

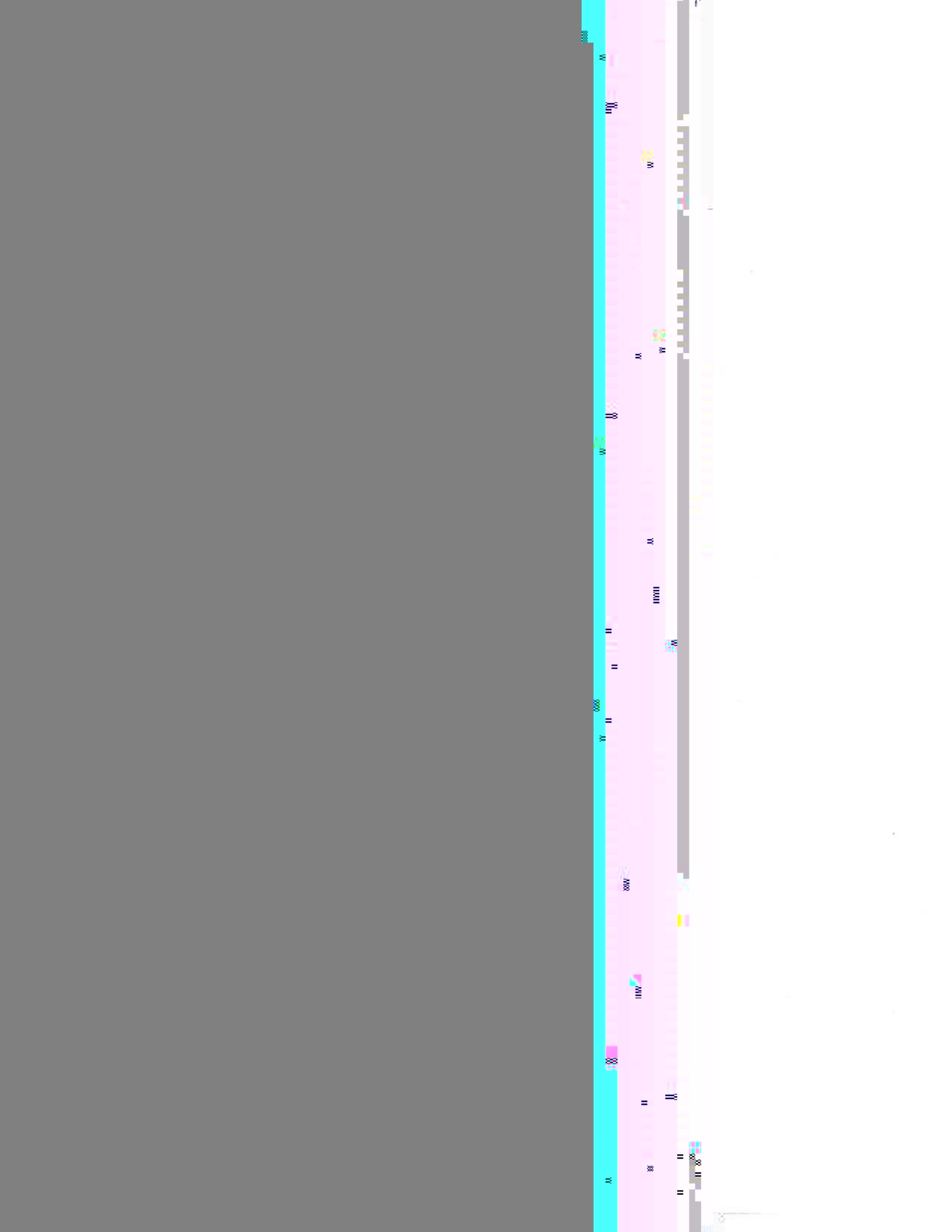
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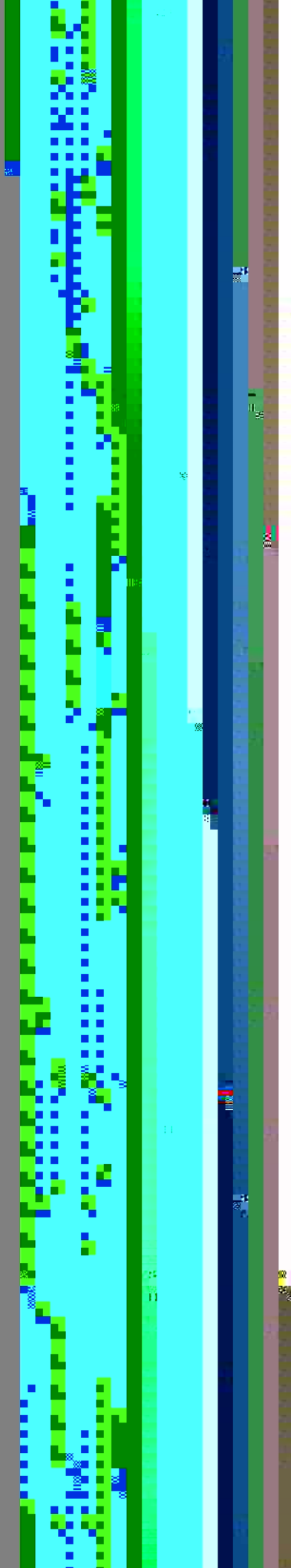
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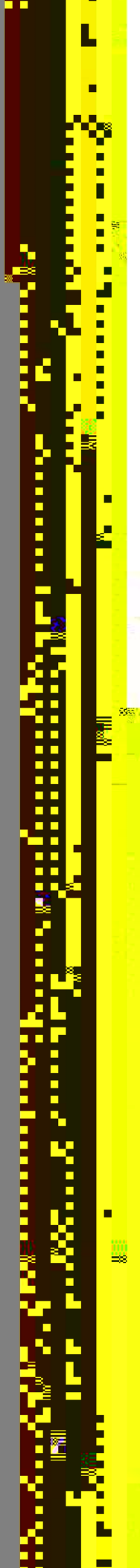


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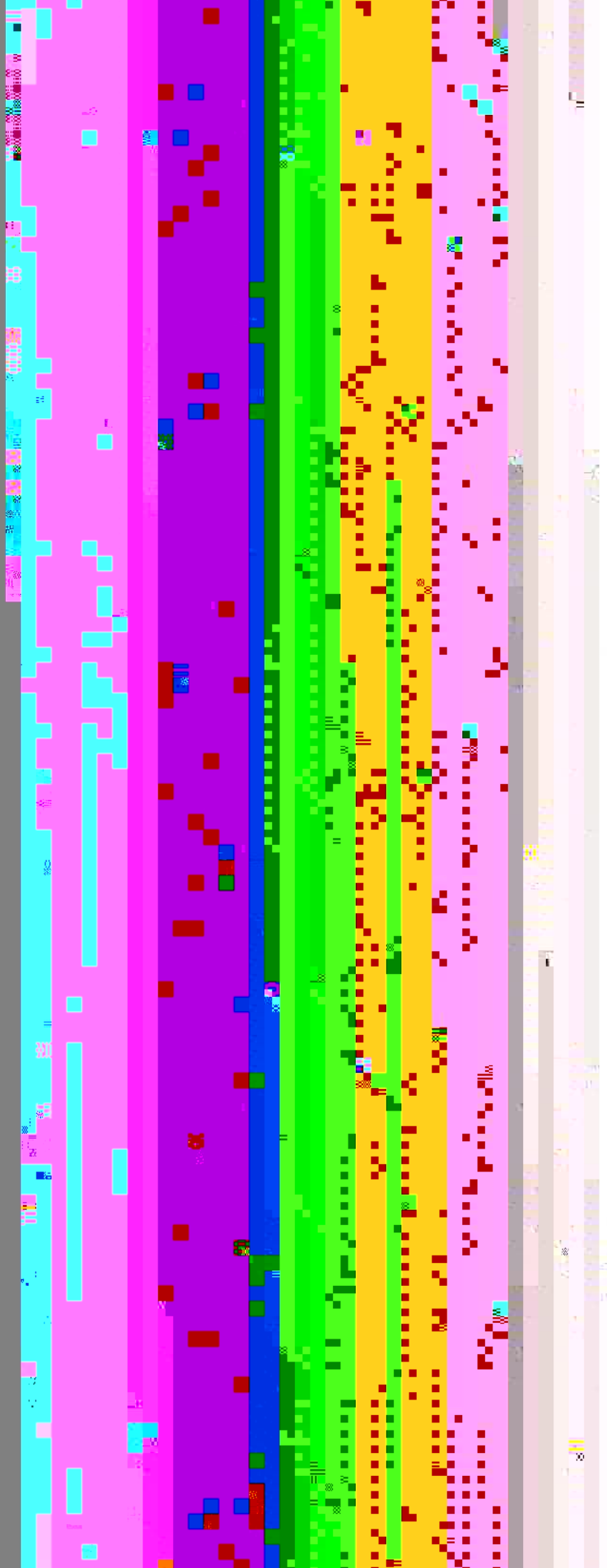




