**Bill of Materials (BOM)**

**1. Central Controller (PLC)**

* **Siemens SIMATIC S7-1500 PLC** with PROFIBUS DP Master module
  + Model: Siemens 6ES7511-1AK01-0AB0 (CPU 1511-1 PN)
  + Quantity: 1

**2. KRC2 Robots**

* **KUKA KRC2 Robot Controller**
  + Quantity: 2 (Robot Controllers)

**3. Laser Scanners**

* **KeyLance Laser Scanners**
  + Quantity: 2

**4. Tool Changers**

* **ATI Tool Changers**
  + Quantity: 2

**5. Sensor Interface Plates**

* **ATI Sensor Interface Plate Systems**
  + Quantity: 2

**6. Load Cells**

* **Sunrise Instruments Load Cells**
  + Quantity: 2

**7. Control Boxes**

* **Sunrise Instruments Control Boxes**
  + Quantity: 2

**8. Pneumatic Solenoid Valves**

* **NITRA Pneumatic Solenoid Valves**
  + Quantity: 4

**9. Fluid Solenoid Valves**

* **NITRA Fluid Solenoid Valves**
  + Quantity: 2

**10. Hydraulic Valves**

* **Hydraulic Valves**
  + Quantity: 2

**11. Pressure Switches**

* **Gems Pressure Switches**
  + Quantity: 4

**12. Hydraulic Pump**

* **Vevor Hydraulic Pump**
  + Quantity: 1

**13. PC Workstation**

* **PC Workstation** for Monitoring and Control
  + Quantity: 1
* **Ethernet Switch** 
  + Quantity: 1

**14. Spindle VFD**

* **Spindle Variable Frequency Drive (VFD)**
  + Quantity: 1

**15. Fixture**

* **Fixture** for workpiece handling or securing
  + Quantity: 1

**16. Communication Cables and Connectors**

* + **Ethernet Cables**
    - Type CAT 5e
  + Ethernet Switch
    - Quantity:2

**17. Power Supplies**

* **Power Supply Units**
  + 24V DC power supplies for devices as needed
  + Model: Siemens 6EP1333-3BA00 (24V/5A)
  + Quantity: As required (depending on device power requirements)