

HW consumer

An IIO device can be directly connected to another device in hardware. In this case the buffers between IIO provider and IIO consumer are handled by hardware. The Industrial I/O HW consumer offers a way to bond these IIO devices without software buffer for data. The implementation can be found under `:file: drivers/iio/buffer/hw-consumer.c`

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\iio\[linux-master] [Documentation] [driver-api] [iio]hw-consumer.rst, line 4); [backlink](#)

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- `struct iio_hw_consumer` â€” Hardware consumer structure
- `:cfunc:iio_hw_consumer_alloc` â€” Allocate IIO hardware consumer

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- `:cfunc:iio_hw_consumer_free` â€” Free IIO hardware consumer

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\iio\[linux-master] [Documentation] [driver-api] [iio]hw-consumer.rst, line 13); [backlink](#)

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- `:cfunc:iio_hw_consumer_enable` â€” Enable IIO hardware consumer

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- `:cfunc:iio_hw_consumer_disable` â€” Disable IIO hardware consumer

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HW consumer setup

As standard IIO device the implementation is based on IIO provider/consumer. A typical IIO HW consumer setup looks like this:

```
static struct iio_hw_consumer *hwc;

static const struct iio_info adc_info = {
    .read_raw = adc_read_raw,
};

static int adc_read_raw(struct iio_dev *indio_dev,
    struct iio_chan_spec const *chan, int *val,
    int *val2, long mask)
{
    ret = iio_hw_consumer_enable(hwc);

    /* Acquire data */

    ret = iio_hw_consumer_disable(hwc);
}

static int adc_probe(struct platform_device *pdev)
```

```
{  
    hwc = devm_iio_hw_consumer_alloc(&iio->dev);  
}
```

More details

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```
.. kernel-doc:: drivers/iio/buffer/industrialio-hw-consumer.c  
   :export:
```