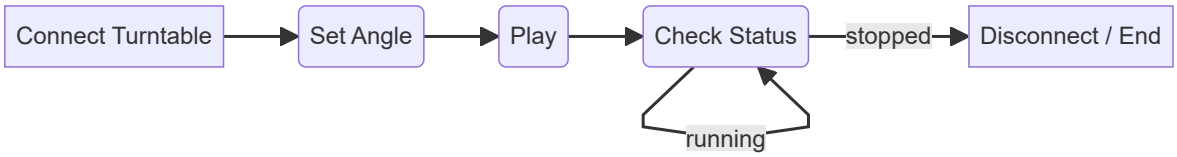
Turntable

Device Model

Parameter	Description
Model	MINAS-A6/A6L
Version	--
Manufacturer	Panasonic

Workflow



Plugin Dev(/Source Code)

C++

```
//------------------Main Workflow-------------------------
int rc1 = turnTableMove.ConnectTurnTable();

    QnRtnCode rc,rc3;
    std::string port1 = "TurnTableAngle";
    float TurnTableAngle = 0;
    rc3 = hasProperty(port1);
    if (rc3.isSuccess())
    {
        auto data1 = property(port1);
        Json::Reader reader;
        Json::Value root;
        if (reader.parse(data1, root, true))
            if (!root.empty())
                if (root.isObject())
                    if (root.isMember("value"))
                        if (root["value"].isNumeric())
                            TurnTableAngle = root["value"].asFloat();
    }
    turnTableMove.loadAngleCompensationValue();
    bool rc2 = turnTableMove.ReadAndAdjustAngle(TurnTableAngle,
turnTableMove.DegreeCom);

    turnTableMove.CloseAndReleaseResources();
```

```
//------------------TurnTableClient-------------------------
```

```
int CTCPClient::ConnectTurnTable()
{

    RTUctx = modbus_new_rtu("COM5", 38400, 'N', 8, 1);
    if (RTUctx == NULL)
    {
        std::cout << "Unable to create the libmodbus context\n";
        return -1;
    }

    CmdRet = modbus_set_slave(RTUctx, 1);
    CmdRet = modbus_connect(RTUctx);
    CmdRet = modbus_write_bit(RTUctx, 288, STB_OFF);
    CmdRet = modbus_write_bit(RTUctx, 96, SRVO_ON);
    CmdRet = modbus_write_register(RTUctx, 17428, AbsMove);
    CmdRet = modbus_read_registers(RTUctx, 17429, 1, InvidBlockNo);
    CmdRet = modbus_read_registers(RTUctx, 17430, 1, DataBlocNO);
    CmdRet = modbus_read_bits(RTUctx, 160, 4, DataReady);
}
bool CTCPClient::ReadAndAdjustAngle(float targetAngle, float angleCompensation)
{
    CmdRet = modbus_read_registers(RTUctx, 16898, 3, DataEnco);
    if (DataEnco[2] != 65535)
    {
        bEncoErr = FALSE;
        rTurnTableActAngle = (DataEnco[2] * 8388608 + (DataEnco[0] + DataEnco[1]
* 65535)) / (8388608 * 50 / 360.0) - angleCompensation;

    }
    else
    {
        rTurnTableActAngle = 0.0;
        bEncoErr = TRUE;
    }
    uint16_t ActPos[4];
    ActPos[0] = 0;
    ActPos[1] = 512;
    ActPos[2] = (targetAngle + angleCompensation) * 150 ;
    ActPos[3] = 0;
    CmdRet = modbus_write_registers(RTUctx, 18440, 4, ActPos);

    CmdRet = modbus_write_bit(RTUctx, 288, STB_ON);
    Sleep(500);
    while (CmdRet > 0)
    {

        CmdRet = modbus_read_registers(RTUctx, 16898, 3, DataEnco);
        if (DataEnco[2] != 65535)
        {
            bEncoErr = FALSE;
            rTurnTableActAngle = (DataEnco[2] * 8388608 + (DataEnco[0] +
DataEnco[1] * 65535)) / (8388608 * 50 / 360.0) - angleCompensation;
        }
        else
        {
            rTurnTableActAngle = 0.0;
```

```
            bEncoErr = FALSE;
        }
        CmdRet = modbus_read_bits(RTUctx, 160, 4, DataReady);
        if ((abs(rTurnTableActAngle - targetAngle) < 0.1) && (DataReady[2] == 1))
        {
            CmdRet = modbus_write_bit(RTUctx, 288, STB_OFF);
            bTableArrived = TRUE;
            break;
        }
        Sleep(100);

    }

    return 0;
}
void CTCPClient::CloseAndReleaseResources()
{
    modbus_close(RTUctx);
    modbus_free(RTUctx);
    data.clear();
}
```

Documentation from Turntable

- Turntable Manual

Summary

The turntable is a device that can rotate the object to a specific angle. It is used to rotate the object to a specific angle for scanning or other purposes.