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//-----
// Programmer:Vincent La Vigna
// Name: Sad Cat Fixer
// Function: Press button 1 or 2 to select different modes. Button 1 turns on the Red LED(the
// laser) for a stand alone laser turret. Button 2 turns on the servo controlling the wheels,
// while keeping the laser on, making it a moving laser turret. You can turn off the laser to just
// making a toy for the cat to try and capture.
// the power button turns off the system entirely
//-----
// C++ code

#include <Servo.h>

int position = 0;

int i = 0;

int j = 0;

Servo myservo;

#include <IRremote.h>
#define RECEIVER_PIN 6 // define the connections
#define RED_LED_PIN 2

IRrecv receiver(RECEIVER_PIN); //creates a variable for RECEIVER_PIN
decode_results results;
unsigned long key_value = 0; //creates a variable setting it to 0

void setup()
{
  Serial.begin(9600); // begin serial communication at a baud rate of 9600
  receiver.enableIRIn(); // enable the receiver
  receiver.blink13(true); // enable blinking of the built-in LED when an IR signal is received
  pinMode(RED_LED_PIN, OUTPUT); // set the LED pins as output
  digitalWrite(RED_LED_PIN, LOW); // turn all the LEDs off

  myservo.write(0); //brings servo back to 0 before starting again
  delay(1000);

}
void loop() {
  if (receiver.decode(&results)) {
    if (results.value == 0xFFFFFFFF) {
      results.value = key_value;
    }
    switch (results.value)
    {

```

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case 0xFD00FF: //POWER BUTTON
Serial.println("POWER");
digitalWrite(RED_LED_PIN, LOW);
myservo.detach();
break;

case 0xFD08F7: //BUTTON 1 //laser
Serial.println("1");
toggleLED(RED_LED_PIN); // run the toggle LED function with the red LED pin as input
break ;

case 0xFD8877: //BUTTON 2 //servo
Serial.println("2");
myservo.attach(9, 500, 2500);
myservo.write(360);
delay(1000);
myservo.write(0);
delay(1000);
myservo.write(360);
delay(1000);
myservo.write(0);

break ;

}
key_value = results.value;
receiver.resume();
}
}
void toggleLED(int pin) { // function to toggle the LED on and off
if (digitalRead(pin) == HIGH) { // if the LED is on
digitalWrite(pin, LOW); // turn it off
}
else {
digitalWrite(pin, HIGH); // turn it on
}
}
}

```