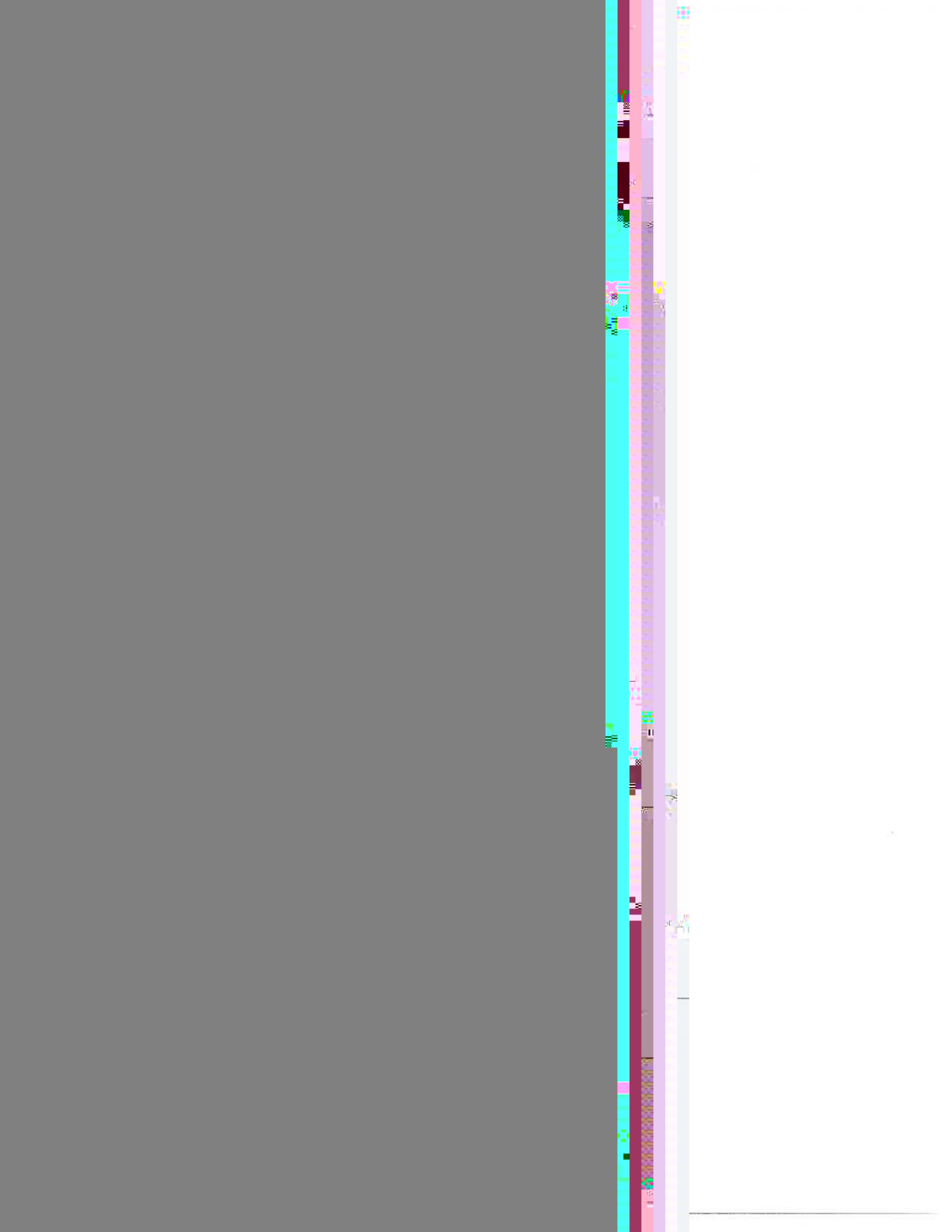




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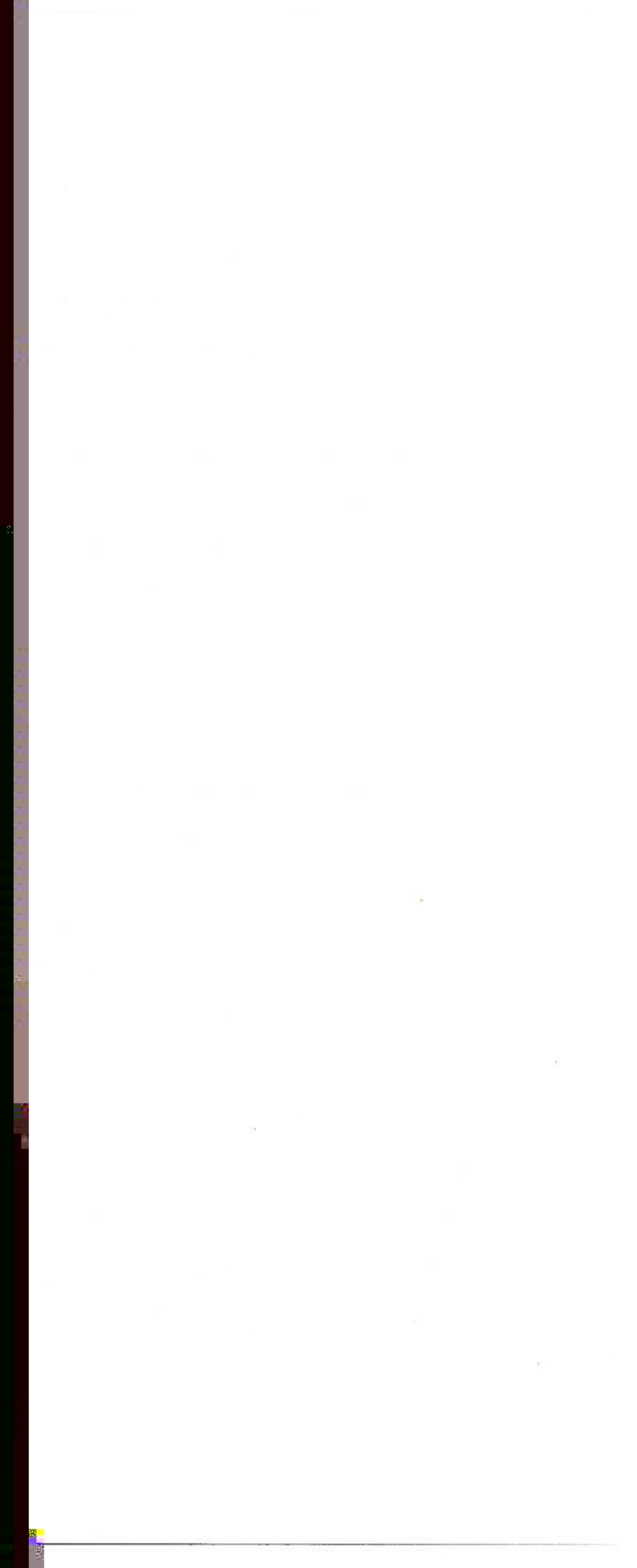
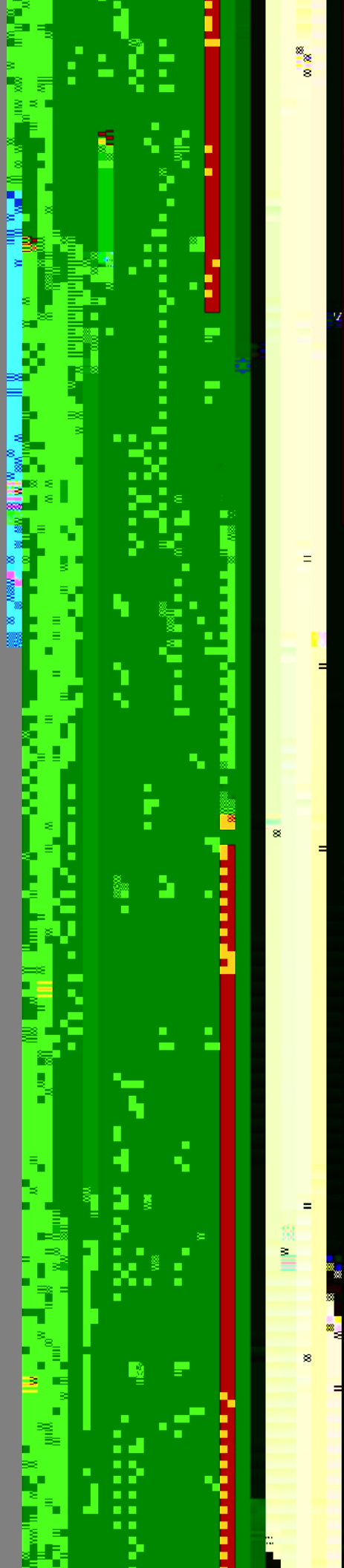












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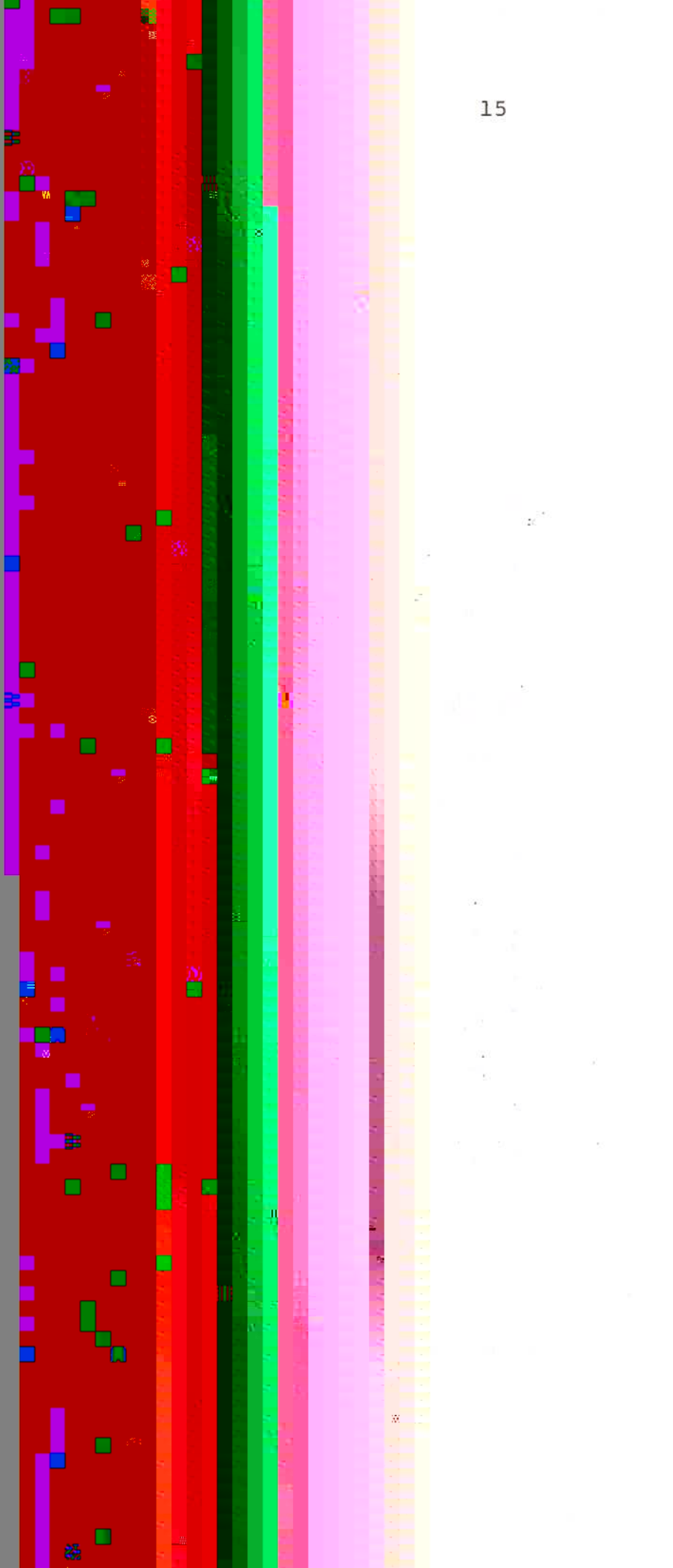
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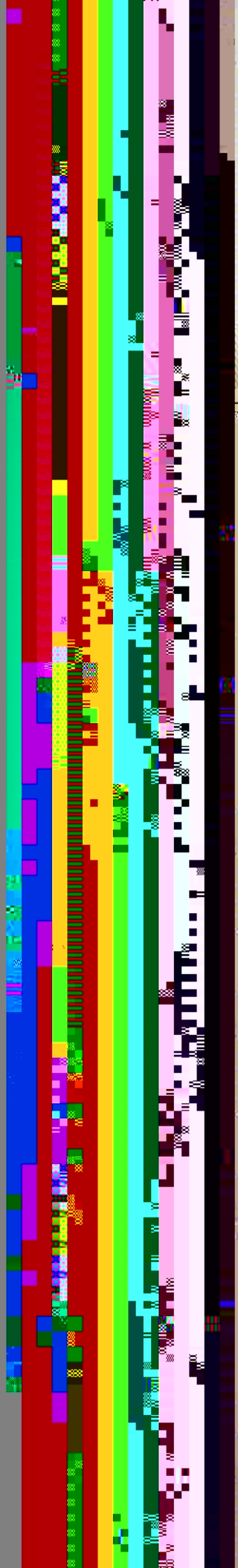
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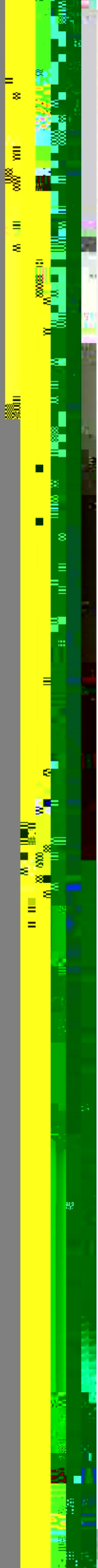


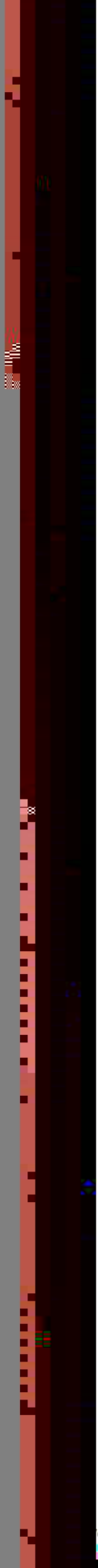


Fig. 3.1. Fuel support pieces
(Per GE NEDO-10174⁹)



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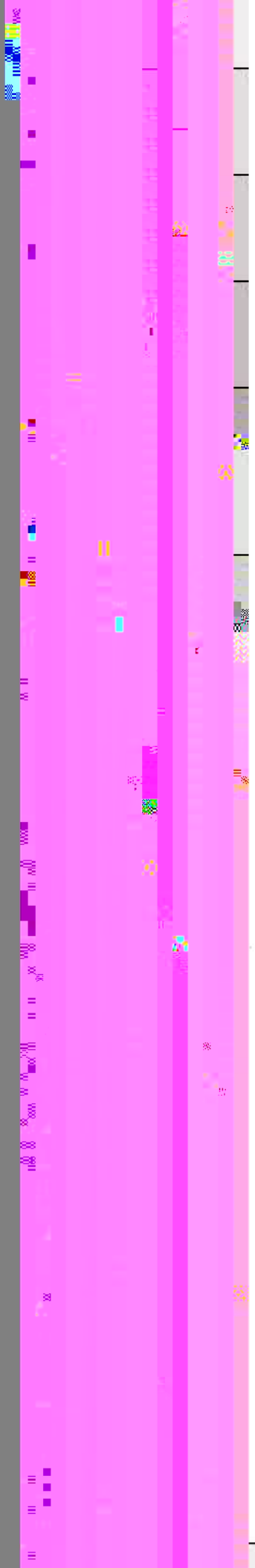


Fig. 3.3. Guide tube geometry
(Per GE⁸)



