

Name:

Date:

Class:

C++ Code for Arduino Setup Fill in the Blank **Answer Key**

```
// C++
// Prosthetic Hand Code fill in the blank KEY

#include <Servo.h>

Servo myservo;

int servopin = 9;

int buttonpin = 2;

int potpin = A0;

int buttonState = 0;

int force = 0;

int angle = 0;

void setup() {

    myservo.attach(servopin);

    pinMode(buttonpin, INPUT_PULLUP);

    pinMode(A1, INPUT);

    pinMode(6, OUTPUT);

    Serial.begin(9600);

}
```

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```
void loop() {  
  
    buttonState = digitalRead(buttonpin);  
  
    if (buttonState == LOW) {  
  
        int potval = analogRead(potpin);  
  
        angle = map(potval, 0, 1023, 20, 120);  
  
        myservo.write(angle);  
  
    } else {  
  
        angle = 20;  
  
        myservo.write(angle);  
  
    }  
  
    force = analogRead(A1);  
  
    analogWrite(6, map(force, 0, 1023, 0, 255));  
  
    Serial.print(angle);  
  
    Serial.print(",");  
  
    Serial.println(force);  
  
    delay(1000);  
  
}
```

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