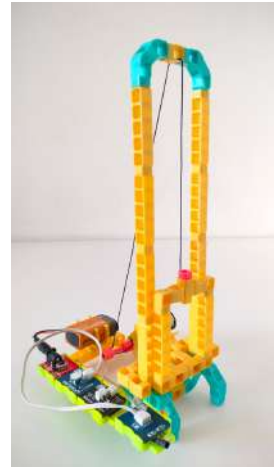


Witbrix

Grade

5

Curriculum



1

Introduction

Welcome to Robotics



5

Black Line Following Robot

2

Racing Car

Motorised Mechanism

6

Obstacle Avoiding Robot

3

Anti Collision Car

in depth Electronics

7

Well Water Pully

Contactless Motorised

4

Biped Rickshaw

in depth Electronics

8

L/R Following Robot

in depth Electronics

Grade

5

Projects



9

**Bidirectional
Sensored Elevator**

15

Smart Hand Blender
Smart & Portable

10

**Checkpoint
Assessment**



16

**White Line
Following Robot**

11

**Hand show to Go/
Reverse Robot**

17

Sensored Table Fan
Sensor Controlled

12

Hand to Seek
in depth Electronics

18

Techfest



13

**Edge Avoiding
Sensored Robo**

19

Assessment
Test Yourself

14

**Adv. Hand
Following Robot**

20

Certification
Get Certified



1000+ More Projects

Grade 6

Robotics Kit



Power Blox x 1



9v Alkaline Battery x 1



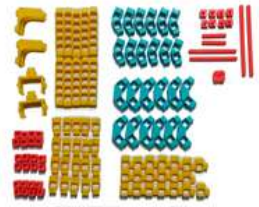
Motor + Drive Blox x 2



Button Blox x 1



Battery Wire x 1



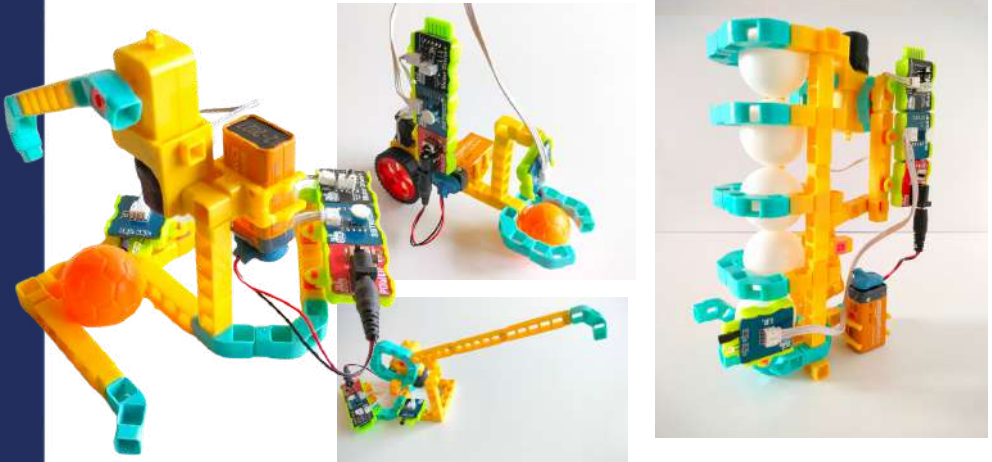
Witbrix



Distance Blox x 1



Invert Blox x 1



1

Introduction

Welcome to Robotics



5

Motorised Ball Pusher

2

Adv. Edge Avoiding Robot

6

Ball Machine Sensor Controlled

3

Reverse Parking Helper

7

Hand Motion Control Door

4

Sensor Sliding Door Motorised

8

Fork Lift Mechanism Sensor Controlled

Grade

6

Projects



9

Retractable Single Bridge

15

Hand Motion Roller Blinds

10

Checkpoint Assessment



16

Room Cleaning Robot
Understand Programming

11

Sensor Railroad Barrier
Sensor Controlled

17

Preparation For
Tech Fest

12

Ball Play Companion
in depth Electronics