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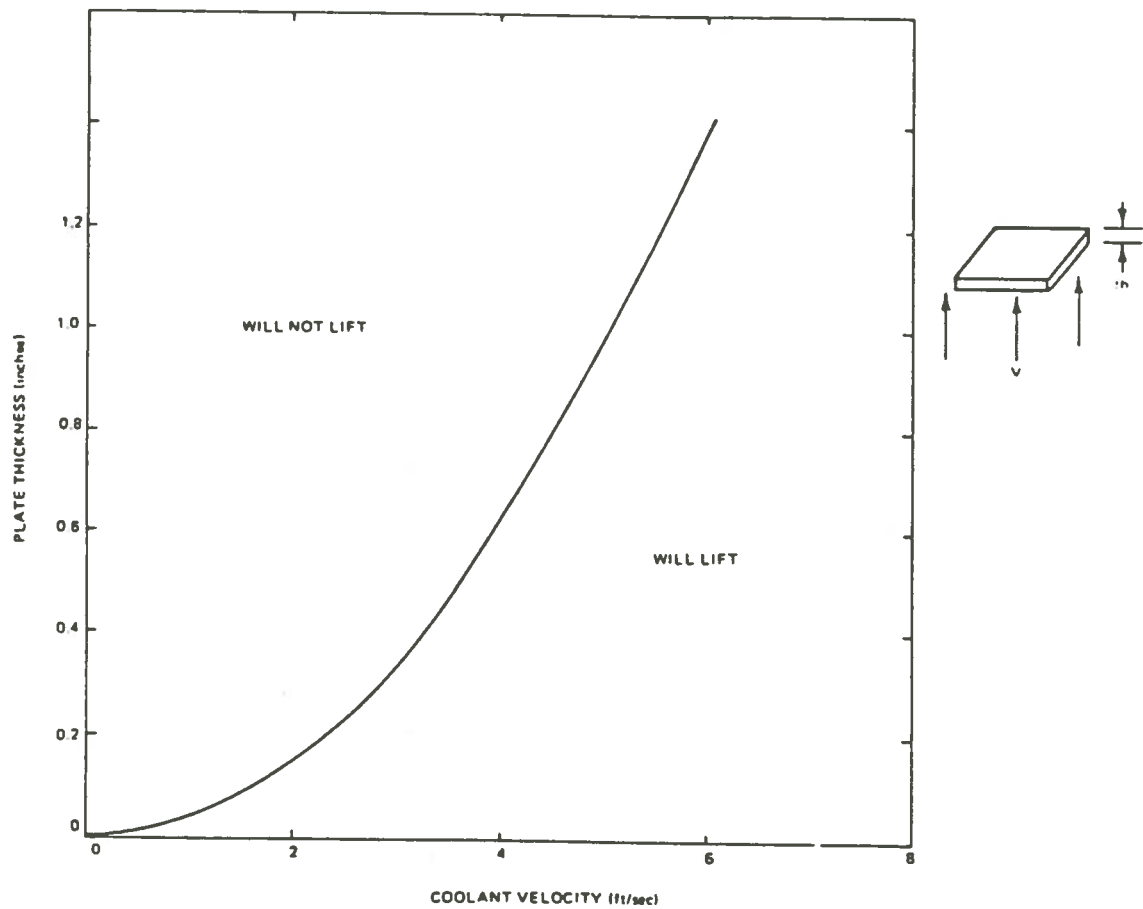
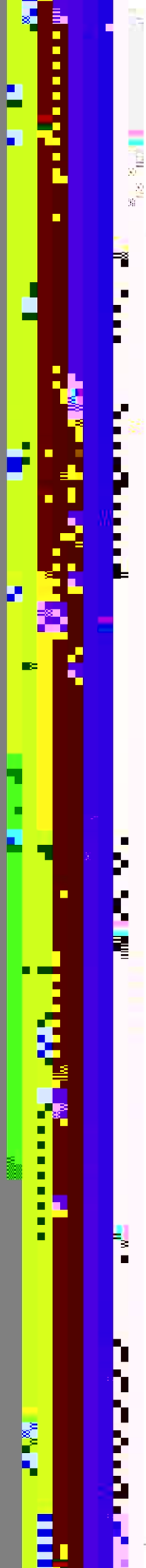
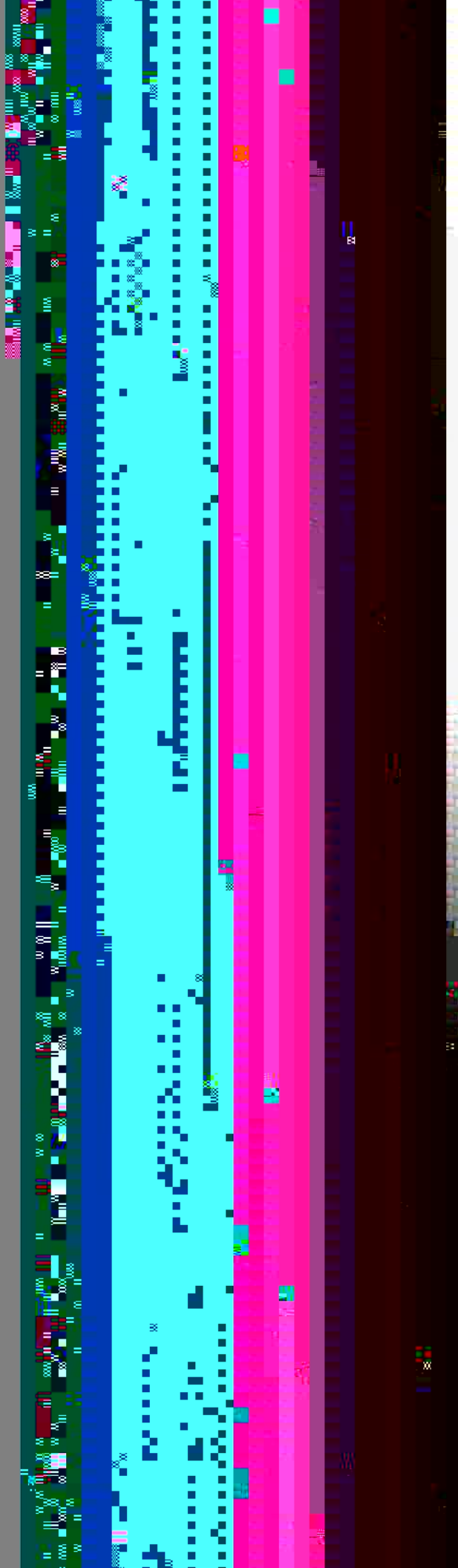
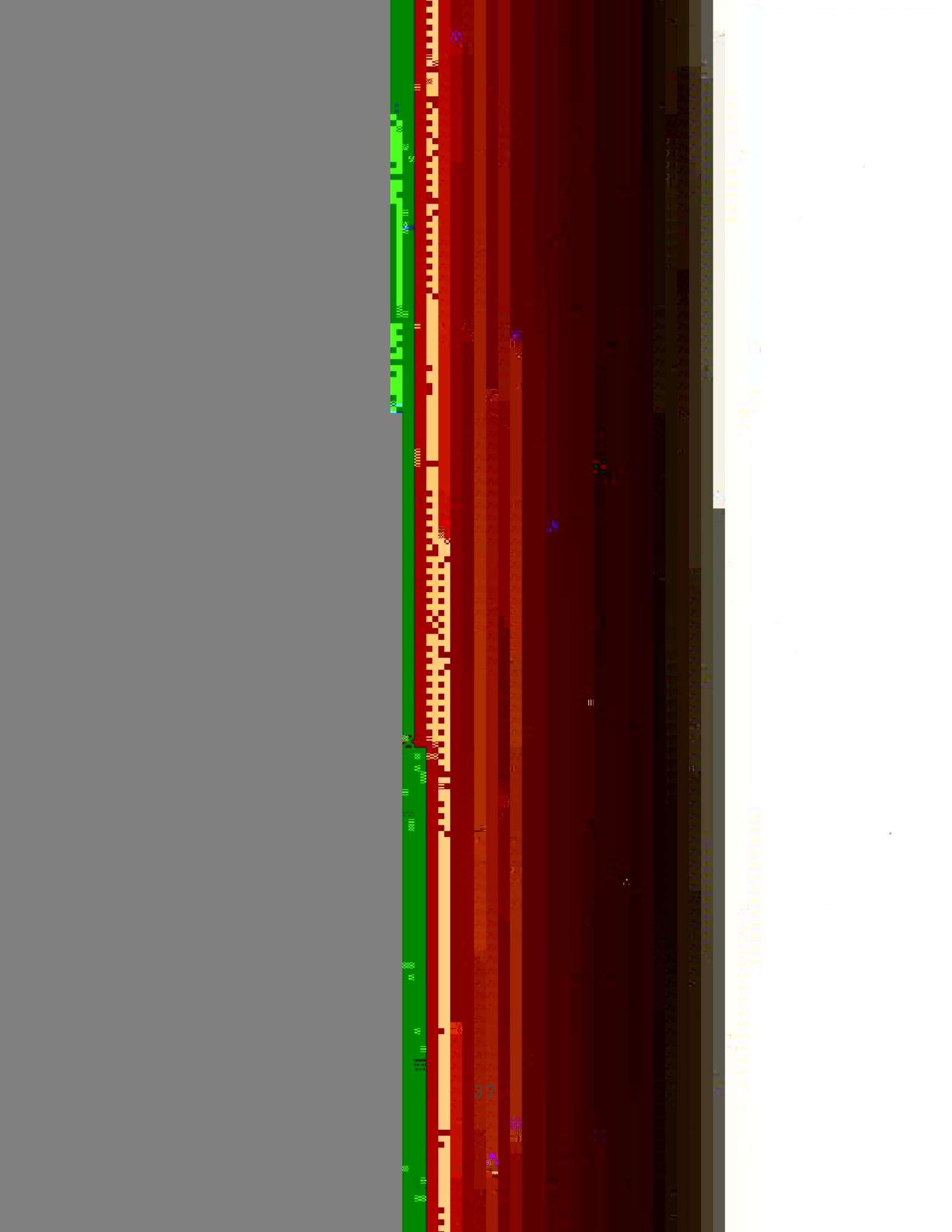


Fig. 3.6. Criteria for lift of a flat steel plate
(Per GE NEDO-10174⁹)

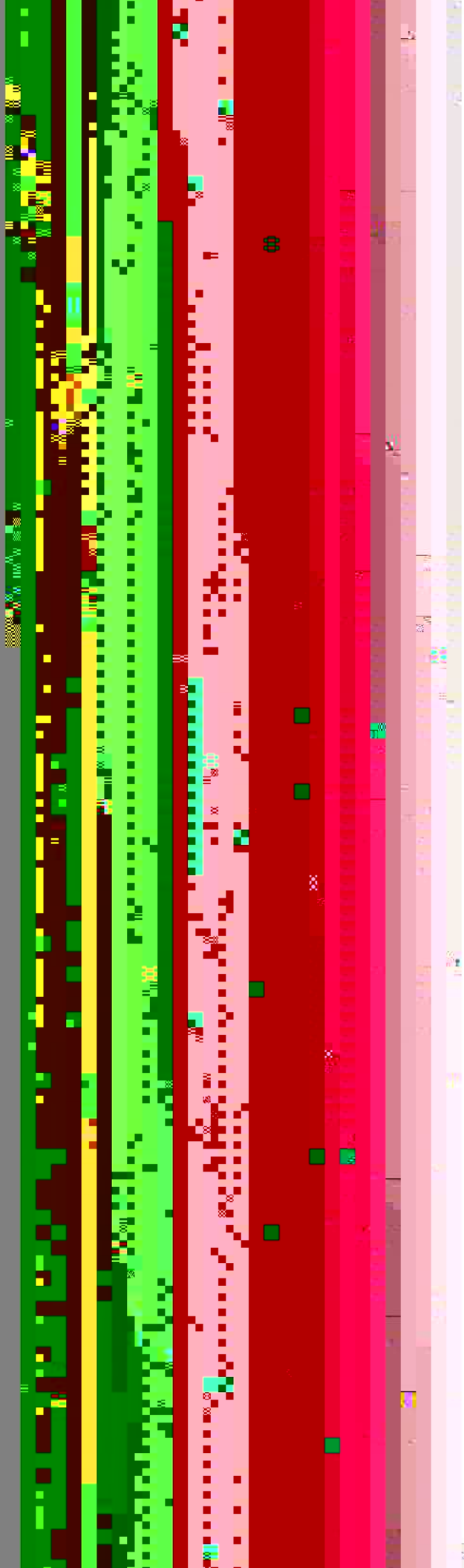




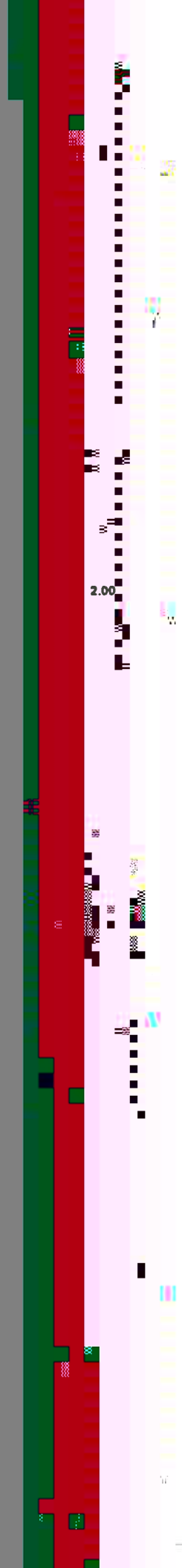




Technical Criteria of a Sensor¹⁴



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(4.1)

t of m with respect to accelerometer

(4.2)

(4.3)

$$\frac{d^2x}{dt^2} + 2\xi\omega \frac{dx}{dt} + \omega^2x = -a(t) \quad (4.4)$$

where

$\omega = \sqrt{k/m}$, circular natural frequency



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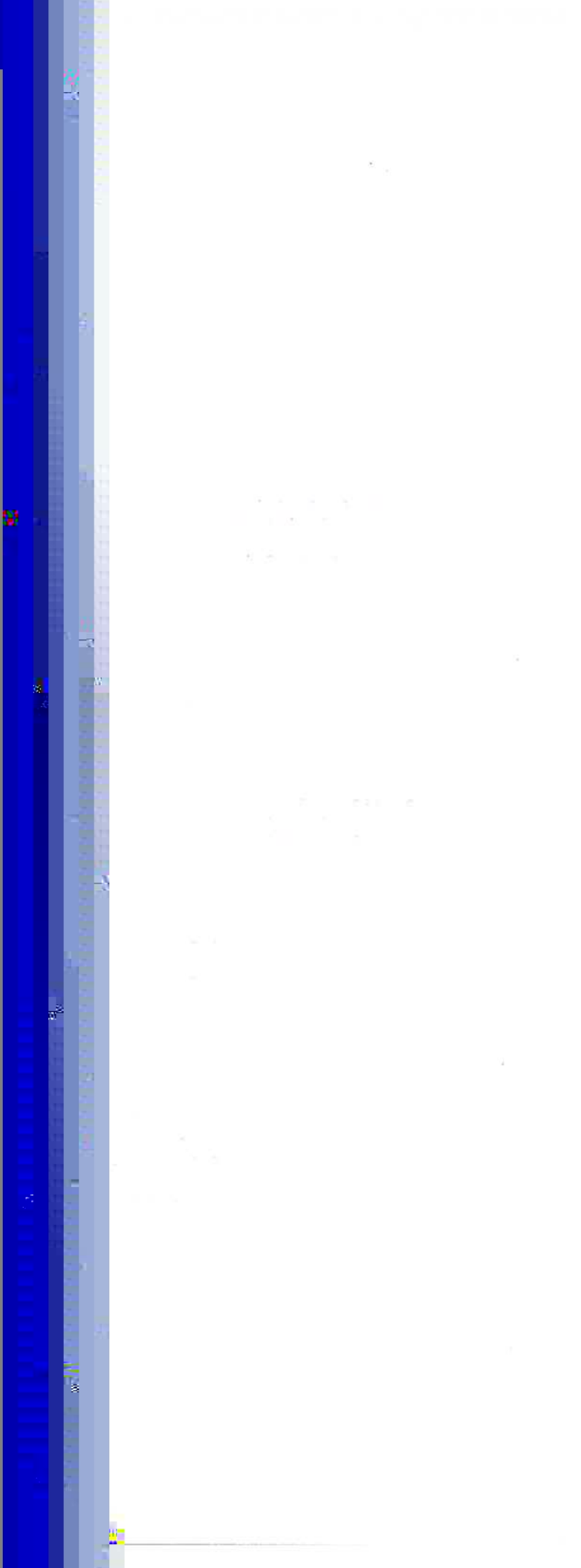
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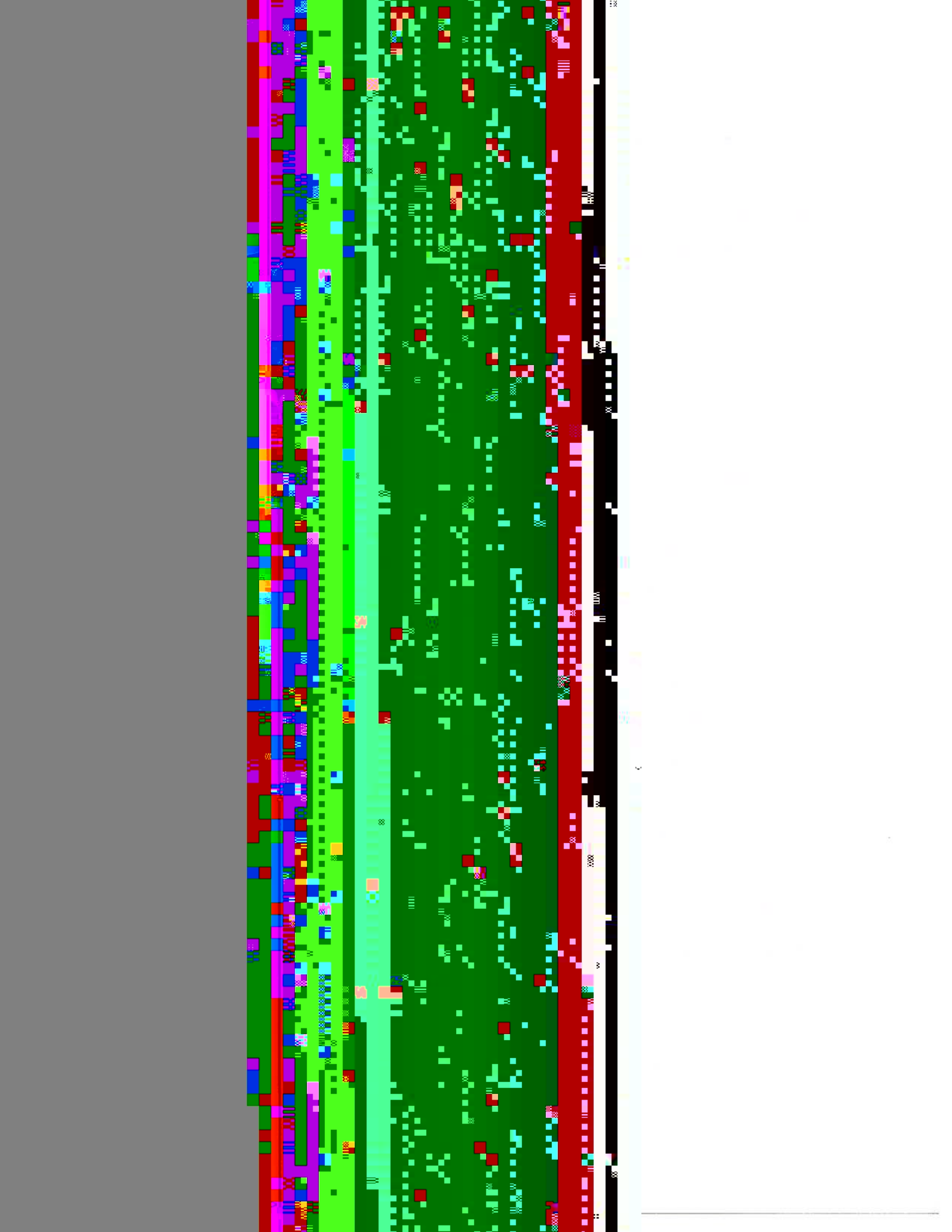
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Fig. 4. 6. Equivalent circuits for piezoelectric transducer system
(Per Shahrakhi¹⁵)

