

A Head that Belongs to the Space

Head and Sense Perception in Somatic Movement Education

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ABSTRACT Authors Kevin Frank and Caryn McHose discuss the essential role of Rolf Movement Integration in ‘putting the head on the body’. This article discusses the role of the movement brain, tonic function, somatic imagination, haptic touch, and receptive senses to creating “a head that belongs to the space.” They provide several exercises for work on the table, seated, or standing through a structural or movement series.

The head and senses play an essential role in all forms of somatic movement education. The head and the senses are, among other things, important channels of orientation. Orientation is central to perception; patterns of perception, in turn, shape our posture and how we move. Rolf Movement Integration (RMI) teaches people how perception supports meaningful change in their quality of movement. RMI is a brand of somatic movement education based, in part, on Dr. Ida Rolf’s methods for integrating structure. RMI aims to integrate structures that shape human movement. RMI includes a ten-session series [parallel to the Ten Series of Rolfing® Structural Integration (SI)] and posits that we see structure integrate when motor patterns and stability express what Rolf called “normal.” Normal has specific

meaning in the Rolfing and Rolf Movement traditions. Normal denotes Rolf’s specific vision and philosophy for human potential. An example of normal: an integrated body will elongate, rather than shorten and compress, as that body meets challenge.

Rolf Movement is taught through perceptual and coordinative strategies, as well with touch skills that educate and facilitate a client’s or student’s discovery process. The ‘head and senses’ theme of this issue lends itself to illustrate the RMI perceptive/coordinative approach.

Rolf’s ten-session ‘Recipe’ is a useful starting point to consider Rolf Movement in its view of the head and senses. Rolf proposed that session seven, the so called ‘head session’ of her Ten Series, is particularly integrative. The proposal is

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sound, her reasoning logical. Rolf referred to the head as the body's 'upper pole'. Integration of head function is vital for integration of the entire axis, helping the axis find freedom from the girdles and highlighting that the axis should behave as a coherent system. The upper pole steers the body in many ways. Devoting a session to the upper pole is wise.

We propose that helping a client cultivate the body's upper pole as an integrative element is not something to delay until session seven. It is efficient to introduce upper-pole integration at the beginning of a series to some degree and whenever possible. Early introduction provides the greatest chance to reinforce upper-pole learning throughout the series. Each step of the Ten Series and each step of the client's self-care benefits from including upper-pole orientation.

It is worth noting that taking time for integration is its own challenge. Integration can, by default, become a lesser priority in the learning and doing of a traditional Ten Series – differentiation can more easily occupy a practitioner's attention. This is understandable, but also remediable. We refer the reader to an article on this topic by Frank and McCall (2016): the question of what constitutes integration and how it is evoked merits attention.

Ways of introducing integrative head orientation early in the series is the primary subject of this article. We start with an overview of how perception and orientation fit into motor pattern education and into Rolf Movement in general.

The Movement Brain and the Matrix of Action Space

Our movement – all our movements and functions – is choreographed by a complex system of nested feedback loops and mechanisms. This system can, for convenience, be called the 'movement brain'. The movement brain is largely comprised of the non-conscious, sensory-motor brain areas, in contrast to the

representational brain with which there can be various degrees of conscious participation. However, the two brains overlap and 'speak' to each other; this inter-brain conversation is, effectively, central to somatic movement education.

Depending on a vast array of information, the movement brain maintains an imagined representation of the body, as well as the space around the body – all places the movement brain anticipates, and thus manages, its potential for movement. Body and its spatial environment are not considered as two separate things but are mapped as a unified territory in the movement brain. All parts of the body and its surrounding space are, neurologically, a matrix of imagined locations. The body is urgently concerned with maintaining and refreshing this matrix, keeping it up to date, moment by moment. RMI calls this matrix, a matrix of 'action space'. Positing a matrix of action space provides an updated premise for structural work: ultimately, we learn to see and evoke change in the client's imagined matrix of action space. Structural work concerns the dynamics of movement brain imagination.

