

```

int seconds = 0; //leave the seconds alone and start at the beginning of a minutes.
int minutes = 63; //minutes go in intervals of 3 ex. 30min = 90 degrees.
int hours = 6; //twelve hour format, just dont start with 12 or 11.
int var = 0;
int val = 0;
int ledPin1 = 5;
int ledPin2 = 4;
int ledPin4 = 3;
int ledPin8 = 2;
int ledPinampm = 6;
int ampmState = 1;
int lastampmState = 1; // set ampmState and ledState to either 1 or 0. 1 for pm, 0 for am.
int ledState = 1;
#include <Servo.h>
Servo myservo;
Servo myservo2;
void setup() {
  myservo.attach(9);
  myservo2.attach(8);
  myservo.write(seconds);
  myservo2.write(minutes);
  pinMode(ledPin1, OUTPUT);
  pinMode(ledPin2, OUTPUT);
  pinMode(ledPin4, OUTPUT);
  pinMode(ledPin8, OUTPUT);
  pinMode(ledPinampm, OUTPUT);
  if (ampmState == 1) {
    digitalWrite(ledPinampm, HIGH);
  }
  if (ampmState == 0) {
    digitalWrite(ledPinampm, LOW);
  }
  if (hours == 1) {
    digitalWrite(ledPin1, HIGH);
    digitalWrite(ledPin2, LOW);
    digitalWrite(ledPin4, LOW);
    digitalWrite(ledPin8, LOW);
  }
  if (hours == 2) {
    digitalWrite(ledPin1, LOW);
    digitalWrite(ledPin2, HIGH);
    digitalWrite(ledPin4, LOW);
    digitalWrite(ledPin8, LOW);
  }
  if (hours == 3) {
    digitalWrite(ledPin1, HIGH);
    digitalWrite(ledPin2, HIGH);
    digitalWrite(ledPin4, LOW);
  }
}

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    digitalWrite(ledPin8, LOW);
}
if (hours == 4) {
    digitalWrite(ledPin1, LOW);
    digitalWrite(ledPin2, LOW);
    digitalWrite(ledPin4, HIGH);
    digitalWrite(ledPin8, LOW);
}
if (hours == 5) {
    digitalWrite(ledPin1, HIGH);
    digitalWrite(ledPin2, LOW);
    digitalWrite(ledPin4, HIGH);
    digitalWrite(ledPin8, LOW);
}
if (hours == 6) {
    digitalWrite(ledPin1, LOW);
    digitalWrite(ledPin2, HIGH);
    digitalWrite(ledPin4, HIGH);
    digitalWrite(ledPin8, LOW);
}
if (hours == 7) {
    digitalWrite(ledPin1, HIGH);
    digitalWrite(ledPin2, HIGH);
    digitalWrite(ledPin4, HIGH);
    digitalWrite(ledPin8, LOW);
}
if (hours == 8) {
    digitalWrite(ledPin1, LOW);
    digitalWrite(ledPin2, LOW);
    digitalWrite(ledPin4, LOW);
    digitalWrite(ledPin8, HIGH);
}
if (hours == 9) {
    digitalWrite(ledPin1, HIGH);
    digitalWrite(ledPin2, LOW);
    digitalWrite(ledPin4, LOW);
    digitalWrite(ledPin8, HIGH);
}
if (hours == 10) {
    digitalWrite(ledPin1, LOW);
    digitalWrite(ledPin2, HIGH);
    digitalWrite(ledPin4, LOW);
    digitalWrite(ledPin8, HIGH);
}
if (hours == 11) {
    digitalWrite(ledPin1, HIGH);
    digitalWrite(ledPin2, HIGH);
    digitalWrite(ledPin4, LOW);
}
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    digitalWrite(ledPin8, HIGH);
}
if (hours == 12) {
    digitalWrite(ledPin1, LOW);
    digitalWrite(ledPin2, LOW);
    digitalWrite(ledPin4, HIGH);
    digitalWrite(ledPin8, HIGH);
}
}
}
void loop() {
    while(var < 39) { // set the value that is next to the "var <" to the number of minutes left in the hour.