18

Techfest



13

Sensor Robotic Crane
Sensor Controlled

19

Assessment
Test Yourself

14

Sensor Motorised Swing

20

Certification
Get Certified



1000+ More Projects

Grade 7

Robotics Kit



Power Blox x 1



Button Blox x 1



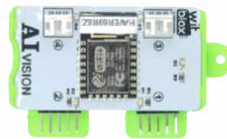
Invert Blox x 1



Buzz Blox x 1



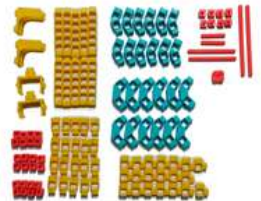
Motor + Driver Blox x 1



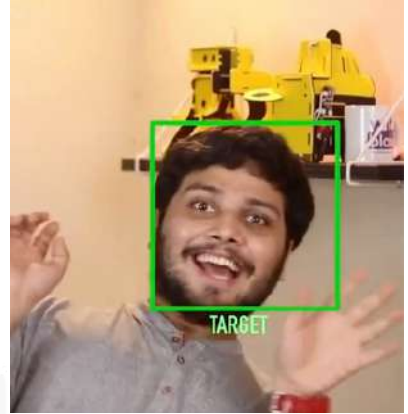
AI Vision Blox x 1



Wire-Tap Blox Pair x 1



Witbrix



1

Introduction

Welcome to Robotics



5

AI Door Unlocking System

2

AI Face Recognition

6

Face Mask Detection Programming

3

Anti Sleep Alarm Programming

7

Fire Detection Alarm Programming

4

AI Intruder Alarm Programming

8

Folding Barrier for Basement Parking

Grade **7** Projects



9

Number Plate Recognition

15

AI Train Detecting Automatic Barrier

10

Checkpoint Assessment



16

Hand Gesture Gate Open / Close System

11

Hand Gesture Light On/Off

17

Preparation For Tech Fest

12

Finger Robot Gripper Programming

18

Techfest



13

AI Object Recognize & Gripper

19

Assessment Test Yourself

14

Railway Barrier Programming

20

Certification Get Certified



1000+ More Projects



Grade 8

Robotics Kit



Distance Blox x 1



Buzz Blox x 1

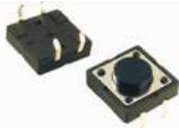


Lamp Blox x 1



Dark Blox x 1

Grade 8



Tact Switch x 2



Red LED x 2



Yellow LED x 2



Green LED x 2



LDR x 1



M - M Wires x 20



M - F Wires x 20



1k Resistor x 3



10k Resistor x 3



100k Resistor x 5



Breadboard x 1



Controller x 1

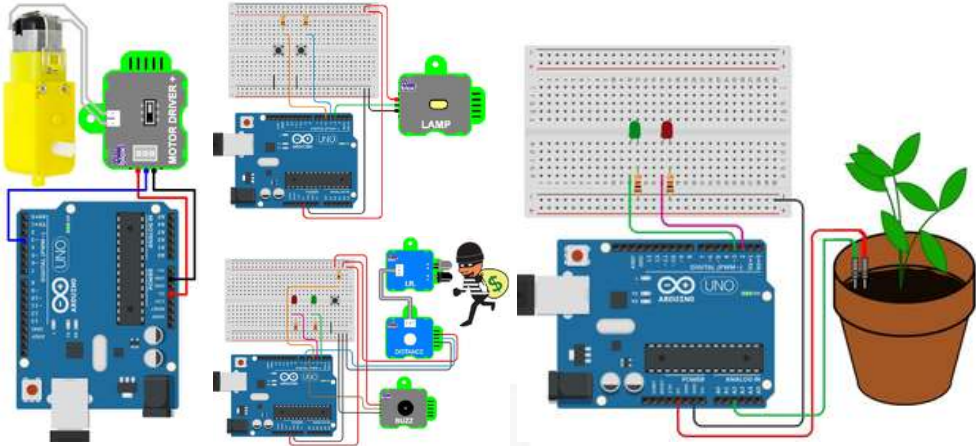


USB Cable

Grade

8

Curriculum



1

Introduction