The movement brain's urgency to update its maps of action space derives from the prime directives that the human body has evolved to fulfill. The survival priorities of a human being can for illustration purposes be reduced to the following: stay upright, get lunch, do not become someone else's lunch, seek opportunities to make connection, and reproduce. To provide a basis on which to meet these priorities (as well as life's other activities), the body uses automatic mechanisms to reinforce/refresh its matrix of action space. This part of the equation works rather well unless something gets in the way. What gets in the way?

Human beings have additional tendencies and vulnerabilities, apart from survival and proliferation. The movement brain's job is, in the modern world at least, easily interrupted by events that impact our meaning making: thoughts about

what we want to have happen and what we do not want to have happen. Life is accompanied by injuries, and other events that cause interruptions to normal function. Interruption, in this discussion, refers to the body afflictions for which people seek therapeutic help. The field of structural integration can be thought of as an inquiry into how to interrupt the interruptions to healthy function, so that the body can operate normally. We strive to help people climb out of acquired errors in their "operating codes," errors which become impediments to natural movement intelligence.

A central feature of what can be offered to help people interrupt their interruptions (interruptions to normal) is to teach clients to pay conscious attention to the things the body needs to keep up to date anyway. Bodies appreciate the support. Repeated experience suggests that bodies restore normal stability and improved function when they are reminded to interrupt interruptions with healthy information. What constitutes healthy information?

Tonic Function

Rolf Movement includes what is known as the Tonic Function Model (Frank 1995, Newton 1995), a name that derives from the work of French physiotherapist Raymond Sohier, some of whose ideas are part of Hubert Godard's Tonic Function Model. The Tonic Function Model now represents a major innovation within somatic movement education. The model includes a series of provocative ideas for structural work, including a critical examination of the concept of structure – structure that Rolf taught people to integrate.

One idea is that structure does not, for our purposes, mean only the physical kind; it is not the 'stuff', really, that somatic practitioners aim to change. Rolf provided evidence that she understood structure in innovative ways. In her book on integration of structure, Rolf states, "In any energy system, however complicated, structure (relationship of units of any size in space) is experienced as behavior. Structure is behavior" (Rolf 1977, 31). In other words, the human structure that we might wish to integrate is the tendency for our bodies to behave in certain habitual and predictable ways. Our lives are steered by patterns of behavior, and our patterns of behavior constitute our structure. (When patterns of movement change, body physiology naturally changes the tissue patterns –

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bones, muscles, and fascia – accordingly, via changed patterns of usage.)

Rolf's observations likely result from familiarity with the work of Ludwig von Bertalanffy, who formulated General Systems Theory (GST), a revolutionary approach to biological modeling introduced in the 1930s. GST became a pivotal influence, not only on biological thinking, but on broader areas of science as well. Bertalanffy states that structure means essentially the way a system functions over time (Bertalanffy 1976, Frank 2012). A notable Bertalanffy protégé, Norbert Wiener, the founder of Cybernetics, is quoted at the head of Rolf's preface to her book where he says, "We are not stuff that abides. Rather we are patterns that persist" (Rolf 1977, 15). Wiener was a mathematics prodigy who laid the groundwork for computer science.

Rolf made many different statements at different points of her career; some statements make it sound like she believed fascial mobilization produces lasting alteration of the fascia, and that fascial plasticity is the mechanism by which body shape changes. Her writing suggests, by contrast, a vision that goes beyond structural change as equivalent to tissue plasticity. The authors propose that the 'structural change as tissue plasticity' theme became (and remains) attractive because these ideas and images make the work easier to explain. The theme helps promote Rolfing SI to the public. And, it is worth noting, it can feel to a practitioner's hands that fascial mobilization 'softens' or 'melts' the fascia, as Rolf proposed. Alas, fascia as plastic to pressure and the notion that fascial plasticity causes posture change has eluded scientific validation. Fascia is a significant contributor to integration, as an information conduit to the sensory motor brain. Brain plasticity has acquired broad scientific validation.

