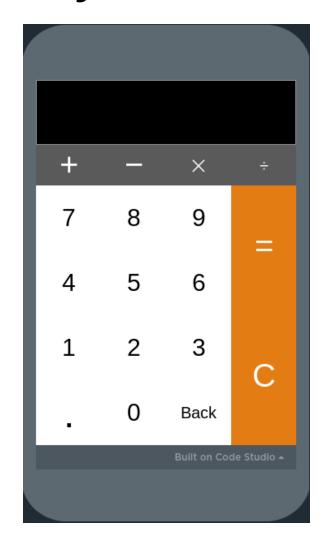
Re-Programmable Joystick Mouse





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Hardware Modification
Level 3
ACTE Region 4

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Narrative

I chose to do this project to prove that code.org can be used for real-world applications. I have learned how to program in javascript. This has benefited me because I now know how to use code.org's app lab.

Software and Hardware used in Project

Computer the project was originally coded on: HP 11A G6 EE Website: Code.org

Copy of Project



Code:

```
//Selector
onEvent("Website", "click", function(event ) {
 open("https://codeprojects.org/m80Yt5y1AmLAL6__6122A4Tmd3RWWonljlxB1Astmkc/index.html");
onEvent("Dice", "click", function(event) {
 setScreen("Game");
onEvent("TwoNUM", "click", function(event) {
 setScreen("Calculator2");
onEvent("ThreeNUM", "click", function(event) {
 setScreen("Calculator3");
onEvent("MultiCal", "click", function(event) {
 setScreen("MultiCalculator");
onEvent("FractionCalculator", "click", function(event) {
 setScreen("FractionCal");
onEvent("MessagingApp", "click", function(event) {
 setScreen("InfoScreen");
onEvent("Next", "click", function(event) {
 setScreen("Selector2");
onEvent("Previous2", "click", function(event) {
 setScreen("Selector");
onEvent("Next2", "click", function(event) {
 setScreen("Selector3");
onEvent("Previous3", "click", function(event) {
 setScreen("Selector2");
});
```

```
onEvent("RNGSEL", "click", function() {
 hideElement("Answer-RNG");
 setScreen("RNG");
});
onEvent("ClassicSel", "click", function() {
 setScreen("Classic");
//Calculator2NUM
hideElement("Answer");
onEvent("+", "click", function(event) {
 showElement("Answer");
 setText("Answer", getNumber("1") + getNumber("2"));
onEvent("-", "click", function(event) {
 showElement("Answer");
 setText("Answer", getNumber("1") - getNumber("2"));
});
onEvent("X", "click", function(event) {
 showElement("Answer");
 setText("Answer", getNumber("1") * getNumber("2"));
});
onEvent("÷", "click", function(event) {
 showElement("Answer");
 setText("Answer", getNumber("1") / getNumber("2"));
onEvent("C", "click", function(event) {
 hideElement("Answer");
 setText("1", "");
 setText("2", "");
onEvent("Back", "click", function(event) {
 setScreen("Selector2");
//Calculator3NUM
hideElement("Answer-3");
onEvent("+-3", "click", function(event) {
 showElement("Answer-3");
 setText("Answer-3", (getNumber("1-3") + getNumber("2-3")) + getNumber("3-3"));
onEvent("--3", "click", function(event) {
 showElement("Answer-3");
 setText("Answer-3", (getNumber("1-3") - getNumber("2-3")) - getNumber("3-3"));
onEvent("X-3", "click", function(event) {
 showElement("Answer-3");
 setText("Answer-3", (getNumber("1-3") * getNumber("2-3")) * getNumber("3-3"));
onEvent("÷-3", "click", function(event) {
 showElement("Answer-3");
 setText("Answer-3", (getNumber("1-3") / getNumber("2-3")) / getNumber("3-3"));
});
onEvent("C-3", "click", function(event) {
hideElement("Answer-3");
 setText("1-3", "");
 setText("2-3", "");
 setText("3-3", "");
});
```

```
onEvent("Back-3", "click", function(event) {
 setScreen("Selector2");
});
//Multiple
var S1;
var S2;
function S2F() {
 if (getChecked("2R1-S") === true) {
 S2 = S1 + getNumber("3-S");
 S3F();
 if (getChecked("2R2-S") === true) {
 S2 = S1 - getNumber("3-S");
 S3F();
 if (getChecked("2R3-S") === true) {
 S2 = S1 * getNumber("3-S");
 S3F();
 if (getChecked("2R4-S") === true) {
 S2 = S1 / getNumber("3-S");
 S3F();
 }
function S3F() {
 if (getChecked("3R1-S") === true) {
  setText("Answer-S", S2 + getNumber("4-S"));
 if (getChecked("3R2-S") === true) {
  setText("Answer-S", S2 - getNumber("4-S"));
 if (getChecked("3R3-S") === true) {
  setText("Answer-S", S2 * getNumber("4-S"));
 if (getChecked("3R4-S") === true) {
  setText("Answer-S", S2 / getNumber("4-S"));
 }
}
onEvent("=-S", "click", function(event) {
 if (getText("1-S") == "ABC") {
  setScreen("MusicPlayer");
 } else {
  if (getText("1-S") == "Random") {
