I used doubled times for all the morse code because I had trouble inputting the dots and dashes fast enough. There seems to sometimes be an error where it doesn't notice the first button press, I believe it sometimes gets stuck looking for a falling edge. I use a very strange algorithm that I came up with to decode the morse code. I give dots a value of 3 and dashes a value of ten. Then each value is multiplied by which digit it is. For example: A is .- with the . being worth 3 * 1 and the – being worth 10 * 2

There are some repeated numbers with this algorithm, but all repeated numbers have a different starting value, so I mark whether they started with a dash or a dot.