# TO DEVELOP A SYSTEM FOR MANAGING PUBLIC INVOLVEMENT IN THE PRODUCTION OF SPECIFIC LOCAL COSTUMES

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## АННОЦАЦИЯ

Данная статья посвящена решению проблемы программирования системы контроля натяжения ворсового основа при производстве авровых ткань. Также обсуждаются проблемы обеспечения широкого использования современного менеджмента в текстильной промышленности.

**Ключевые слова:** технология, ремесло, авровых ткань, программное обеспечение, коренной основных нитей, ворсовых основных нитей, национальная одежда, элегантность.

## ABSTRACT

This article discusses the challenges of implementing a modern management system for controlling the efficient use of cotton in public carpet production, and also considers the issues related to maximizing the utilization of modern management in the textile industry.

**Keywords:** technology, craft, luxury gas, software, avr gas, indigenous main threads, bar basic threads, taste, national dress, elegance.

The traditional costumes of Uzbekistan showcase the material and spiritual richness, reflecting the uniqueness of the national identity and ethnic characteristics. In the national attire, various elements express the customs, social relationships, knowledge, religion, and aesthetic forms of different regions and historical eras. It also embodies the people’s ideals of beauty, distinctive aspects of craftsmanship, and some aspects of family life. Craftsmanship demands labor and, as a result of labor, the products obtained attract human attention with exceptional elegance. In order to

enhance this labor, the production of specific local textiles, aided by logistical support, is considered, addressing the challenges of involving our youth in work. In the program, the establishment of a specialized workshop for the production of specific local textiles has been implemented successfully. It includes monitoring the quality of cotton yarns using electronic devices. Special attention is paid to optimizing conditions for the growth of cotton and raw cotton.

For the production of textiles, the task of unrolling the yarn swiftly during the winding process has been assigned to the spindle. As the thread passes through the guide via a pulley, it is directed alternately to the right and left. As a result, the thread is wound onto the spindle and is rapidly unwound. This repetition of the process eventually leads to the automatic winding of the spindle.

These textiles, known as "avrli gazlamalar," are prominent in the core events of Uzbek national culture, exuding a celebratory spirit with their elegance, craftsmanship, and finesse. This process of creating them has evolved through hard work and dedication, grounded in the mastery of craftsmanship. Avrli textiles come in various forms, such as "Atlas" and "polotno," produced from soft silk in the "four selvage" (atlas), "eight selvage," and "twelve selvage" (Honatlas) varieties. Additionally, there are other types like adras, shoi, nimshoi, and "bekasam." The more selvages they possess, the more exquisite and intricate the textile becomes.

Coming in line with the demands of humanity, the application of intricate weaving techniques in our avrli textiles has significantly expanded the assortment of national textiles. This, in turn, contributes to successful exports and imports, serving both domestic and international markets with a diverse range of elaborately woven avr textiles that fill the markets with a multitude of colors and designs.

In the production of intricate textiles, the involvement of three and, in some cases, four selvage systems (patterns) is one of the most fundamental conditions. Each system (pattern) results in the creation of a weaving pattern. Two-sided textiles have the same appearance on both the front and reverse sides, while two-layer textiles have different appearances on the front and reverse sides. The possibilities of two-layer and two-sided weaving patterns are distinct – meaning, the creation of textiles with selvages on both sides without any change in the weaving pattern, as well as the production of textiles with varying thickness and weight due to two-layer weaving patterns. Furthermore, the presence of two-layer and two-sided selvage adds to the complexity of the textiles. These textiles involve the participation of three systems (patterns) [2]. Usually, two selvage systems are for the warp threads in the case of plain and even twill textiles, where one system is for the ground and the other is for the pattern. Conversely, in the case of complex textiles, it is possible to have two systems for the ground and one for the pattern. Alternatively, complex textiles may have two systems for the pattern and

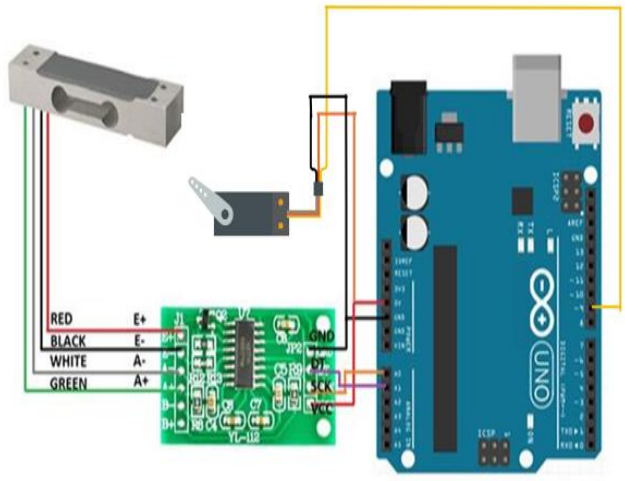
one for the ground. In two-layer textiles, five or more systems may be involved, resulting in intricate patterns. Some complex textiles require a high number of harnesses, a specific shedding mechanism, and a specialized warp-beam to produce. Complex weaving patterns are achieved as a result of the interaction between primary, secondary, and tertiary weaving systems.

To efficiently and effectively produce intricate textiles, it is crucial to implement a system for managing public involvement in weaving. This system plays an essential role in overseeing the production process to ensure the accuracy of the woven fabric.

In this context, control boards with their own processors and memory, such as Arduino, PLC, ESP32, and other industrial control boards, assist us. For example, through programming in C++ using the Arduino platform, you can write code and design circuits to monitor and control various processes, providing us with the ability to manage and oversee different tasks effectively.

```ino
#include <HX711.h>
#include <Servo.h>

const int motorPin = 9;                  // Digital pin number for the motor
const int weightThreshold = 10;          // Weight threshold value (10 kg)

HX711 loadCell;
float calibrationFactor = 1.0;           // Load cell calibration factor (adjust if needed)
Servo motor;

void setup() {
  pinMode(motorPin, OUTPUT);             // Set motor pin as output
  Serial.begin(9600);                    // Start serial communication (if needed)

  loadCell.begin(A1, A0);                //  HX711  (DT pin A1, SCK pin A0)
  loadCell.set_scale(calibrationFactor);  // Set load cell calibration factor
  loadCell.tare();                       // Reset the scale to 0

  motor.attach(motorPin);                 // Attach the motor object to the motor pin
}

void loop() {
  float weight = loadCell.get_units();      // Read the weight

  if (weight > weightThreshold) {
    motor.write(90);
  } else {
    motor.write(0);
  }

  Serial.print("Weight: ");
  Serial.print(weight);
  Serial.println(" kg");

  delay(1000);
}
```

1st image. Program code




2nd image. Connection diagram.

To monitor and control motion, the following can be implemented:

-Using a motor control library: Arduino platforms offer several libraries for controlling motors. These libraries provide functions to move motors, adjust speed, change the direction (left and right), and perform other motor control actions.

-To write the algorithm for monitoring and controlling motion, you can add the functions of motion control to your program. Based on information received from sensors, you can program actions like automatic motor control, maintaining lighting within desired limits, automatic distribution, and other additional operations in your program.

Expanding the range of national avrli textiles is possible by applying complex weaving patterns to avr textiles. This results in new types of avr textiles with intricate designs and patterns [3] [4].

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