

# Serial Console

## Output to Serial Console

Make sure the kernel is started with the following parameter...

```
console=ttyS0,115200
```

## Change Size (rows/cols)

Often the expected size of the TTY session isn't what you would want and feels constrained. You can change a bunch of setting using the `stty` command. Below will change the number of columns because that is what I most often feel I need to change...

```
stty cols 140
```

## Dual Output

It is possible to have the kernel write to both the standard pseudo-terminal (`tty0`) and the serial console (`ttyS0`) by adding the following kernel parameters...

```
console=ttyS0,9600 console=tty0
```

## View Console

It is possible to view serial console output using the `screen` command. With a USB-to-Serial adapter plugged in you may see a device called something like `/dev/tty.usbserial-AG0JL5ZB` that will act as the tty device.

```
screen /dev/tty.usbserial-AG0JL5ZB 115200,cs8,ixon
```

Parameters explained from `man screen`

Parameter	Description
<code>&lt;baud_rate&gt;</code>	This affects transmission as well as receive speed (usually 300, 1200, 9600 or 19200)
<code>cs8</code> or <code>cs7</code>	Specify the transmission of eight (or seven) bits per byte
<code>ixon</code> or <code>-ixon</code>	Enables (or disables) software flow-control (CTRL-S/CTRL-Q) for sending data
<code>ixoff</code> or <code>-ixon</code>	Enables (or disables) software flow-control for receiving data
<code>istrip</code> or <code>-istrip</code>	Clear (or keep) the eight bit in each received byte

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