Sony Remote Control Protocol

One start bit + 7 command bits + 5 address bits.

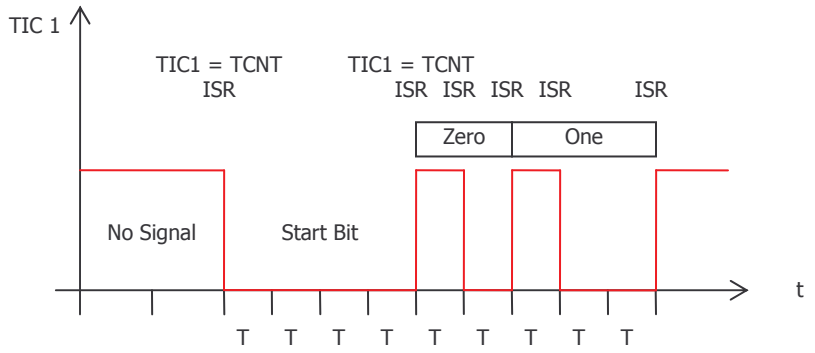
The start bit is equal to four times the signal period length

A zero in the Sony protocol will be a high for one time period and then low for another time period.

A one in the Sony protocol will be a high for one time period and then low for two time periods.

The low width is the one whose pulse width is being modulated.

The address bits are used by devices receiving the signal to determine whether the command was meant for them.



The demodulator has a high signal to noise ratio, meaning that it does a pretty good job of filtering out noise, such as the noise generated from the fluorescent lights.

Any noise that is present is something that would like to ignore.

For the Sony protocol, T is approximately 600 us. Therefore, 2T is 1.2 ms and 4T is 2.4 ms.

Implementing Remote Control functionality on the robot

Remove the OS Shell (serial communication to the HC11)
Replace the interactive control behavior provided by it with remote control.

When writing assembly code, we count down because we can do a compare, branch, and fall through.

In the ISR, count down until the number

	TIC	
Init Control Registers	TCTL2	EDG1B EDG1A
Init parameters, if needed	Not applicable	-
Do initial flag clear	TFLG1	IC1F
Init TMSK	TMSK1	IC1I

Remember the “write-1-to-clear” protection scheme behavior on the HC11.

Example:

```
LDAA    #%00000100
STAA    TFLG1
```

Don’t implement this with a LD-AND-OR-ST behavior.

Don’t forget to set up the vector location for TIC1.

What the ISR Might Do

int time[20]

The ISR wants to move what just got placed in the TIC1 register into the next location in the time vector.
Increment i.
If i = max, set some global variable indicating that a command is ready.

The process, then, needs to go through and do subtractions between the times measured. If a valid start bit is found

The ISR should be short and fast. Put the complexity in the process.