To summarize tonic function's perspective on structure: structure is behavior; the specific behavior to integrate is motor

behavior. Posture is an expression of motor behavior, as is walking, lifting, pushing, and reaching, etc. Perception, it turns out, is also a form of motor behavior. The broad scope of what the movement brain choreographs is motor behavior. RMI seeks to help people change their motor behavior.

A second tonic function idea concerns gravity's role in pattern change. Gravity in the Tonic Function Model means that how we orient to gravity steers perceptual and gross motor behavior at a foundational level. Gravity orientation patterns and preferences are an underlying component of structure. The way we orient to the sense of weight and the way we orient to the feeling of the space around us and in us are strong influences that keep us moving how the way we do – ways we may wish to change (Frank 2007).

Conscious Attention to That Which Is Largely Automatic

This leads to a strategic premise: if we want to change our behavior, our motor patterns for example, a tonic function approach says we need to bring conscious awareness and attention to

the largely ignored influence of gravity orientation. We need to bring attention to gravity orientation at a direct sensory level. Gravity orientation goes on all the time, in the background, in our brain/body activity. When we pay conscious attention to the felt sense of this orientation – to the sensations of it – we harness a means to shift how we move; we shift patterns of movement behavior that are, it is worth noting, not meant to be shifted casually. We gain access to motor pattern plasticity.

An analogy: movement patterns are like those annoying 'child-proof' containers. You need motivation to get them open because it is hard. When you finally succeed, you have learned new steps to what was, formerly, a simpler process. However, once you get the knack of the new method, you get the benefit of what is in the container. Eventually, the new way of opening is easy. Similarly, when we first bring conscious awareness to our gravity orientation, as a background element to sense perception, it feels like a big deal; eventually it is not so hard to do so and we get to feel things change. We learn a means to unlock stubborn patterns of movement, old patterns that now serve us poorly. We take an important step into a



Figure 1: A foot board (or wall) provides a surface for toes or feet to press against.



Figure 2: Toe pressing combined with inhalation and orientation to space using hands and gaze helps provoke experience of elongation of front line and adaptability of G'.



Figure 3: Visual representation of the arc of imagined space.

more normalized reality of body movement and bodily health.

Start Early and Continue Throughout the Series

How do these ideas about structure, behavior, and gravity orientation fit into Rolf's classic Ten Series or a ten-session series of RMI? When is the right time to start paying attention to the way a client orients, and to how head orientation, specifically, plays a role in many motor patterns? The proposal here is that we best begin right away, in session one. There are advantages to supporting a client's head orientation experience through the series. How might spatial and sensory orientation that engages the head find its way into session one? How do we explain why we work this way to a client?

Orientation is what our brain does all the time, in the background. When we introduce a client to conscious awareness of weight or spatial orientation, it is helpful to mention that we are noticing something, or augmenting something, that is happening anyway. The body likes active support for gravity orientation. Have the client notice how finding a sense of weight or feeling space changes a simple movement, like standing up from sitting or bending over from upright standing. Paying attention to orientation replaces other, less helpful activity for movement such as worry, thinking about what the movement looks like, efforting, etc. It is useful to introduce simple experiences that

help confirm, for the client, the proposal that the body is interested.

Somatic Imagination

Spatial orientation belongs to a particular kind of imagination – a form of imagination that the body is doing anyway. This form of imagination can be called, for convenience, 'somatic imagination' (Frank and McHose 2020). It means the way bodies imagine the world in which movement takes place. Therefore, in session one, we need to teach people some simple forms of somatic imagination – somatic imagination that relates to the goals of the first session, which include opening the front line, helping to normalize breath, and evoking mobility of the upper center of gravity (G') as well as differentiating G (the general gravity center) from G'.

Building Potency of Space to Open the Front Line and Breath

How might we introduce spatial orientation in session one? How do we evoke spatial orientation that engages peripheral gaze and peripheral awareness of the space around the body and above the head?