Fig. 4.7. A typical acoustic emission design
(Per Hill¹⁶)





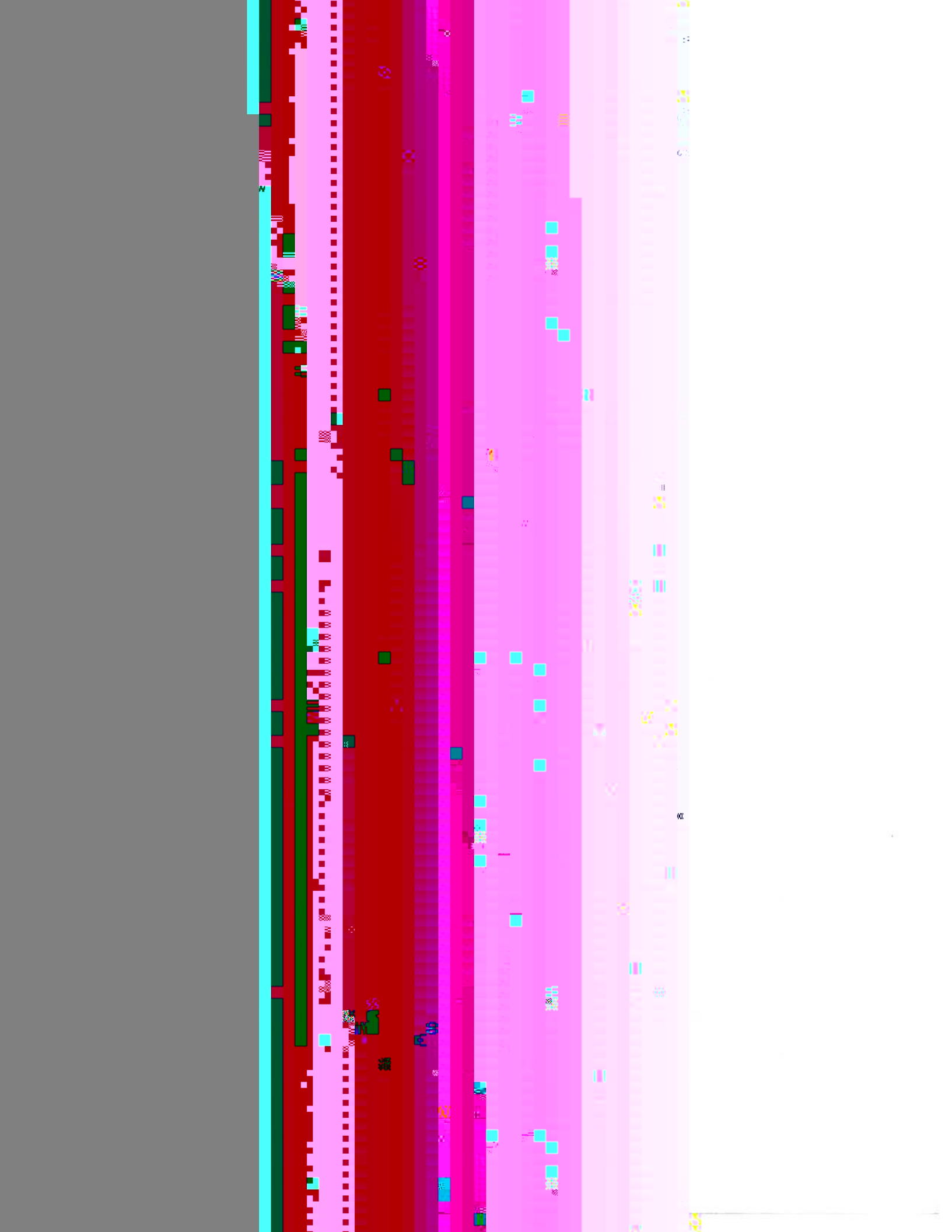


$$\alpha_{p5} = \frac{A_5}{A_1}$$

and the sound power transmission coefficient by

$$\alpha_{w5} = \left| \frac{A_5}{A_1} \right|^2 \frac{Z_1}{Z_5} \quad (4.8)$$

$$T_1 = C_2 C_3 C_4 C_5 T_5 \quad (4.9)$$





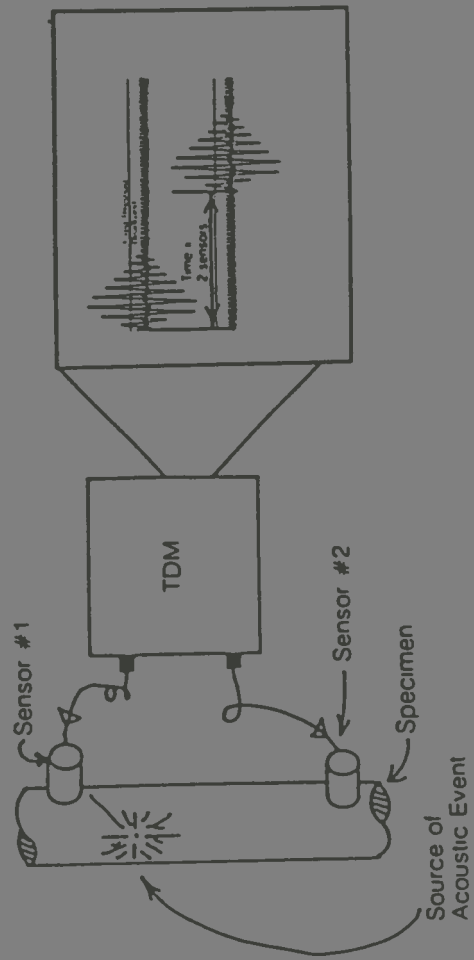


Figure 5.2 time difference module (Per AET20)



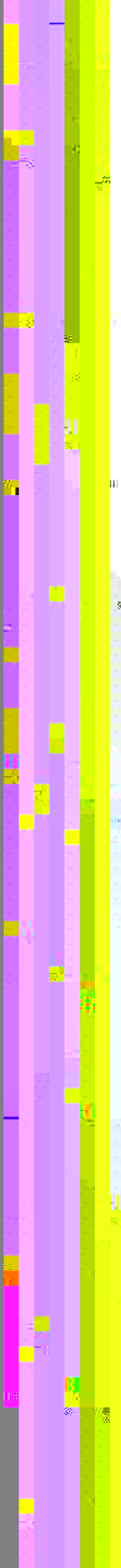
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(5.1)