   setScreen("RNG")
  } else {
   setScreen("MultiCalculatorAnswer");
   if (getChecked("1R1-S") === true) {
    S1 = getNumber("1-S") + getNumber("2-S");
    S2F();
    }
   if (getChecked("1R2-S") === true) {
    S1 = getNumber("1-S") - getNumber("2-S");
    S2F();
   if (getChecked("1R3-S") === true) {
    S1 = getNumber("1-S") * getNumber("2-S");
```

```
S2F();
   if (getChecked("1R4-S") === true) {
    S1 = getNumber("1-S") / getNumber("2-S");
    S2F();}
 }
}
});
onEvent("C-S", "click", function(event) {
 setText("1-S", "");
 setText("2-S", "");
 setText("3-S", "");
 setText("4-S", "");
onEvent("Back-S", "click", function(event) {
 setScreen("Selector");
});
onEvent("Back-M", "click", function(event) {
 setScreen("MultiCalculator");
});
//Fractions
hideElement("Answer-F");
onEvent("+-F", "click", function(event) {
 showElement("Answer-F");
 setText("Answer-F", getNumber("1-F") \ / \ getNumber("2-F") \ + \ getNumber("3-F") \ / \ getNumber("4-F"));
onEvent("--F", "click", function(event) {
 showElement("Answer-F");
 setText("Answer-F", getNumber("1-F") / getNumber("2-F") - getNumber("3-F") / getNumber("4-F"));
onEvent("X-F", "click", function(event) {
 showElement("Answer-F");
 setText("Answer-F", (getNumber("1-F") / getNumber("2-F")) * (getNumber("3-F") / getNumber("4-F")));
onEvent("÷-F", "click", function(event) {
 showElement("Answer-F");
 setText("Answer-F", (getNumber("1-F") / getNumber("2-F")) / (getNumber("3-F") / getNumber("4-F")));
onEvent("C-F", "click", function(event) {
 showElement("Answer-F");
 setText("1-F", "");
 setText("2-F", "");
 setText("3-F", "");
 setText("4-F", "");
onEvent("Back-F", "click", function(event) {
 setScreen("Selector2");
});
//Data
onEvent("OK-K", "click", function(event) {
 setScreen("KeyValuesRWPage");
onEvent("Back-K", "click", function(event) {
 setScreen("Selector");
});
//Write
onEvent("Save", "click", function(event) {
```

```
var id = getText("Recallid1") + getNumber("slider1");
 if (id == "Help0") {
  setText("Message", "Nope");
 } else {
  getKeyValue(id, function (value) {
   if (value == undefined) {
    setKeyValue(id, getText("Message"), function () {
    });
   } else {
    setKeyValue(id, (value + ", ") + getText("Message"), function (record) {
    });
   }
 });
}
});
//Read
//Info
onEvent("OK-M", "click", function(event) {
 setScreen("Messenger");
});
//Send
onEvent("Send-M", "click", function(event) {
 if (getText("Username-M") == "Account") {
  setScreen("AccountCreator");
 } else {
  if ((getText("Username-M") == "Info" || getText("Username-M") == "Help") || getText("Username-M") == "help") {
   setText("Message-M", prompt("Why would you do that"));
  } else {
   getKeyValue(getText("Username-M"), function (Message) {
    if (Message == undefined) {
     setKeyValue(getText("Username-M"), getText("Message-M"), function () {
     });
    } else {
     setKeyValue(getText("Username-M"), (Message + ",\n") + getText("Message-M"), function (record) {
     });
    }
   });
  }
}
});
//Receive
onEvent("Recieve-M", "click", function() {
 getKeyValue(getText("Password-M"), function (Username) {
  getKeyValue(Username, function (Message) {
   setText("ReceivedMessage-M", Message);
  });
});
});
timedLoop(100, function() {
 if (getChecked("isRepeat-M") === true) {
  getKeyValue(getText("Password-M"), function (value) {
   getKeyValue(value, function (Message) {
    setText("ReceivedMessage-M", Message);
```

```
});
 });
}
});
//AccountCreator
onEvent("Create-AC", "click", function() {
 setKeyValue(getText("Password-AC"), getText("Username-AC"), function () {});
 setScreen("Messenger");
});
//Dice Game
onEvent("Back-G", "click", function() {
 setScreen("Selector3");
onEvent("Roll-G", "click", function() {
 var P = randomNumber(2, 12);
 var C = randomNumber(2, 12);
 setText("PDice-G", P);
 setText("COMDice-G", C);
 if (P > C) {
  setText("WorL-G", "You Won");
 } else if ((P < C)) {
  setText("WorL-G", "You Lost");
 } else {
  setText("WorL-G", "Tie");
}
});
//RNG
onEvent("Generate-RNG", "click", function() {
