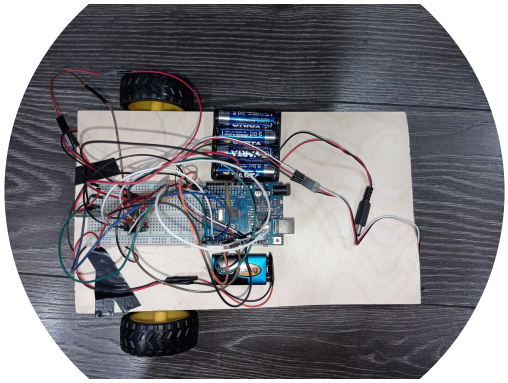
DigiEduHack Solution
Pakistan - Real Life to Student Life Challenge: Pakistan - Real Life to Student Life Challenge 2021

mechathon for future digital education



Schoology -tools to support learning instruction, grading, cowork

We have established our target audience and purpose with the term schoology introduced by UNESCO;Mechaton vehicle, which is our project for K-12 education set to introduce & endavour the mecha-digital world to students of all ages;Vehicle will come with instructions how to build and manage easily.

Team: Metathon

Team members

Selman Tatli, Zubair Mushtaq

Members roles and background

16 years old programmer

Contact details

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Solution Details

Solution description

It is built in simplest way to encourage kids of all ages to construct their own entertaining bluetooth controlled vehicle which can be transformed into a flying vehicle or any other object of motor and digitally controlled object depending on their fantacy and motivation. it is Blutooth RC

Controller software supported with minimum supply.

We use a wooden body to support our sdolution as a body of solution, servo motors and motors to bring mobility and cables, blutooth connection to give connectivity between software and mechanical body.

Solution context

Arduino UNO Codes

```
#include
Servo kol;
int pwma = 3;
int pwmb = 5;
int ain1 = 8;
int ain2 = 9;
int stby = 10;
int bin1 = 11;
int bin2 = 12;
int veri;

void setup() {
pinMode(pwma, OUTPUT);
pinMode(pwmb, OUTPUT);
pinMode(ain1, OUTPUT);
pinMode(ain2, OUTPUT);
pinMode(bin1, OUTPUT);
pinMode(bin2, OUTPUT);
pinMode(stby, OUTPUT);
Serial.begin(9600);
kol.attach(13);
kol.write(150);
analogWrite(pwma, 100);
analogWrite(pwmb, 100);
}

void loop() {
digitalWrite(stby, HIGH);
if(Serial.available())
{
veri = Serial.read();
Serial.println(veri);
}
else if(veri== 'F')
{
up();
}
else if(veri== 'B')
{
down();
}
```

```
else if(veri== 'L')
{
left();
}
else if(veri== 'R')
{
right();
}
else if(veri== 'U')
{
kol.write(80);
}
else if(veri== 'u')
{
kol.write(150);
}
else if(veri== '0')
{
analogWrite(pwma, 0);
analogWrite(pwmb, 0);
}
else if(veri== '1')
{
analogWrite(pwma, 25);
analogWrite(pwmb,25);
}
else if(veri== '2')
{
analogWrite(pwma, 50);
analogWrite(pwmb, 50);
}
else if(veri== '3')
{
analogWrite(pwma, 75);
analogWrite(pwmb, 75);
}
else if(veri== '4')
{
analogWrite(pwma, 100);
analogWrite(pwmb, 100);
}
else if(veri== '5')
{
analogWrite(pwma, 125);
analogWrite(pwmb, 125);
}
else if(veri== '6')
{
analogWrite(pwma, 150);
analogWrite(pwmb, 150);
}
```

```
else if(veri== '7')
{
analogWrite(pwma, 175);
analogWrite(pwmb, 175);
}
else if(veri== '8')
{
analogWrite(pwma, 200);
analogWrite(pwmb, 200);
}
else if(veri== '9')
{
analogWrite(pwma, 225);
analogWrite(pwmb, 225);
}
else if(veri== 'q')
{
analogWrite(pwma, 250);
analogWrite(pwmb, 250);
}
else
{
digitalWrite(ain1, LOW);
digitalWrite(ain2, LOW);
digitalWrite(bin1, LOW);
digitalWrite(bin2, LOW);
}
}
void up()
{
digitalWrite(ain1, HIGH);
digitalWrite(ain2, LOW);
digitalWrite(bin1, HIGH);
digitalWrite(bin2, LOW);
}
void down()
{
digitalWrite(ain1, LOW);
digitalWrite(ain2, HIGH);
digitalWrite(bin1, LOW);
digitalWrite(bin2, HIGH);
}
void left()
{
digitalWrite(ain1, LOW);
digitalWrite(ain2, HIGH);
digitalWrite(bin1, HIGH);
digitalWrite(bin2, LOW);
}
void right()
{
```

```
digitalWrite(ain1, HIGH);
digitalWrite(ain2, LOW);
digitalWrite(bin1, LOW);
digitalWrite(bin2, HIGH);
}
```

Solution target group

K-12 Education Attendants of all ages

Solution impact

It will support and improve creative, physics way of thinking, mechanical and electrcial soft skills combined will drive initiative mental approach in education attendants experiencing the simple way of communicating with simple technology to dream for more complex creations.

Solution tweet text

mechathon for future digital education and real life to student life

Solution innovativeness

To enhance and support K-12 education with a self-confidence of making our own simple machine for the start of future huge projects.

Solution transferability

on this body we can enhance and build more complex projects

Solution sustainability

It is imagination and hardwork that will matter to sustain and develop the structure to more complex ideas

Solution team work

It has been done at home on my own and within short time to get supplied and go underpandemic conditions, would certainly be doing and enjoying to go further with my tea,