$$f(\Delta L)_{ij} = \Delta t_{ij} * V \quad (5.2)$$



$$A_i = A_o / (\bar{r}_i)^j \quad (5.3)$$

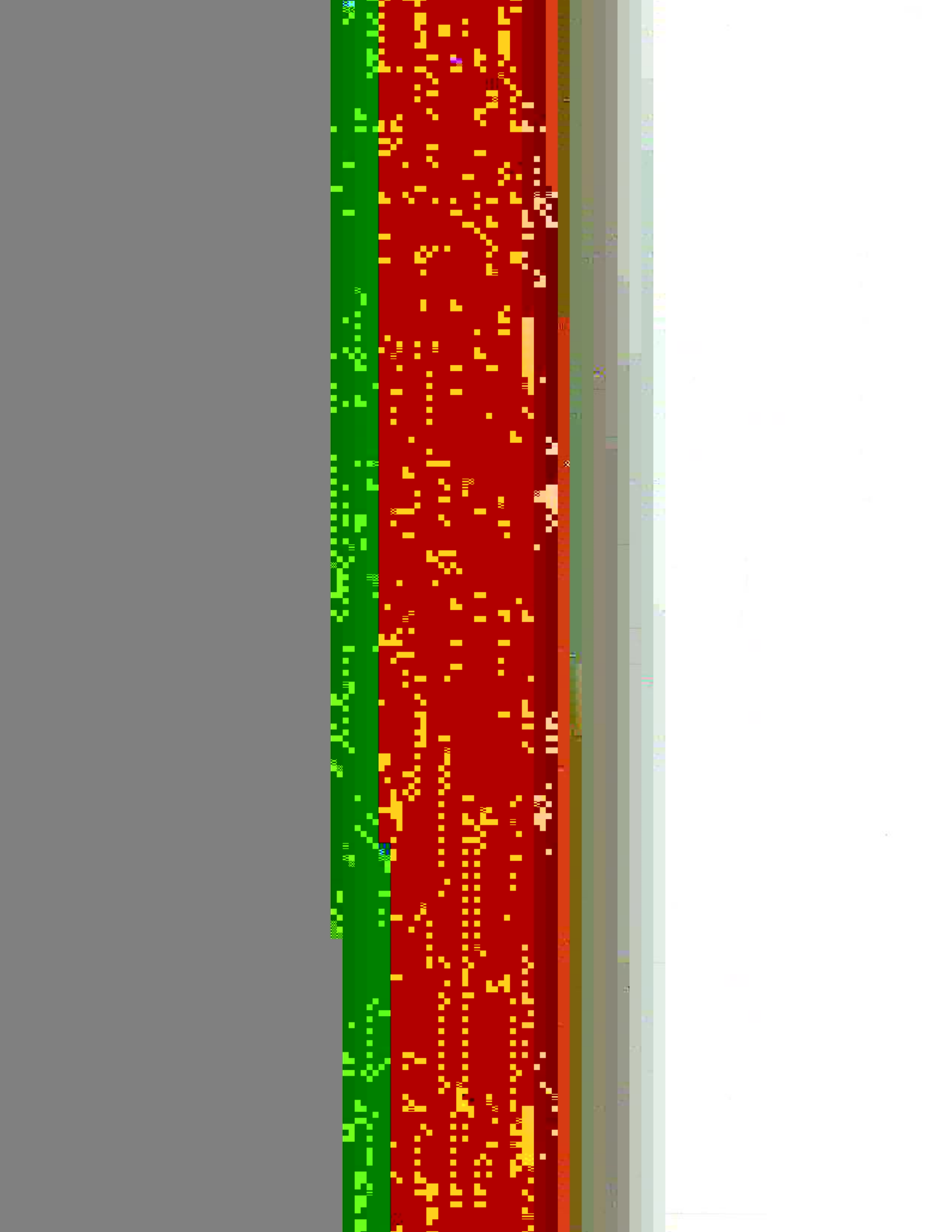


Fig. 6.1. Vessel for the subcritical reactor assembly

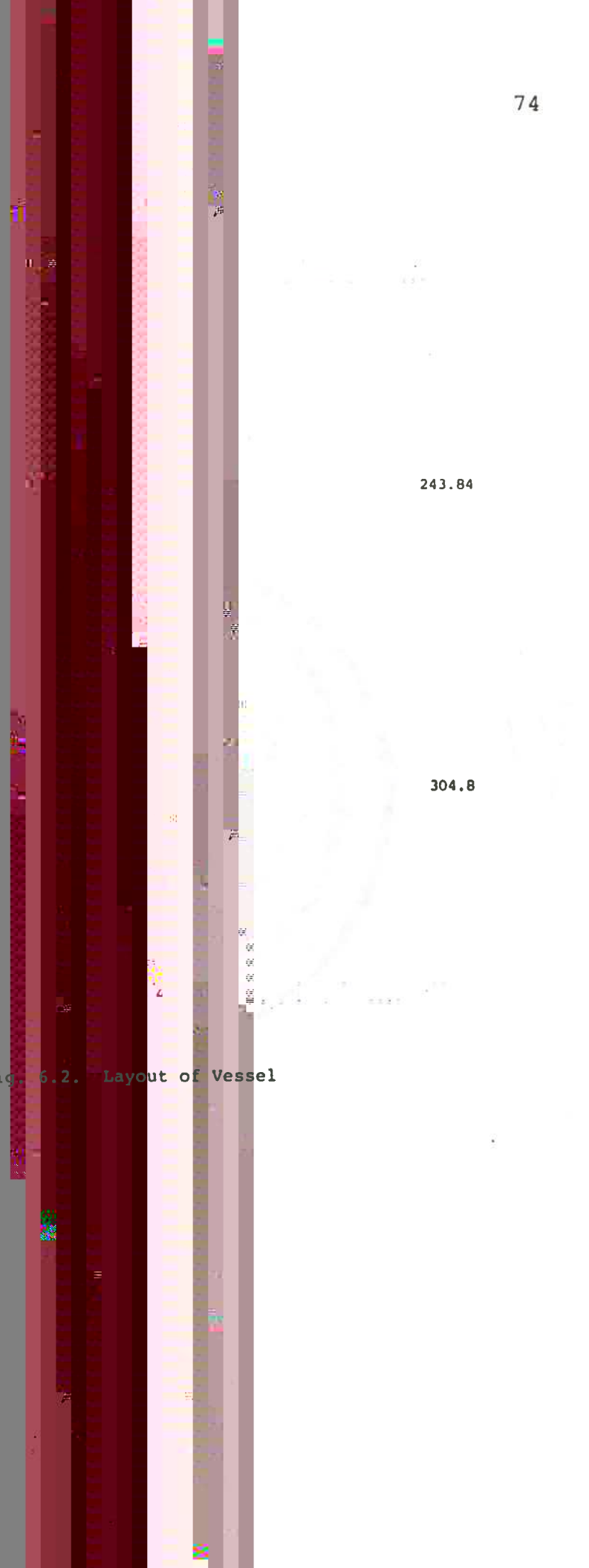


Fig. 6.2. Layout of Vessel

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Hose layout for boilin



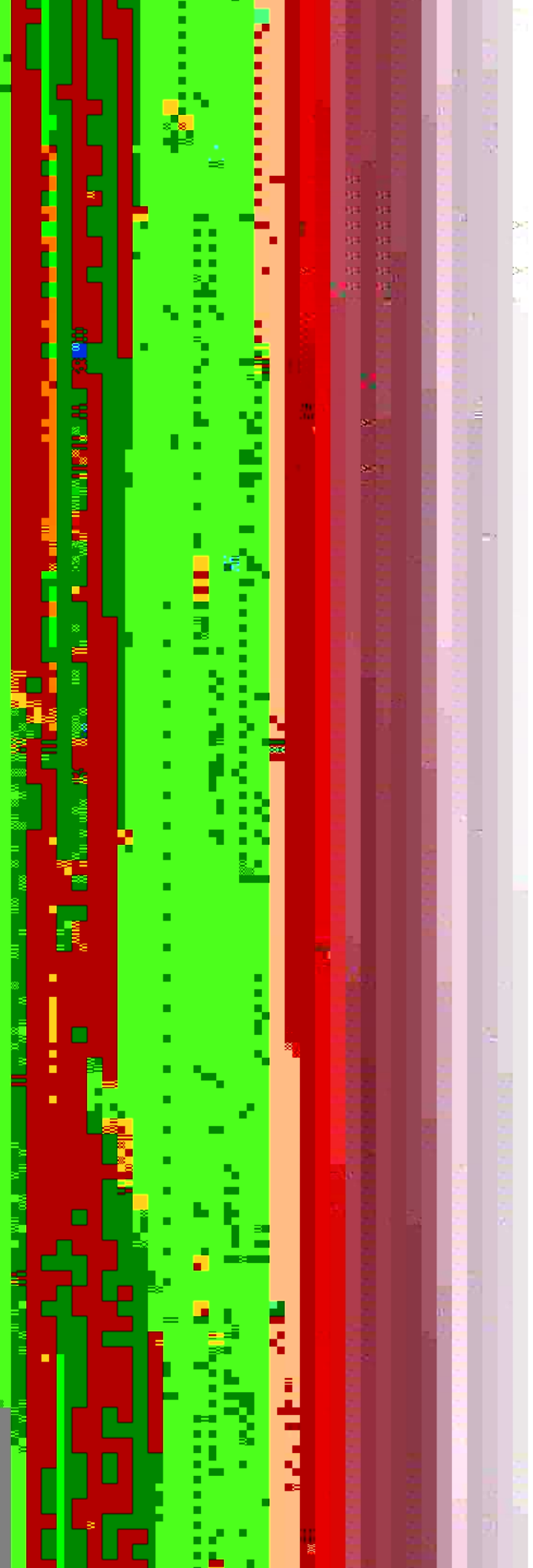
Fig. 6.4. Schematic diagram for data collection

Results and Discussion

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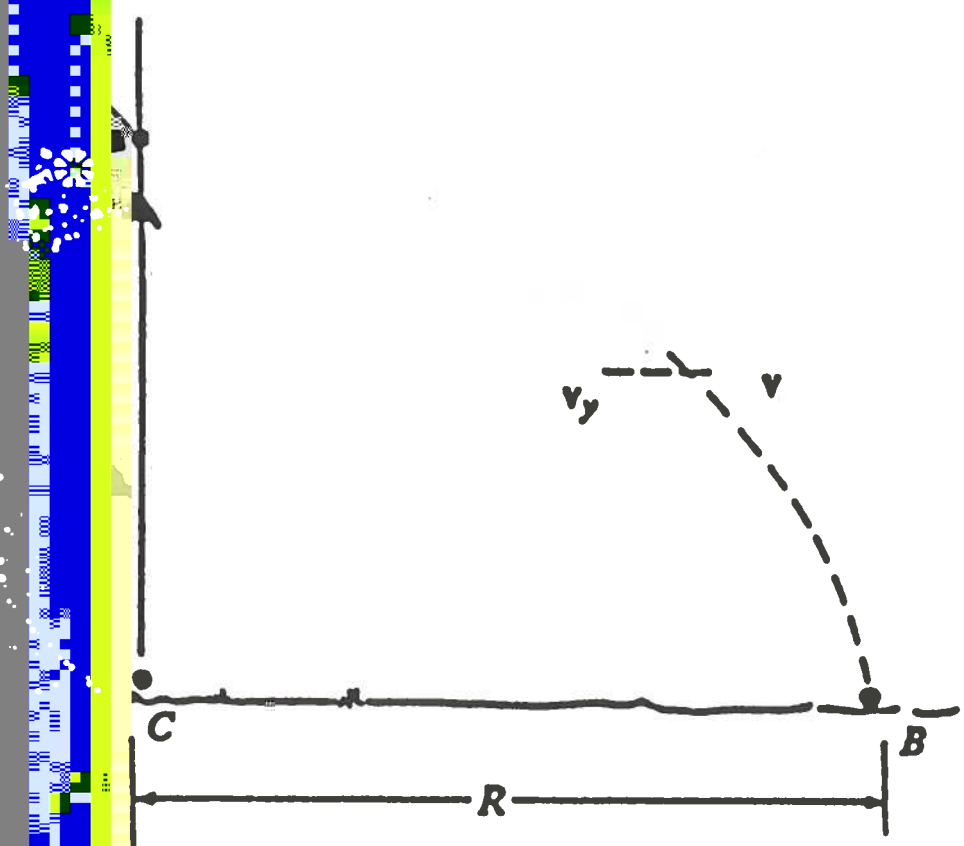
Fig. 6.5. Location of each zone on the vessel