 setText("Answer-RNG", randomNumber(getNumber("Input1-RNG"), getNumber("Input2-RNG")));
 showElement("Answer-RNG");
onEvent("Clear-RNG", "click", function() {
 hideElement("Answer-RNG");
 setText("Input1-RNG", "");
 setText("Input2-RNG", "");
});
onEvent("Back-RNG", "click", function() {
 setScreen("Selector3");
});
//Music Player
var MPURL;
onEvent("Play-MP", "click", function() {
 if (getText("Sel-MP") == "1") {
  MPURL = "sound://category_male_voiceover/objective_achieved_male.mp3";
} else {
 playSound(MPURL, false);
});
onEvent("Stop-MP", "click", function() {
 stopSound();
onEvent("Back-MP", "click", function() {
 setScreen("Selector3");
});
//Classic
var NumC = "";
```

```
var Num2C = "";
var Num3C = "";
var E1C = "";
var E2C = "";
var E3C = "";
var CounterC = 0;
var TempNum2C = "";
var TempNum3C = "";
function ClassicFunction(n) {
 onEvent(n, "click", function() {
  setText("Answer-C", getText("Answer-C") + getText(n));
});
function VarSetASMD(n) {
 onEvent(n, "click", function() {
  if (E1C == "") {
   CounterC = CounterC + 1;
   E1C = getText(n);
   NumC = getNumber("Answer-C");
   setText("Answer-C", "");
  } else if ((E2C == "")) {
   CounterC = CounterC + 1;
   E2C = getText(n);
   Num2C = getNumber("Answer-C");
   setText("Answer-C", "");
  } else if (E3C == "") {
   CounterC = CounterC + 1;
   E3C = getText(n);
   Num3C = getNumber("Answer-C");
   setText("Answer-C", "");
   setText("Answer-C", "Error");
 }
});
ClassicFunction("9-C");
ClassicFunction("8-C");
ClassicFunction("7-C");
ClassicFunction("6-C");
ClassicFunction("5-C");
ClassicFunction("4-C");
ClassicFunction("3-C");
ClassicFunction("2-C");
ClassicFunction("1-C");
ClassicFunction("0-C");
ClassicFunction(".-C");
VarSetASMD("+-C");
VarSetASMD("--C");
VarSetASMD("/-C");
VarSetASMD("x-C");
onEvent("C-C", "click", function() {
 setText("Answer-C", "");
 NumC = "";
 Num2C = "";
 Num3C = "";
 E1C = "";
 E2C = "";
```

```
E3C = "";
 TempNum2C = "";
 TempNum3C = "";
 CounterC = 0;
});
onEvent("Back-C", "click", function() {
 setScreen("Selector");
});
function FOA() {
 if (CounterC == 2) {
  if (E2C == "+") {
    setText("Answer-C", TempNum2C + getNumber("Answer-C"));
   } else if ((E2C == "-")) {
    setText("Answer-C", TempNum2C - getNumber("Answer-C"));
   } else if ((E2C == \times)) {
    setText("Answer-C", TempNum2C * getNumber("Answer-C"));
   } else if ((E2C == "÷")) {
    setText("Answer-C", TempNum2C / getNumber("Answer-C"));
 } else if (CounterC >= 3) {
  if (E2C == "+") {
    TempNum3C = TempNum2C + getNumber("Answer-C");
    FOA3();
   } else if ((E2C == "-")) {
    TempNum3C = TempNum2C - getNumber("Answer-C");
    FOA3();
   } else if ((E2C == "\times")) {
    TempNum3C = TempNum2C * getNumber("Answer-C");
    FOA3();
   } else if ((E2C == "÷")) {
    TempNum3C = TempNum2C / getNumber("Answer-C");
    FOA3();
   }
 } else {
  setText("Answer-C", "Error");
}
}
function FOA3() {
 if (E3C == "+") {
   setText("Answer-C", TempNum3C + getNumber("Answer-C"));
  } else if ((E3C == "-")) {
   setText("Answer-C", TempNum3C - getNumber("Answer-C"));
  } else if ((E3C == "\times")) {
   setText("Answer-C", TempNum3C * getNumber("Answer-C"));
  } else if ((E3C == "÷")) {
   setText("Answer-C", TempNum3C / getNumber("Answer-C"));
  }
}
onEvent("=-C", "click", function() {
 if (CounterC == 1) {
  if (E1C == "+") {
   setText("Answer-C", NumC + getNumber("Answer-C"));
  } else if ((E1C == "-")) {
   setText("Answer-C", NumC - getNumber("Answer-C"));
  } else if ((E1C == \times)) {
   setText("Answer-C", NumC * getNumber("Answer-C"));
  } else if ((E1C == "÷")) {
```

```
setText("Answer-C", NumC / getNumber("Answer-C"));
} else if ((CounterC >= 2)) {
  if (E1C == "+") {
  TempNum2C = NumC + Num2C;
  FOA();
 } else if ((E1C == "-")) {
   TempNum2C = NumC - Num2C;
  FOA();
 } else if ((E1C == "X")) {
   TempNum2C = NumC * Num2C;
  FOA();
 } else if ((E1C == "÷")) {
  TempNum2C = NumC / Num2C;
  FOA();
} else {
  setText("Answer-C", "Error");
});
```

Works Cited/Bibliography

Code.org