```
//This sketch alternates between two servo positions whenever the button is pressed.
//The servo only drives for .8 of a second (40 * 20ms) to get to the position.

int button = 4;         //button attached to pin 4.
int servoOut = 8;       //servo attached to pin 8.
int pos;                //The position can be a number from 0 to 2000.
int posneg;             //offsets the time to ensure a 20ms pulse.
int servoReps = 40;     //number of times the signal pulse repeats.

void setup() {
  pinMode(button,INPUT);
  pinMode(servoOut,OUTPUT);
}

void servoDrive(){
for(int reps = 0;reps <= servoReps;reps++){   //This loop repeats for
  digitalWrite(servoOut,HIGH);                //"servoReps" times.
  delayMicroseconds(500);
  delayMicroseconds(pos);
  digitalWrite(servoOut,LOW);
  delayMicroseconds(posneg);
  delay(17);
  }
}

void loop() {
  while(digitalRead(button) == LOW){
     delay(10);     //The program is "paused" until the button is pushed.
     }
  pos = 200;                //Sets the position to "200".
  posneg = 2500 - pos;      //Calculates the time offset.
  servoDrive();             //Drives the servo to the position.
  delay(500);
  while(digitalRead(button) == LOW){
     delay(10);     //The program is "paused" until the button is pushed.
     }
  pos = 1900;               //Sets the position to "1900".
  posneg = 2500 - pos;      //Calculates the time offset.
  servoDrive();             //Drives the servo to the position.
  delay(500);
}
```