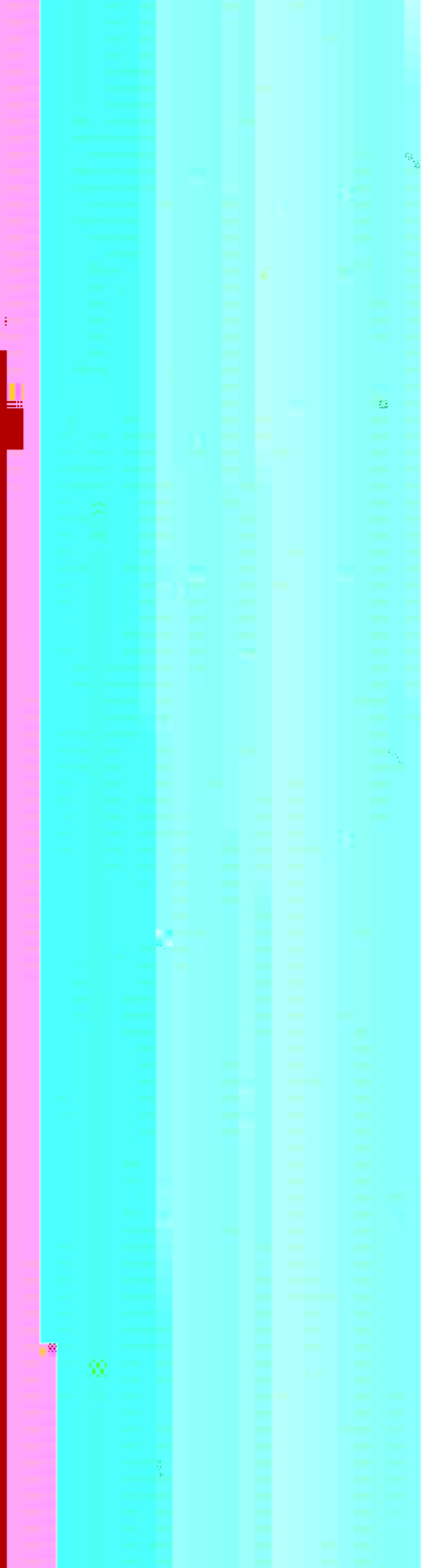


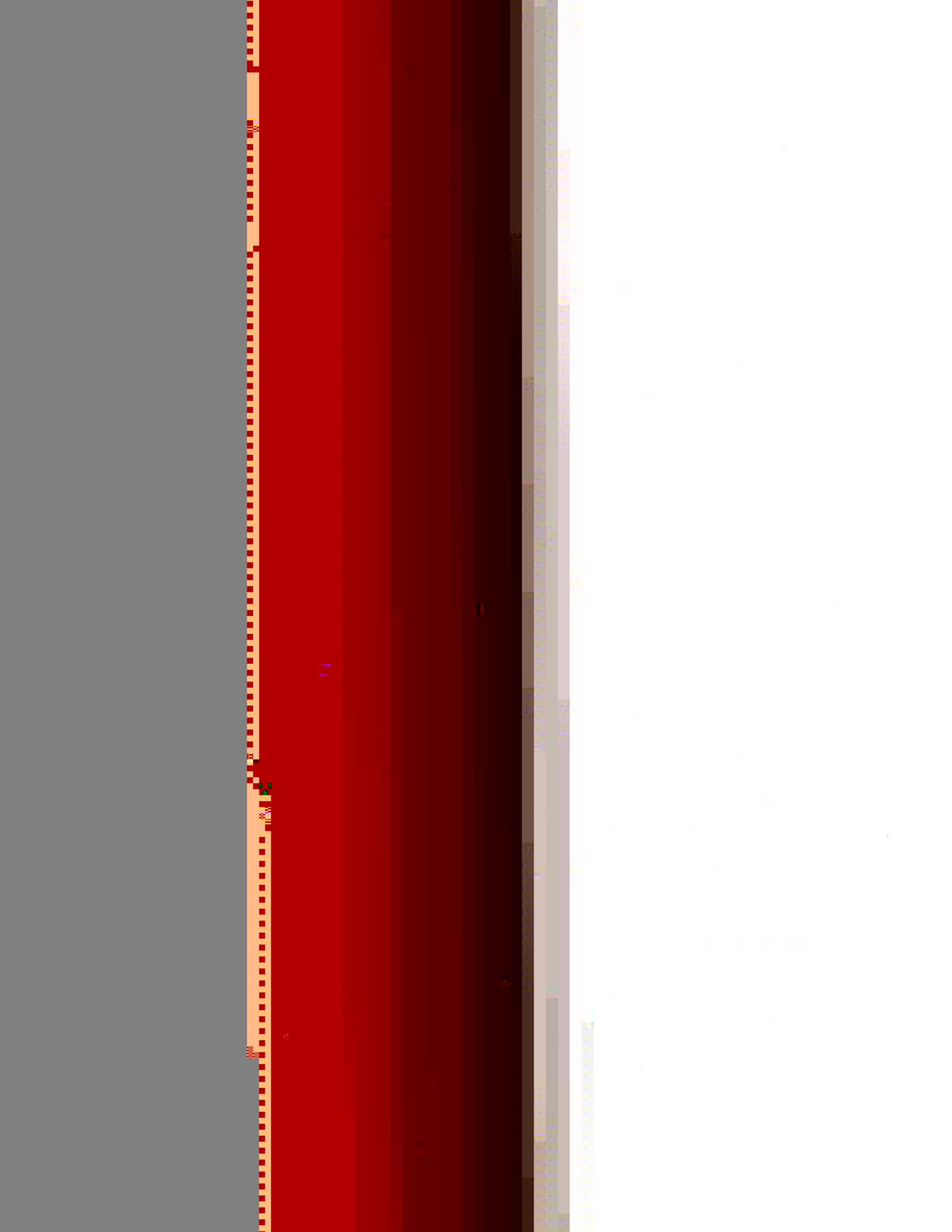
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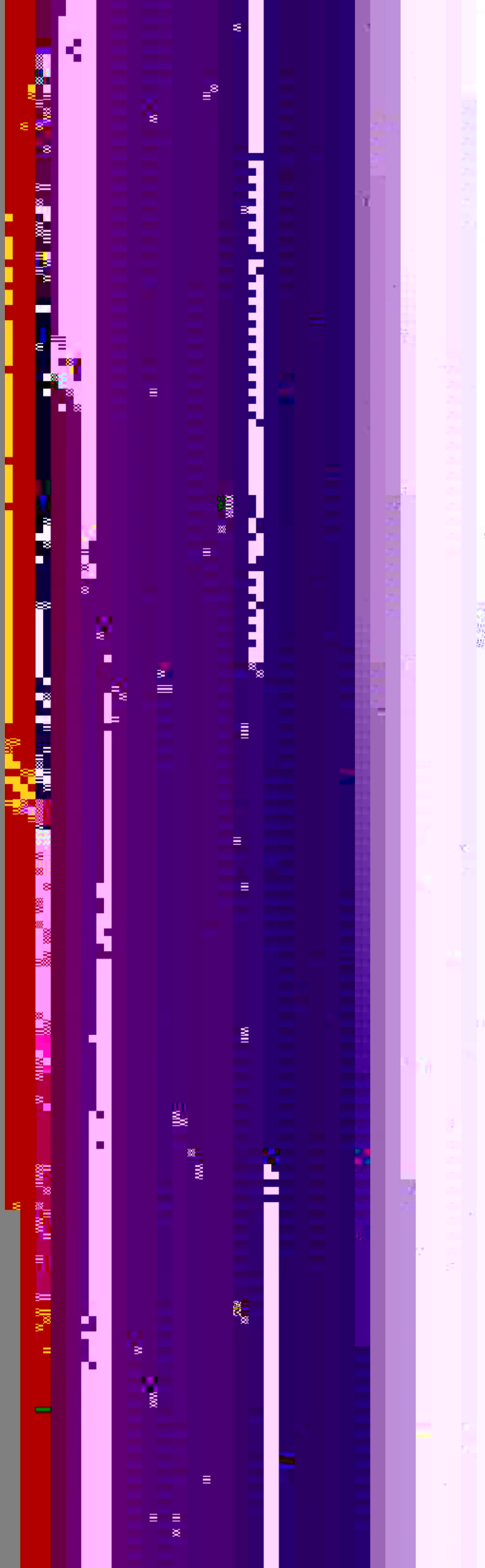
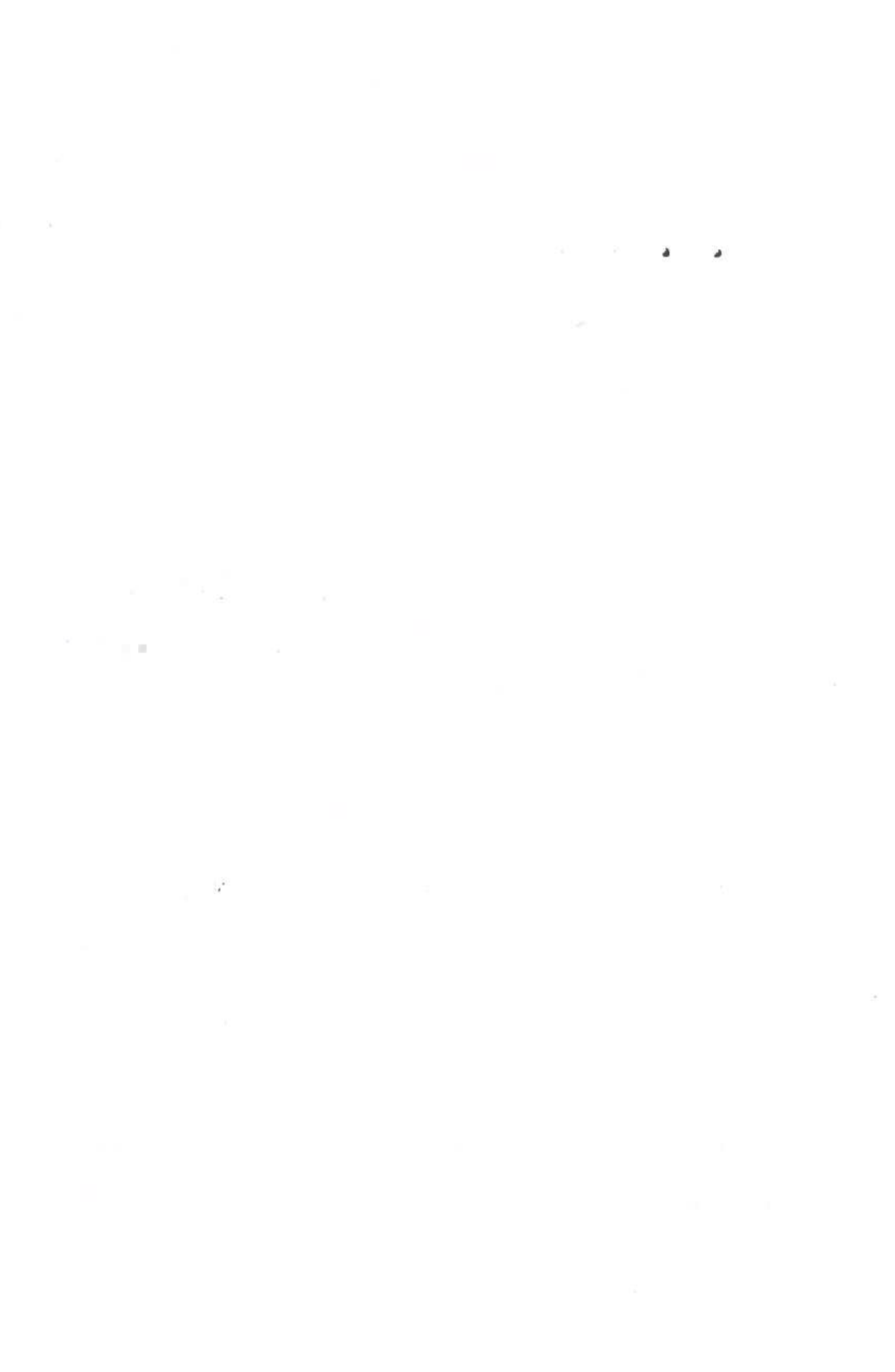


Table 6.3. Measured Velocity of Impact Wave in Vessel



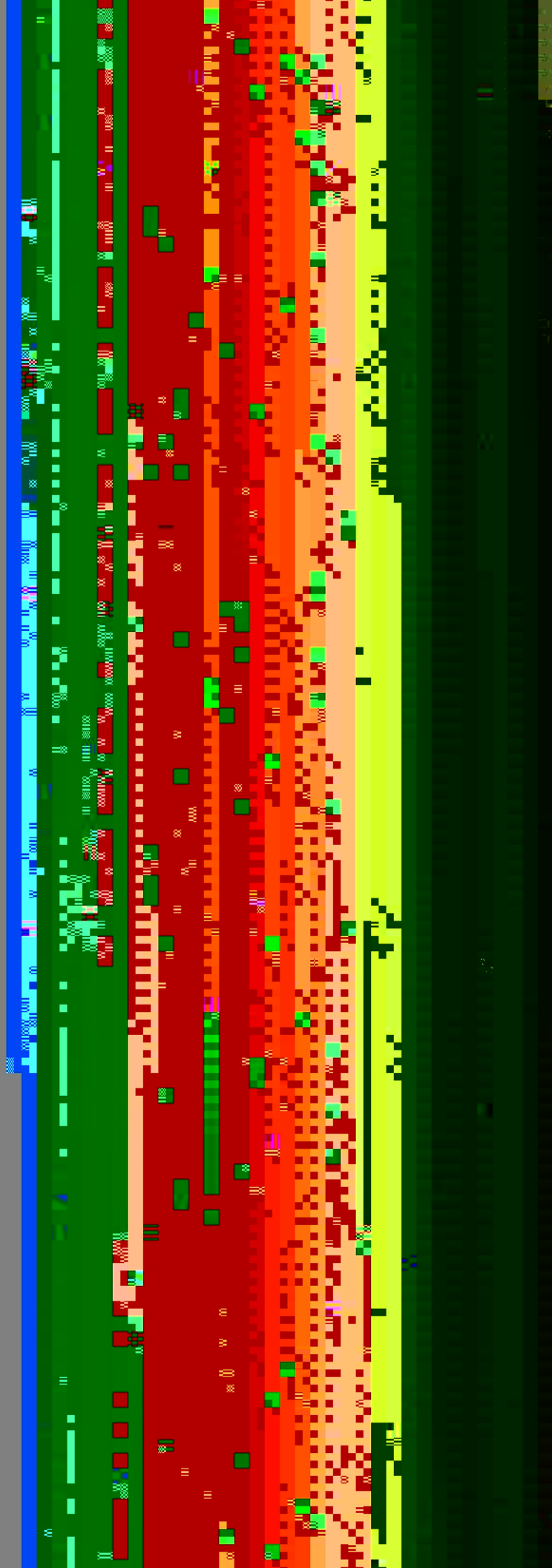
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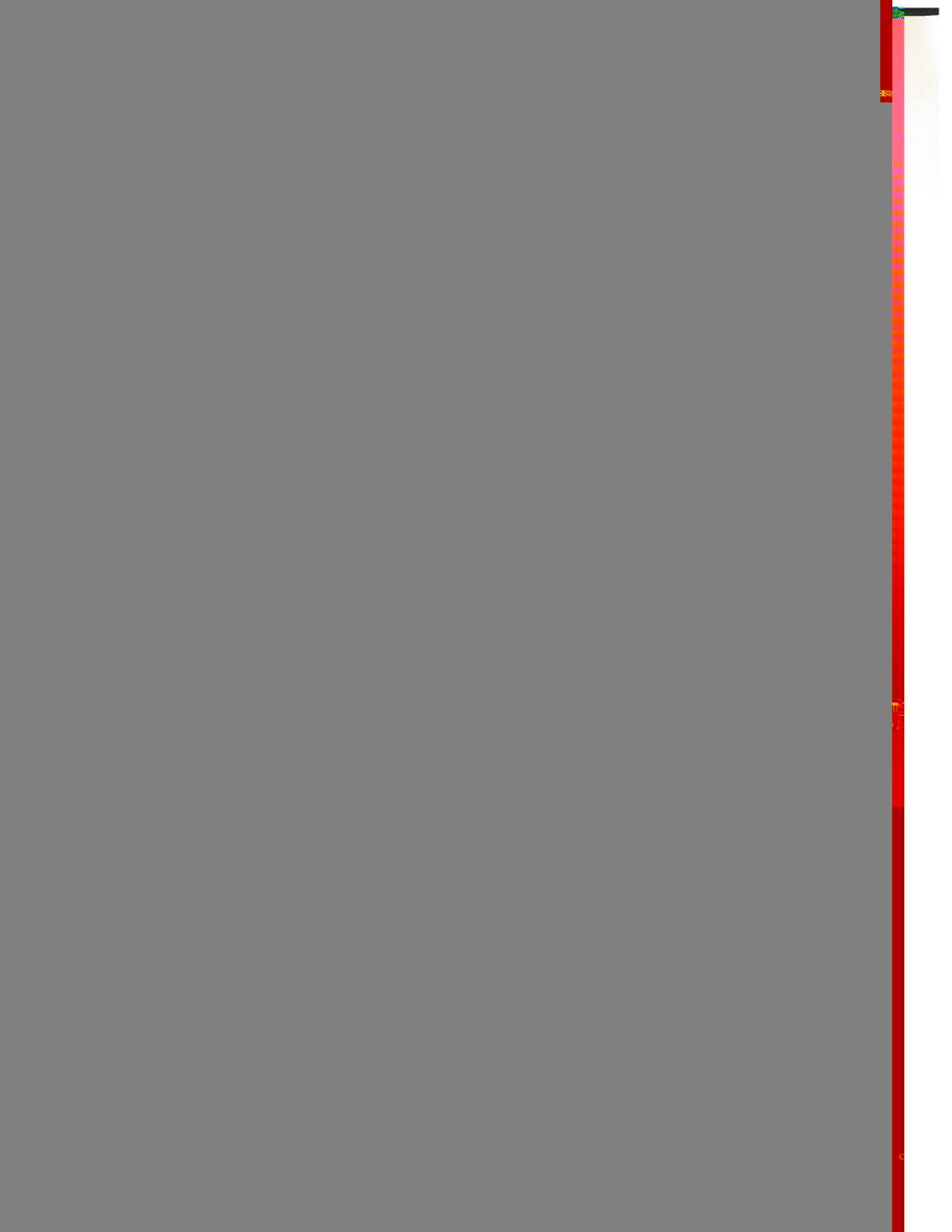
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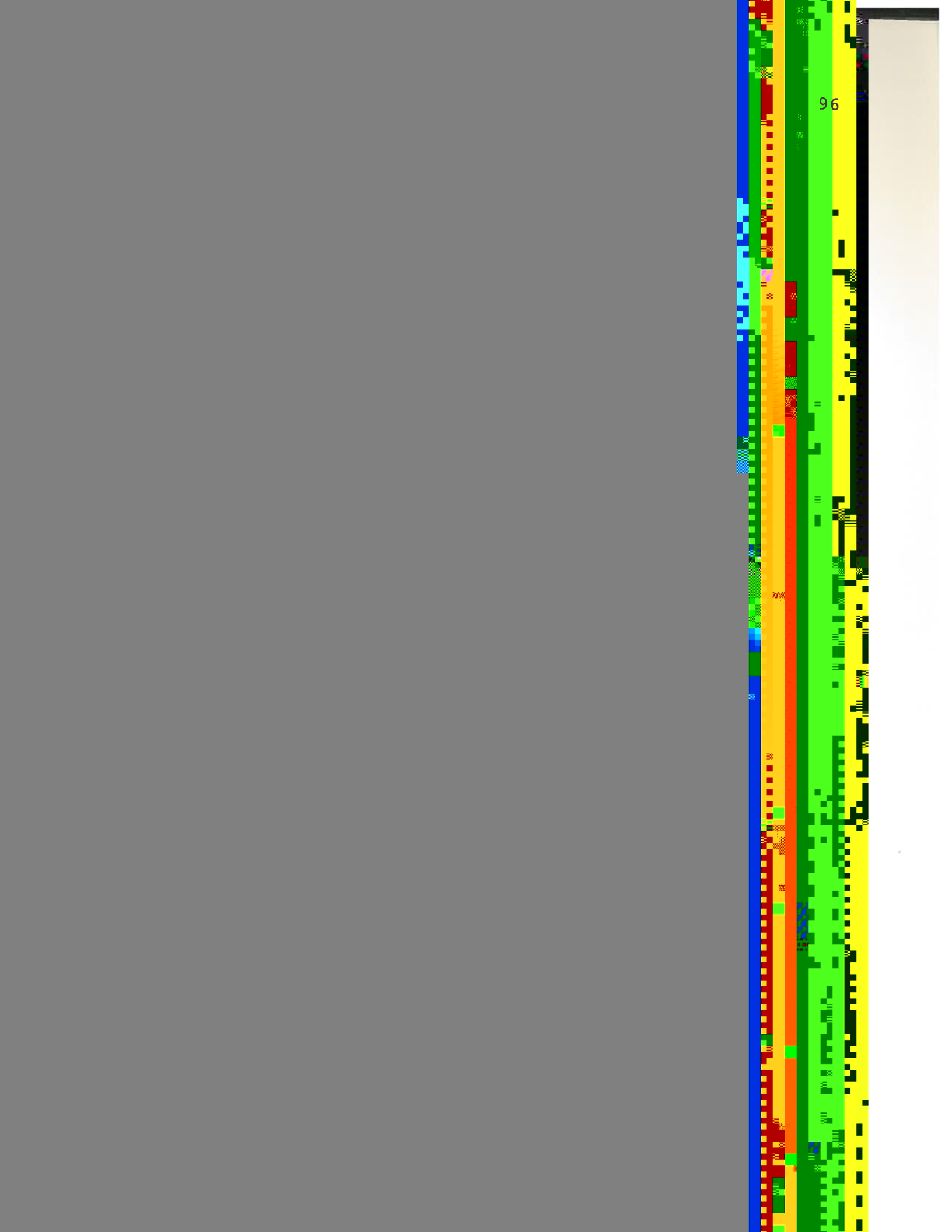
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n using ΔT method on the vessel full of water