Welcome to Robotics



5

Toggle & Momentary Inputs

2

BreadBoard Intro

in depth Electronics

6

Buzzer Interface

Programming

3

Concept of Brightness

7

Serial Monitor

Programming

4

Input Interface

Programming

8

Analog Inputs

Programming

Grade

8

Projects



9

Analog Sensor Interface

15

Dim LED Lamp taking Analog Inputs

10

Checkpoint Assessment



16

Soil Moisture Monitoring System

11

1-way Automatic Traffic Light System

17

Preparation For Tech Fest

12

Automatic LED Street Lamp

18

Techfest



13

Automatic Intrusion Alarm System

19

Assessment Test Yourself

14

Dim LED Lamp taking Digital Inputs

20

Certification Get Certified



1000+ More Projects

Grade 9

Robotics Kit



Power Blox x 1



9v Alkaline Battery x 1



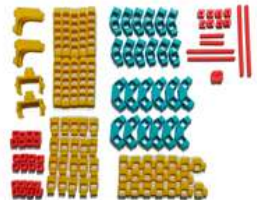
Motor + Drive Blox x 2



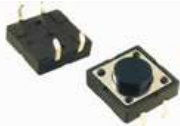
Distance Blox x 1



Battery Wire x 1



Witbrick



Tact Switch x 2



Red LED x 2



Yellow LED x 2



Green LED x 2



LDR x 1



M - M Wires x 20



M - F Wires x 20



1k Resistor x 3



10k Resistor x 3



100k Resistor x 5



Breadboard x 1



Controller x 1

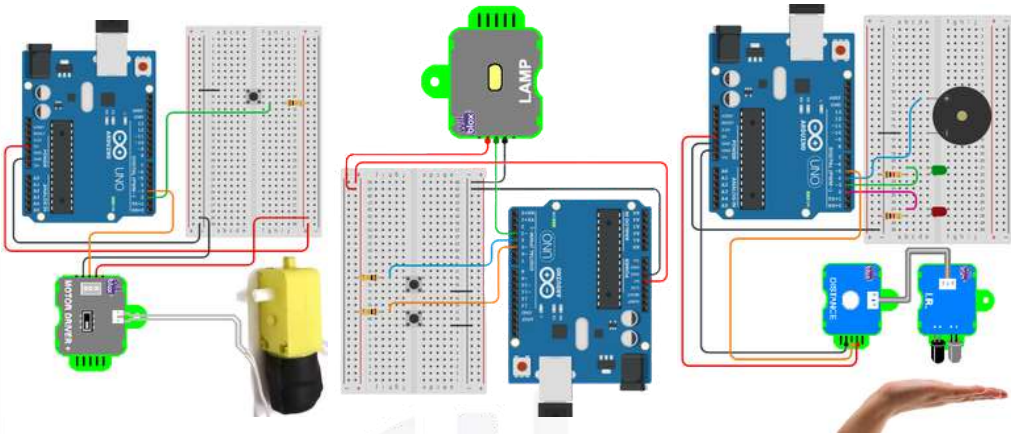


USB Cable

Grade

9

Curriculum



1

Introduction

Welcome to Robotics



5

Toggle Panic Alarm

Programming & Coding

2

LED Blink Patterns

in depth Electronics

6

DC Motor Interface

in depth Electronics

3

Digital Inputs

in depth Electronics

7

Concept Of PWM

Programming & Coding

4

Analog Inputs

Programming & Coding

8

Light intensity to Sound Frequency Converter

Grade

9

Projects



9

Black Line Follower
Programming

15

Obstacle Avoiding
Programming

10

Checkpoint