        for (seconds = 0; seconds < 180; seconds +=3) {
            myservo.write(seconds);
            delay(1000);
        }
        if (seconds == 180) {
            myservo2.write(minutes += 3);
        }
        if (minutes == 180) {
            myservo2.write(0);
            hours += 1;
        }

        if (hours == 1) {
            digitalWrite(ledPin1, HIGH);
            digitalWrite(ledPin2, LOW);
            digitalWrite(ledPin4, LOW);
            digitalWrite(ledPin8, LOW);
        }
        if (hours == 2) {
            digitalWrite(ledPin1, LOW);
            digitalWrite(ledPin2, HIGH);
            digitalWrite(ledPin4, LOW);
            digitalWrite(ledPin8, LOW);
        }
        if (hours == 3) {
            digitalWrite(ledPin1, HIGH);
            digitalWrite(ledPin2, HIGH);
            digitalWrite(ledPin4, LOW);
            digitalWrite(ledPin8, LOW);
        }
        if (hours == 4) {
            digitalWrite(ledPin1, LOW);
            digitalWrite(ledPin2, LOW);
            digitalWrite(ledPin4, HIGH);
            digitalWrite(ledPin8, LOW);
        }
        if (hours == 5) {

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```
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, LOW);
digitalWrite(ledPin4, HIGH);
digitalWrite(ledPin8, LOW);
}
if (hours == 6) {
digitalWrite(ledPin1, LOW);
digitalWrite(ledPin2, HIGH);
digitalWrite(ledPin4, HIGH);
digitalWrite(ledPin8, LOW);
}
if (hours == 7) {
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, HIGH);
digitalWrite(ledPin4, HIGH);
digitalWrite(ledPin8, LOW);
}
if (hours == 8) {
digitalWrite(ledPin1, LOW);
digitalWrite(ledPin2, LOW);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin8, HIGH);
}
if (hours == 9) {
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, LOW);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin8, HIGH);
}
if (hours == 10) {
digitalWrite(ledPin1, LOW);
digitalWrite(ledPin2, HIGH);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin8, HIGH);
}
if (hours == 11) {
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, HIGH);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin8, HIGH);
}
if (hours == 12) {
digitalWrite(ledPin1, LOW);
digitalWrite(ledPin2, LOW);
digitalWrite(ledPin4, HIGH);
digitalWrite(ledPin8, HIGH);
}
var++;
```

```
}
for (seconds = 0; seconds < 180; seconds +=3) {
  myservo.write(seconds);
  delay(1000);
}
if (seconds == 180) {
  myservo2.write(val += 3);
}
if (val == 180) {
  myservo2.write(0);
}
if (hours == 1, val == 180) {
  hours = 2;
}
if (hours == 2, val == 180) {
  hours = 3;
}
if (hours == 3, val == 180) {
  hours = 4;
}
if (hours == 4, val == 180) {
  hours = 5;
}
if (hours == 5, val == 180) {
  hours = 6;
}
if (hours == 6, val == 180) {
  hours = 7;
}
if (hours == 7, val == 180) {
  hours = 8;
}
if (hours == 8, val == 180) {
  hours = 9;
}
if (hours == 9, val == 180) {
  hours = 10;
}
if (hours == 10, val == 180) {
  hours = 11;
}
if (hours == 11, val == 180) {
  hours = 12;
}
if (hours == 12, val == 180) {
  hours = 12;
}
}
if (hours == 1) {
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```
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, LOW);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin8, LOW);
}
if (hours == 2) {
digitalWrite(ledPin1, LOW);
digitalWrite(ledPin2, HIGH);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin8, LOW);
}
if (hours == 3) {
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, HIGH);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin8, LOW);
}
if (hours == 4) {
digitalWrite(ledPin1, LOW);
digitalWrite(ledPin2, LOW);
digitalWrite(ledPin4, HIGH);
digitalWrite(ledPin8, LOW);
}
if (hours == 5) {
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, LOW);
digitalWrite(ledPin4, HIGH);
digitalWrite(ledPin8, LOW);
}
if (hours == 6) {
digitalWrite(ledPin1, LOW);
digitalWrite(ledPin2, HIGH);
digitalWrite(ledPin4, HIGH);
digitalWrite(ledPin8, LOW);
}
if (hours == 7) {
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, HIGH);
digitalWrite(ledPin4, HIGH);
digitalWrite(ledPin8, LOW);
}
if (hours == 8) {
digitalWrite(ledPin1, LOW);
digitalWrite(ledPin2, LOW);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin8, HIGH);
}
if (hours == 9) {
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```
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, LOW);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin8, HIGH);
}
if (hours == 10) {
  digitalWrite(ledPin1, LOW);
  digitalWrite(ledPin2, HIGH);
  digitalWrite(ledPin4, LOW);
  digitalWrite(ledPin8, HIGH);
}
if (hours == 11) {
  digitalWrite(ledPin1, HIGH);
  digitalWrite(ledPin2, HIGH);
  digitalWrite(ledPin4, LOW);
  digitalWrite(ledPin8, HIGH);
}
if (hours == 12) {
  digitalWrite(ledPin1, LOW);
  digitalWrite(ledPin2, LOW);
  digitalWrite(ledPin4, HIGH);
  digitalWrite(ledPin8, HIGH);
}

if (hours == 12 && val == 0 && lastampmState == 1)
{
  ledState = 1 - ledState;
  lastampmState = 1;
}
if (hours == 12 && val == 0 && lastampmState == 0)
{
  lastampmState = 0;
}

if (ledState == 1)
{
  digitalWrite(ledPinampm, HIGH);
}
else
{
  digitalWrite(ledPinampm, LOW);
}
}
```