WHAT IS CLAIMED IS:

1. A conveyance system that conveys a workpiece to each of a plurality of processing apparatuses, the conveyance system comprising:

a conveyance passage set in a space directly above the processing apparatus across the plurality of processing apparatuses;

an automated workpiece conveying vehicle including a workpiece support part that supports the workpiece, a traveling mechanism disposed on the workpiece support part, and a receiver that receives a control signal, the automated workpiece conveying vehicle including the workpiece support part, and the workpiece being positioned above the conveyance passage, the automated workpiece conveying vehicle traveling on an upward facing surface of the conveyance passage;

a stock unit including a workpiece conveying part that conveys the workpiece between a workpiece stocker that houses the workpiece to be supplied to the processing apparatus and the automated workpiece conveying vehicle and a receiver that receives a control signal; and

a control unit including a transmitter that transmits a control signal to the processing apparatus, the automated workpiece conveying vehicle, and the stock unit, a receiver that receives a notification signal transmitted from the processing apparatus, and a control signal generator that generates the

control signal to be transmitted from the transmitter, wherein

the control signal generator of the control unit generates the control signal to be transmitted from the transmitter of the control unit based on the notification signal received by the receiver of the control unit,

the transmitter of the control unit transmits the control signal generated by the control signal generator of the control unit to the processing apparatus, the automated workpiece conveying vehicle, and the stock unit,

the workpiece conveying part of the stock unit conveys the workpiece housed in the workpiece stocker to the workpiece support part of the automated workpiece conveying vehicle based on the control signal received by the receiver of the stock unit, and

the traveling mechanism of the automated workpiece conveying vehicle causes the automated workpiece conveying vehicle to travel on the conveyance passage based on the control signal received by the receiver of the automated workpiece conveying vehicle to convey the workpiece supported by the workpiece support part to the processing apparatus.

2. The conveyance system according to claim 1, wherein

the conveyance passage is set on an upper surface of the processing apparatus.

3. The conveyance system according to claim 1, wherein

the conveyance passage is configured by coupling a plurality of passage modules.

4. The conveyance system according to claim 1, wherein

the conveyance passage includes a leg part having a suction adhesion part that adheres to the processing apparatus by suction, and is fixed to the processing apparatus by the suction adhesion part.

5. The conveyance system according to claim 1, wherein

the processing apparatus has a conduit connecting part to which conduits are connected or a door for maintenance on a side surface.

6. The conveyance system according to claim 1, wherein

the conveyance passage has raised sides.

7. A conveyance system that conveys a workpiece to each of a plurality of processing apparatuses, the conveyance system comprising:

a conveyance passage set in a space directly above the processing apparatus across the plurality of processing apparatuses;

an automated workpiece conveying vehicle including a workpiece support part that supports the workpiece, a traveling mechanism disposed on the workpiece support part, and a receiver

that receives a control signal, the automated workpiece conveying vehicle traveling on the conveyance passage;

a stock unit including a workpiece conveying part that conveys the workpiece between a workpiece stocker that houses the workpiece to be supplied to the processing apparatus and the automated workpiece conveying vehicle and a receiver that receives a control signal; and

a control unit including a transmitter that transmits a control signal to the processing apparatus, the automated workpiece conveying vehicle, and the stock unit, a receiver that receives a notification signal transmitted from the processing apparatus, and a control signal generator that generates the control signal to be transmitted from the transmitter, wherein

the control signal generator of the control unit generates the control signal to be transmitted from the transmitter of the control unit based on the notification signal received by the receiver of the control unit,

the transmitter of the control unit transmits the control signal generated by the control signal generator of the control unit to the processing apparatus, the automated workpiece conveying vehicle, and the stock unit,

the workpiece conveying part of the stock unit conveys the workpiece housed in the workpiece stocker to the workpiece support part of the automated workpiece conveying vehicle based on the control signal received by the receiver of the stock unit,

the traveling mechanism of the automated workpiece conveying vehicle causes the automated workpiece conveying vehicle to travel on the conveyance passage based on the control signal received by the receiver of the automated workpiece conveying vehicle to convey the workpiece supported by the workpiece support part to the processing apparatus,

an automated blade conveying vehicle including a blade support part that supports a cutting blade used when the workpiece is processed by the processing apparatus, a traveling mechanism disposed on the blade support part, and a receiver that receives a control signal, the automated blade conveying vehicle traveling on the conveyance passage, wherein

the stock unit further includes a blade conveying part that conveys the cutting blade between a blade stocker that houses the cutting blade to be supplied to the processing apparatus and the automated blade conveying vehicle,

the transmitter of the control unit further has a function of transmitting the control signal to the automated blade conveying vehicle,

the transmitter of the control unit transmits the control signal generated by the control signal generator of the control unit to the processing apparatus, the automated workpiece conveying vehicle, the automated blade conveying vehicle, and the stock unit,

the blade conveying part of the stock unit conveys the cutting blade housed in the blade stocker to the blade support

part of the automated blade conveying vehicle based on the control signal received by the receiver of the stock unit, and

the traveling mechanism of the automated blade conveying vehicle causes the automated blade conveying vehicle to travel on the conveyance passage based on the control signal received by the receiver of the automated blade conveying vehicle to convey the cutting blade supported by the blade support part to the processing apparatus.

8. The conveyance system according to claim 7, wherein

the conveyance passage is set on an upper surface of the processing apparatus.

9. The conveyance system according to claim 7, wherein

the conveyance passage is configured by coupling a plurality of passage modules.

10. The conveyance system according to claim 7, wherein

the conveyance passage includes a leg part having a suction adhesion part that adheres to the processing apparatus by suction, and is fixed to the processing apparatus by the suction adhesion part.

11. The conveyance system according to claim 7, wherein

the processing apparatus has a conduit connecting part to which conduits are connected or a door for maintenance on a side

surface.

12. The conveyance system according to claim 7, wherein the automated workpiece conveying vehicle travels on an upper surface of the conveyance passage.

13. The conveyance system according to claim 7, wherein the conveyance passage has raised sides.