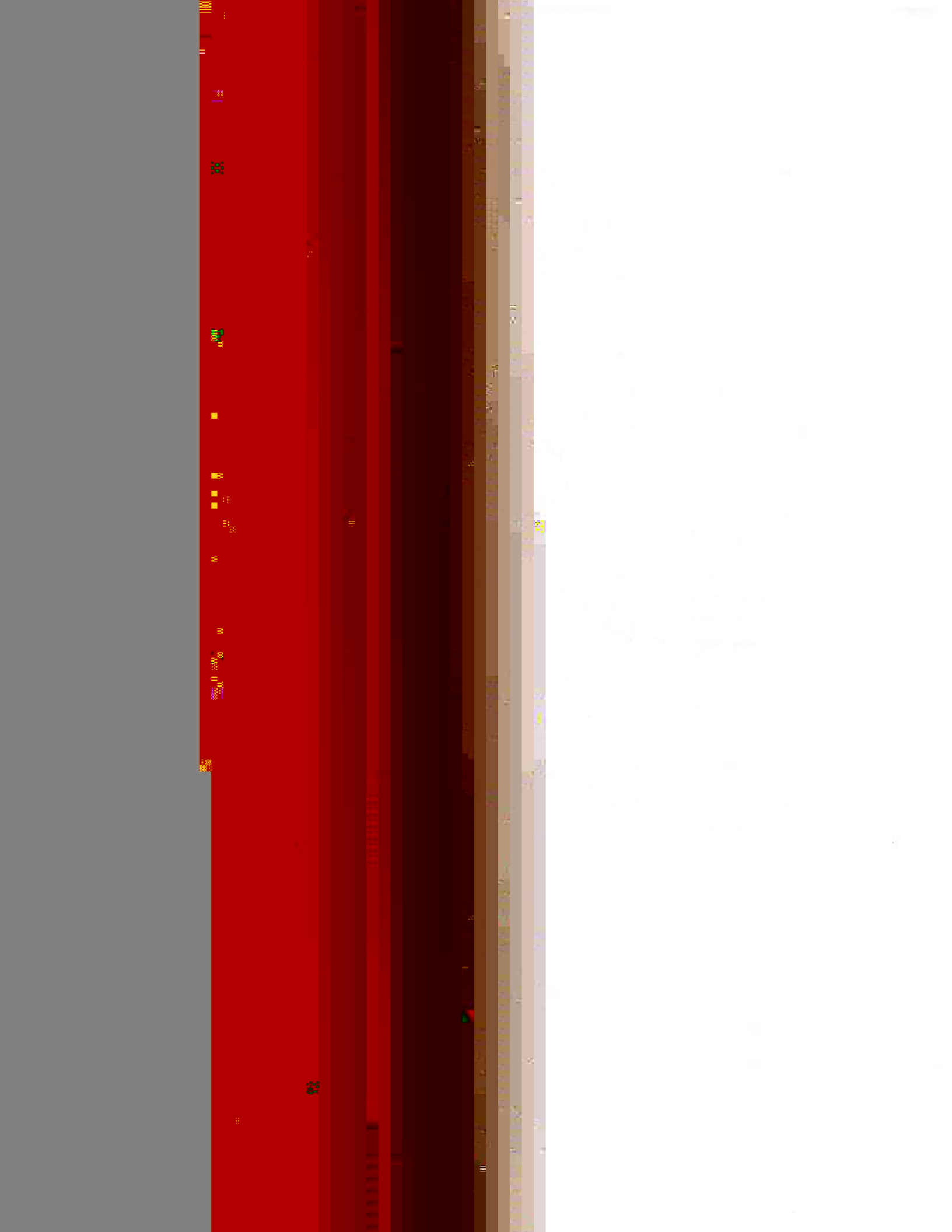


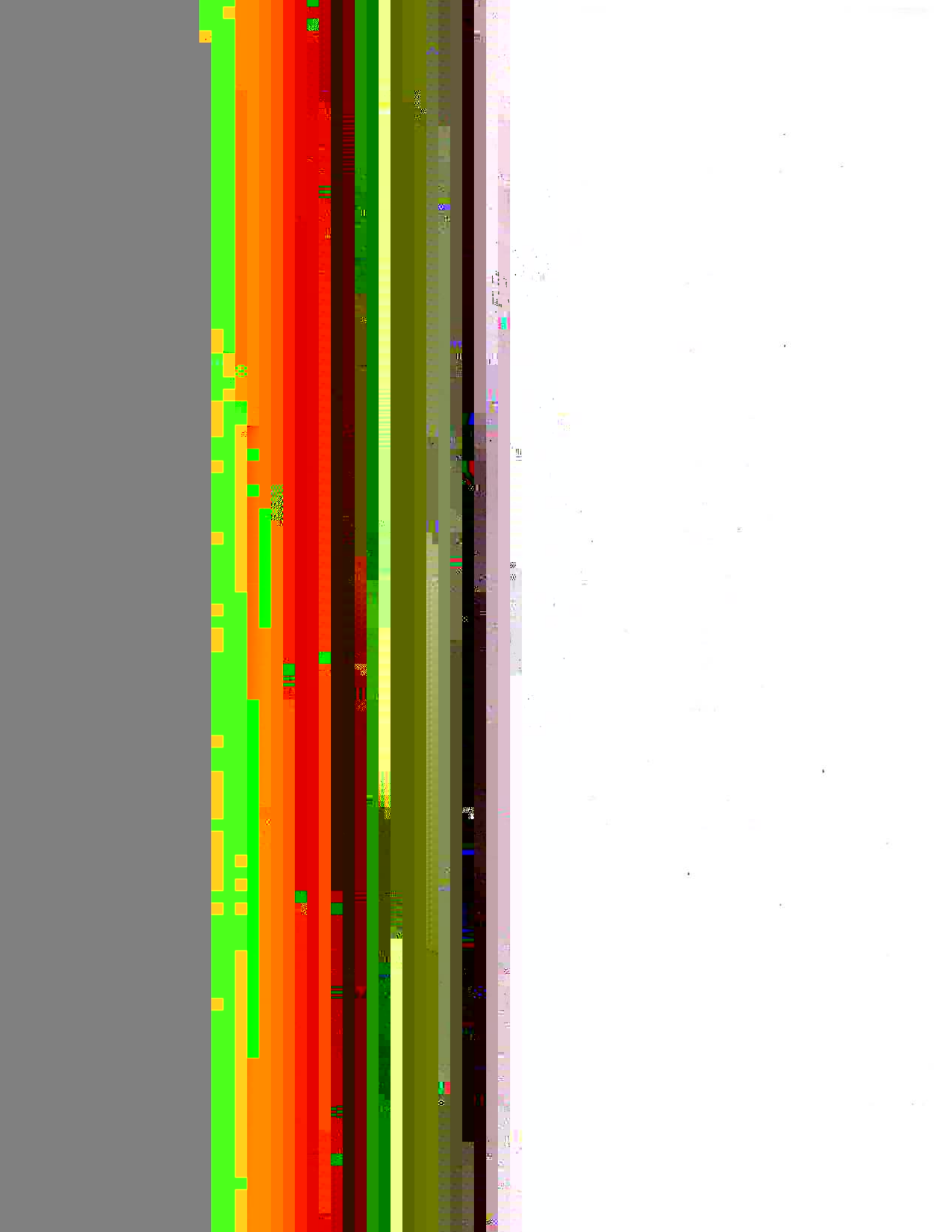


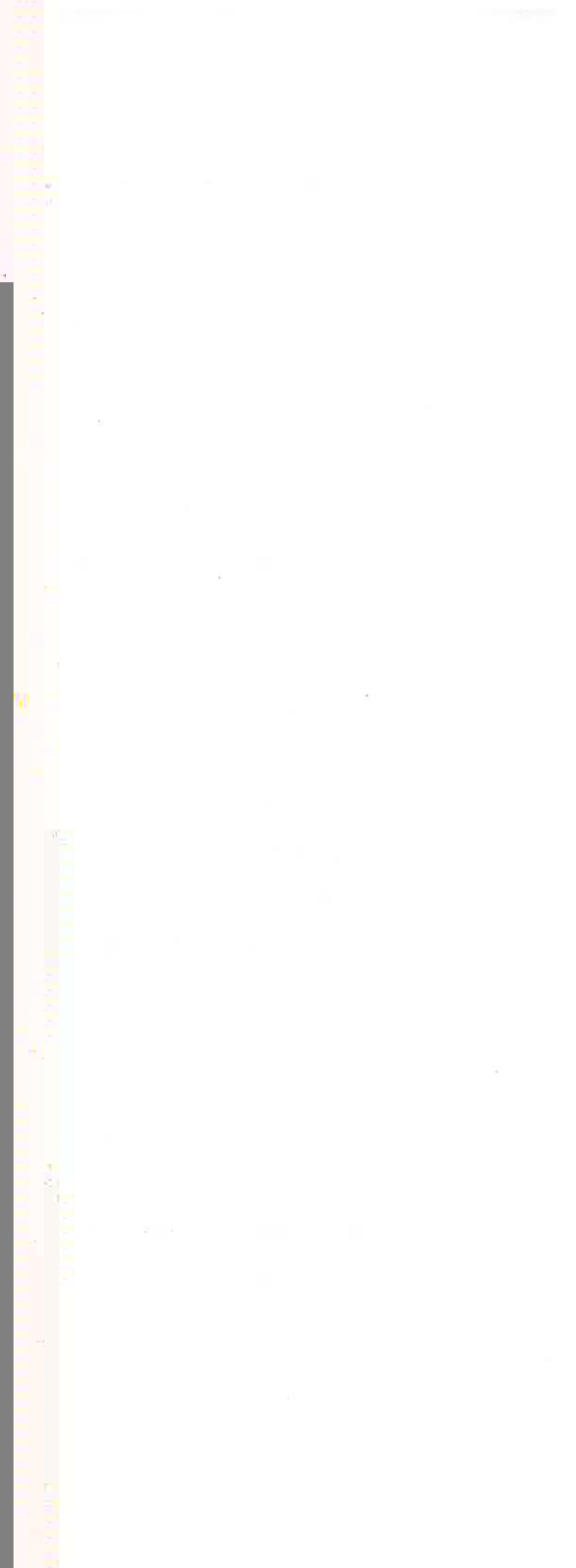




the parameters and conditions listed before. This method is very slow and impractical for impact location in industry.







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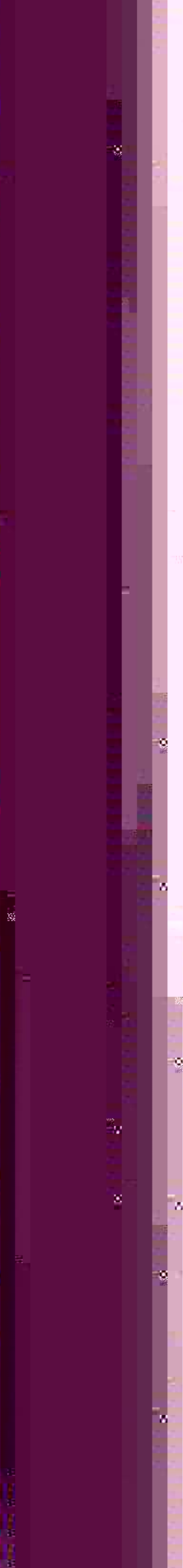
* See text for description of water rod

mv_2 and

here

(8.2)

$$\Sigma M_O = r \times \Sigma F = r \times m\dot{v}$$



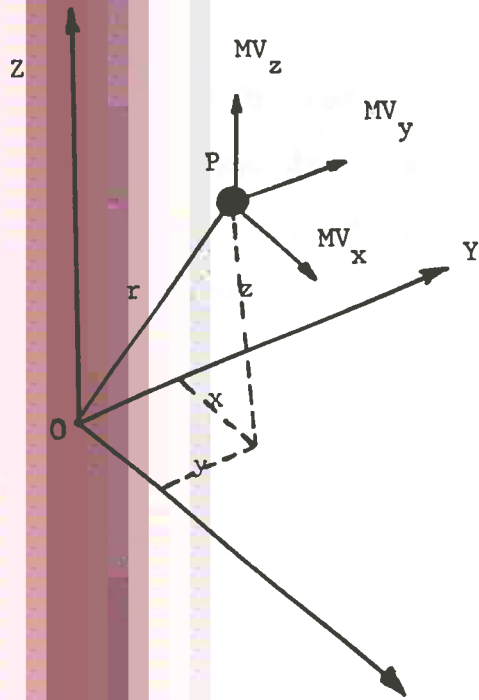


Fig. 8.3. Time dependent force during impact

during the restorati
 definition of e toge
 equation gives us

$$e = \frac{\int_{t_0}^t F_r dt}{\int_0^{t_0} F_d dt} = \frac{m_1 (-v_1' - [-v_0])}{m_1 (-v_0 - [-v_1])} = \frac{v_0 - v_1'}{v_1 - v_0} \quad (8.5)$$

Similarly for particle 2 we have

$$e = \frac{\int_{t_0}^t F_r dt}{\int_0^{t_0} F_d dt} = \frac{m_2 (v_2' - v_0)}{m_2 (v_0 - v_2)} = \frac{v_2' - v_0}{v_0 - v_2}$$

$$\Delta k = \frac{1}{2} \left(\frac{m_1 m_2}{m_1 + m_2} \right) (1 - e^2) (v_1 - v_2)^2 \quad (8.7)$$

The energy loss vanishes for the impact of completely elastic bodies, when $e = 1$.

