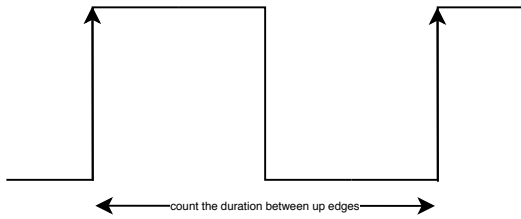


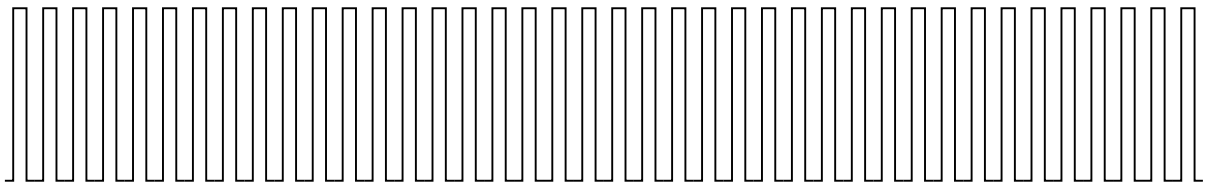
Linear interpolation



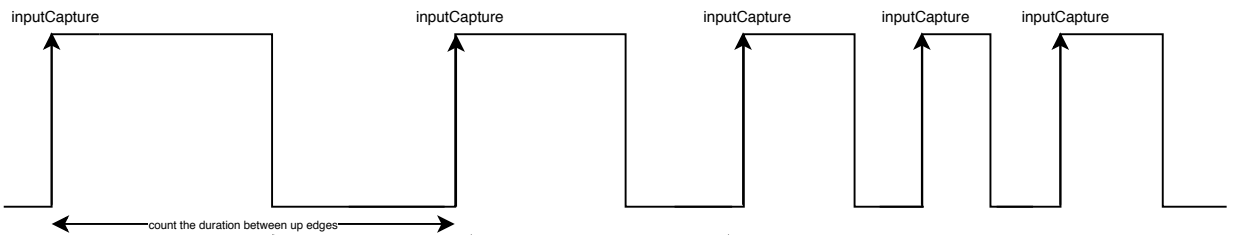
```

if(capture_event1){
    cli(); // inputCpture GPT2-1
    pitch0 = num3;
    pitchNew = ((pitch0 >> b_shift_p) & 0xffff) ; // divide here
    average += pitchNew;
    pitchNew = (int32_t) average();
    flag_pitch2 = true;
    flag_pitch();
    asm("dsb");
    capture_event1 = false;
    sei();
}
    
```

Sampling Clock (LRCK)



Demodulated signal source

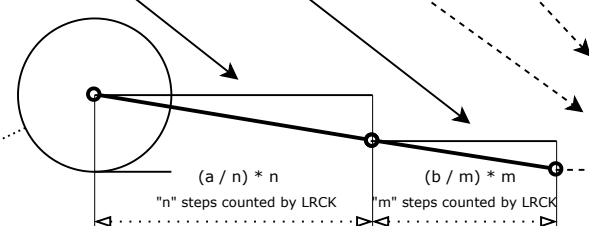
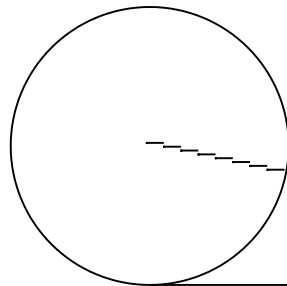


Results from inputCapture

```

if(step_pc > step_p){
    add_val_c = add_val_c;
}
else{
    interp_px = abs(interp_p) + interp_px;
    step_pc++;
}
if(pMag == HIGH){
    add_val_c = add_val_b + (int16_t)interp_px;
}
else{
    add_val_c = add_val_b - (int16_t)interp_px;
}
    
```

Linearized signal



```

interp_p = ((int16_t)(add_val_b - add_val_a) * 1000) / step_p * 0.001;
if(add_val_b < add_val_a){
    pMag = HIGH;
}
else{
    pMag = LOW;
}
    
```