Assessment



16

Edge Avoiding
Programming

11

Light Intensity Meter
in depth Electronics

17

Preparation
For Tech Fest

12

Contactless Doorbell
Audible & visible for Elders

18

Techfest



13

Wall Follower
Programming

19

Assessment
Test Yourself

14

Motor Speed
Controller

20

Certification
Get Certified



1000+ More Projects

Grade 10

Robotics Kit



Power Blox x1



9v Battery x1



Wire-Tap Blox Pair x1



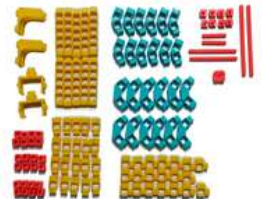
Button Blox x1



Battery Wire x1



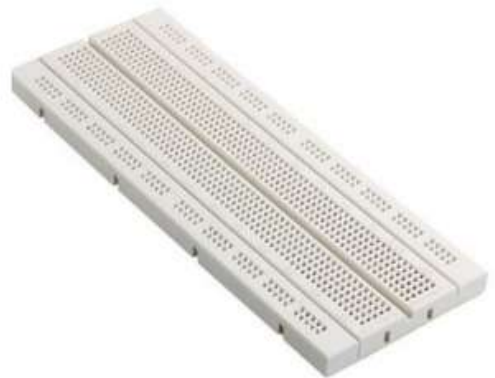
Lamp Blox x1



Witbrix



Controller x 1



Breadboard x 1



USB Cable x 1



M - F Wires x 20

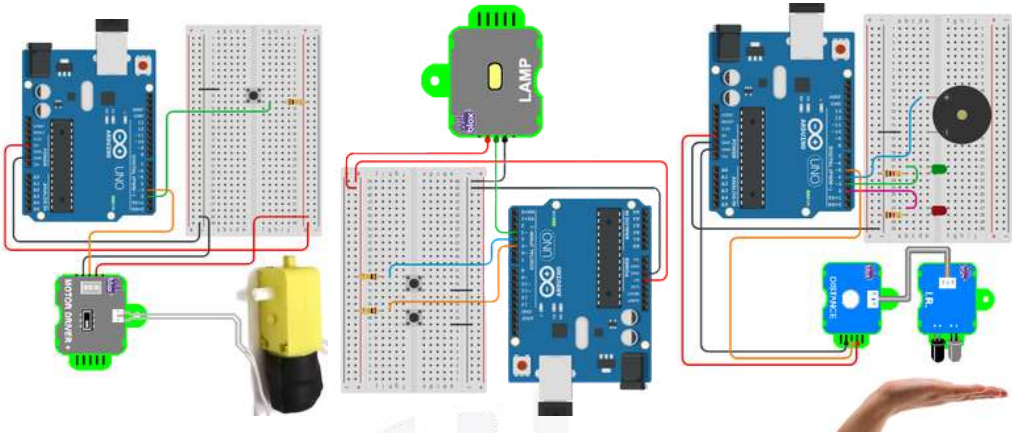


M - M Wires x 20

Grade

10

Curriculum



1

Introduction

Welcome to Robotics



5

AI Gesture Video Volume Control

2

AI Mood detecting Song Player

6

Ai Door opening with notification

3

AI Hand controlled LED Brightness

7

Face Recognition to switch on Lamp & trigger notification

4

AI Classification & wikipedia Opening Page

8

Face Recognition Intruder Alarm & trigger notification

Grade 10 Projects



9

**AI Event Triggered
Tweet Sender**

15

**AI Mouse pointer
Controller**

10

**Checkpoint
Assessment**



16

**AI Youtube Video
Player**

11

**AI Money Counter
Programming & Coding**

17

**Preparation For
Tech Fest**

12

**AI Vistor Counter
Programming & Coding**

18

**Techfest
Tech Fest**



13

**AI Event Triggered
Email Sender**

19

**Assessment
Test Yourself**

14

**AI Sign Language
to Text Convertor**

20

**Certification
Get Certified**



1000+ More Projects

Certification



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