

```
/*This is a game. The idea is to "catch" the light when it is in the middle of the 7segment display. If you get it right, it speeds up. If you get it wrong it slows down. You win when the lights flash.*/
```

```
int segA = 4;
int segB = 5;
int segC = 6;
int segD = 7;
int segE = 8;
int segF = 9;
int segG = 10;
int button = 2;
int winner1 = 11;
int winner2 = 12;
int SPEED = 200;
int stepCount = 0;
```

```
int stepOrder[] = {segF,segA,segB,segG,segE,segD,segC,segG};
```

```
void winner() {
    for(int rep = 0;rep < 10;rep++){
        digitalWrite(winner1,1);
        digitalWrite(winner2,0);
        delay(150);
        digitalWrite(winner1,0);
        digitalWrite(winner2,1);
        delay(150);
    }
    digitalWrite(winner1,1);
    SPEED = 200;
    while(digitalRead(button) == LOW){ //restart button
        delay(10);
    }
}
```

```
void setup() {
    pinMode(segA,OUTPUT);
    pinMode(segB,OUTPUT);
    pinMode(segC,OUTPUT);
    pinMode(segD,OUTPUT);
    pinMode(segE,OUTPUT);
    pinMode(segF,OUTPUT);
    pinMode(segG,OUTPUT);
    pinMode(winner1,OUTPUT);
    pinMode(winner2,OUTPUT);
    pinMode(button,INPUT);
}
```

```
see over for void loop();
```



```
void loop() {
  digitalWrite(winner1,0);
  digitalWrite(winner2,0);
  delay(500);
  while(digitalRead(button) == LOW){
    digitalWrite(stepOrder[stepCount],1);
    delay(SPEED);

    //The "catching" section.
    if(digitalRead(button) == HIGH){
      if(stepCount == 3 || stepCount == 7){
        SPEED = SPEED - 50;
      }
      else{SPEED = SPEED + 20;}
      delay(500);
    }

    //Checking for a winner.
    if(SPEED < 50){
      winner();
    }

    //Resuming the stepping.
    digitalWrite(stepOrder[stepCount],0);
    stepCount++;
    if(stepCount == 8){stepCount = 0;}
  }
}
```