3. Impulse quantity

The total impulse delivered to either body 1 or 2 is the change in the momentum:

$$(8.8)$$

$$G = \frac{1 + e}{1 + \phi} M_L V_O = \frac{1 + e}{1 + \phi} G_{INIT} \quad (8.10)$$



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Fig.



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$$\dot{\alpha} = n M a^{3/2} \quad (8.18)$$

where

$$M = \frac{1}{m_1} + \frac{1}{m_2} \quad (8.19)$$

if both sides of (8.18) are multiplied by α and the resultant equation is integrated the following results:

$$(\dot{\alpha}^2 - v^2) = -\frac{4}{5} M n \alpha^{5/2} \quad (8.20)$$

$$(8.21)$$

$$\frac{1}{2} m_1 v_1^2 = \int_0^{\alpha_1} P d \alpha \quad (8.22)$$



It has been shown that the pressure distribution over the area of contact is

$$q_{x,y} = q_0 \left[1 - \frac{x^2}{a^2} - \frac{y^2}{a^2} \right]^{1/2} \quad (8.27)$$

$$\frac{x^2}{a^2} + \frac{y^2}{a^2} = 1 \quad (8.28)$$

and therefore

$$q_{x,y} = 0 \quad (8.29)$$

$$q_0 = \frac{3P}{2\pi a^2} \quad (8.30)$$

Combining Eqs. (8.24) , (8.26), (8.27), and (8.30) and introducing polar coordinates, the following equation is obtained for the magnitude and distribution of the surface pressure:

$$\left(\frac{5v^2}{4nM}\right)^{1/5} \left[1 - \left(\frac{r}{a}\right)^2\right]^{1/2} \quad (8.31)$$

with Eq. (8.21) and integrating

(8.35)

(8.36)

$$\alpha = \alpha_1 \sin \frac{\pi t}{t_0} \quad (8.37)$$

or, substituting Eq. (8.36) for t_0 ,

$$\alpha = \alpha_1 \sin \frac{\pi t v}{2.94 \alpha_1} \quad (8.38)$$

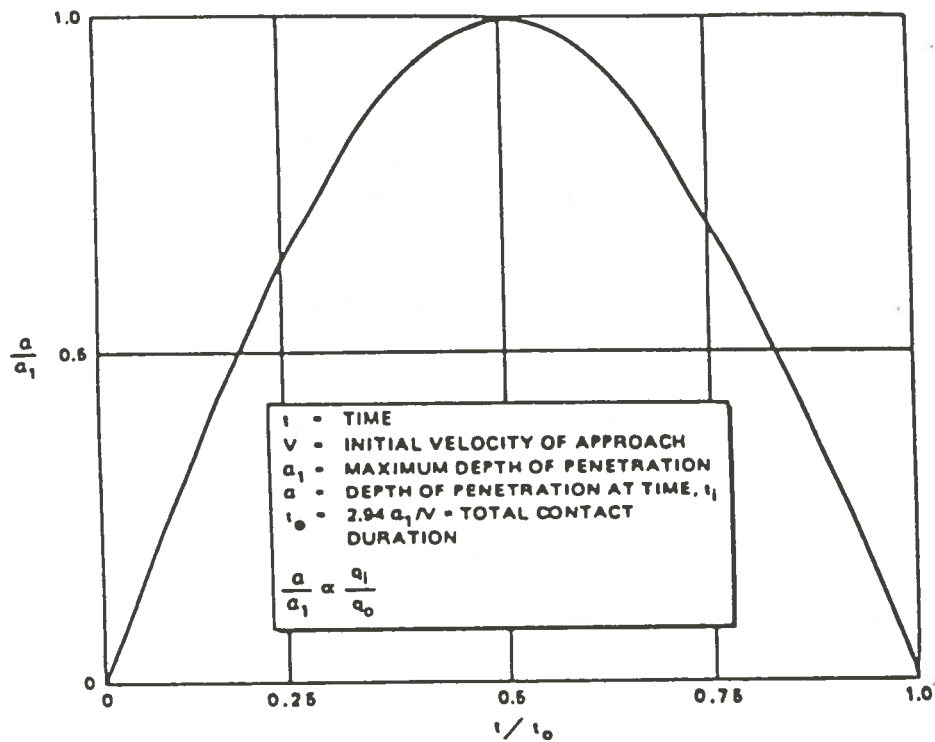


Fig. 8.5. Generalized pressure-time relationship for a particle impacting a target. (Per Zukas²⁷)

$$+ \mathcal{L}^{-1} \left[\frac{3}{2(1+s^2)} \right] q_0(t)$$

The first part of the document
 discusses the importance of
 maintaining accurate records
 for all transactions.

This section outlines the
 procedures for handling
 incoming payments and
 outgoing disbursements.

It is essential to ensure
 that all entries are
 supported by appropriate
 documentation.

The following table provides
 a summary of the key
 components of the system.

Regular audits should be
 conducted to verify the
 accuracy of the data.

Any discrepancies should
 be reported immediately
 to the management team.

The system is designed to
 provide a clear and
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 organization's financial
 performance.





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The first part of the paper discusses the importance of the
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 the implications of the findings. The fifth part concludes the
 paper.



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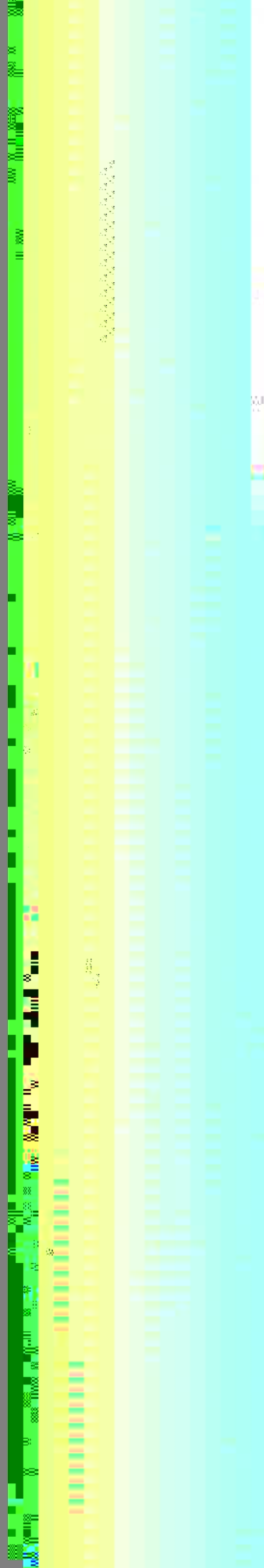
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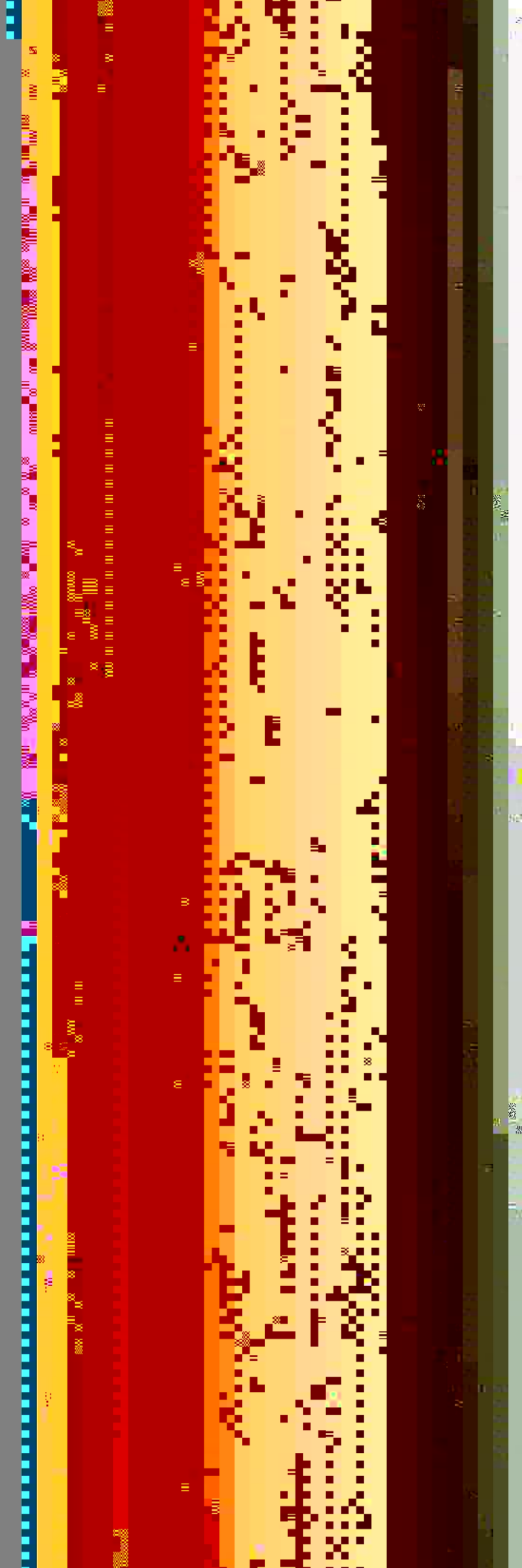
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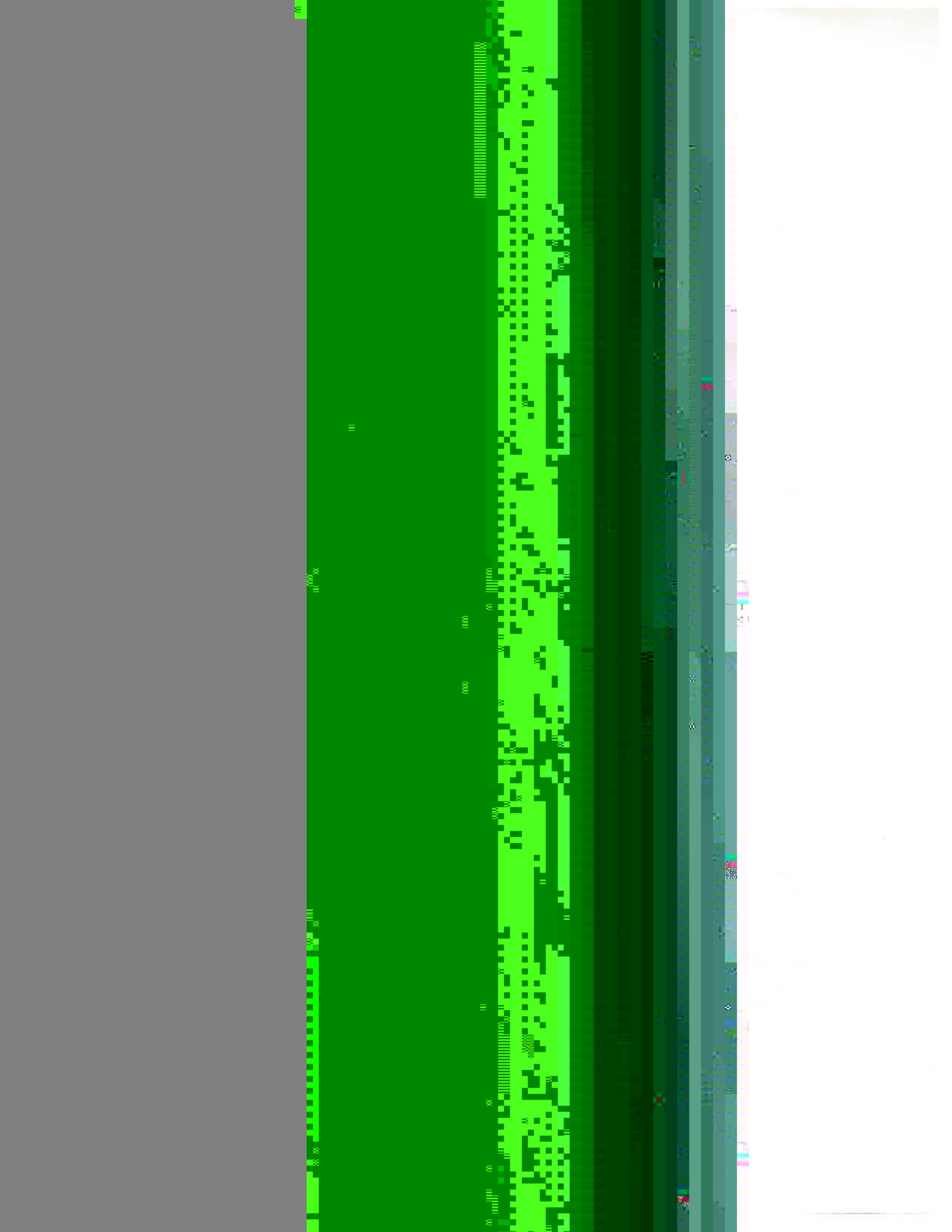
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Page 1

The algebraic derivation of the integral of the function $f(x) = x^2 + 3x + 2$ is as follows:

$$\int (x^2 + 3x + 2) dx = \frac{x^3}{3} + \frac{3x^2}{2} + 2x + C$$

where C is the constant of integration.

The integral of the function $f(x) = x^2 + 3x + 2$ is $\frac{x^3}{3} + \frac{3x^2}{2} + 2x + C$.

Respectfully,
[Signature]

Dr. [Name]
[Title]
[Institution]

$$\Delta T_i = \tau_{A_i} - \tau_{B_i}$$

$$\overline{\Delta T} = \frac{1}{N} \sum_{i=1}^N \Delta T_i$$

τ_{A_i}, τ_{B_i} = impact time to the i th accelerometer
from impact A and B, respectively.

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Parallel Lines

Two lines are shown on a coordinate plane. The lines are parallel and have a positive slope. The lines are separated by a constant vertical distance.

The lines are parallel and have a positive slope. The lines are separated by a constant vertical distance.

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