Integration means linking together differentiated elements in a system. Linking is possible on the bodywork table when multiple aspects of body movement and body awareness are engaged simultaneously. To evoke spatial orientation, therefore, we want to provide a

whole-body movement, one that engages hands and feet and eye gaze, and the head itself, the head as a spatially sensing part of the body. The hands and feet feed sensory information to the movement brain, as does the use of the eyes for helping to build a sense of 'potent space'.

Spatial Orientation for Session One

To do the exploration: The client lies supine on a bodywork table that has a foot board (or a wall) at one end (see Figure 1). Start with guidance and touch that enables the client to notice a sense of weight in the spine and ribs, the abdomen, and head. A sense of weight reminds the body of its location – an important element. Weight helps establish for the body a sense of "I am here." The body finds reassurance repeatedly from this basic reminder.

The client can then be directed to sense his/her toes touching, but also being touched by, the foot board. S/he is asked to notice what changes in his/her experience as the toes press the board at the start of an inhaled breath. People typically notice, after a few tries, how breath movement in the front line becomes fuller and easier. Elongation of one's front line in response to toe pressing is a normal relationship. It happens in walking: there is a frontal lengthening and an advance of the upper center of gravity (G') as the toes push off and propel the upper body forward. To a certain degree it is just physics. Slowly executed and consciously noticed it becomes useful perception.

Coupled with intermittent toe pressure that supports and enhances rib excursion during inhalation, we build on this initial discovery. We invite conscious orientation to the space around the head and the space beyond the top of the head. Toe pressing and orientation in a headward direction go together naturally. (While the client lies on the table, we briefly show the client how these two components look in walking. We want to demystify the novelty of the proposal.)

The combination of toe press and outward/upward orientation helps enliven one's action space inside and out. There is more room to move as the body recognizes there is a bigger space to move in. And as this bigger movement happens, the breath is liberated to be easier and responds to this change in spatial orientation, naturally. The spatial horizon is refreshed and enlarged. A refreshed and enlarged spatial horizon, in turn, helps support anterior/posterior mobility of G'.

To make spatial orientation more tangible and noticeable – to make it easier and, at the same time, more effective – we suggest engaging the hands. The hands are a unique resource for somatic

imagination: hands are large in the sensory and motor homunculi. Hand movement is finely mapped and closely monitored. When we visually observe and, at the same time, feel the motion of our hand movement, our movement brain registers proprioceptive, interoceptive, and exteroceptive information together, at the same time (Figure 2). The combination helps clients reach a useful threshold of perceptive clarity; they start to feel confident in the validity and reproducibility of their experience.

The hands are enrolled to build a palpable sense of the surrounding space. The body notices hand gesture acutely. Hand movements are learned, at first, more easily when they are slow, deliberate, and consciously noticed. The client imagines feeling his/her hands 'palpate' the space as they move. The space can start to feel like it has its substance and that it touches the hands as they touch the space. Proximity is, to the sensibilities of the movement brain, a form of touch. Proximity to the body of the slowly hovered hands becomes potent information.

We invite the client to use his/her hands to feel, and then express through gesture, the space in front of the abdomen and chest, and then the space in front of the face and the sides of the head, and the regions of space beyond the top of the head. Done in combination with intermittent toe pressure against the foot board, the client slowly builds an imagined shape of space above his/her supine body. We call this shape an arc of imagined space, the feet indicating the direction for one end of the arc and the hands reach toward the top end of the arc beyond the head (Figure 3). This arc provides a spatial inspiration for the inhaled breath. Imagined playfully,

with easy breath rhythm, and prefaced by opportunity to feel a settling of the spine on the table, many clients discover a relationship between an imagined arc as 'front line of space' and the front line of the body – each component complementing the other. The imagined 'front line of space' informs the body's map of its bodily front line; and as a breath occurs, the breath movement is inspired by spatial orientation.

There is a further role for observed hand movement: we show the client how to use his/her hands to make a shape we call the 'orb of orientation', an open basket-like shape that we incorporate into the exploration of the arc of imagined space. The fingertips of both hands match and touch each other to create this open orb as shown in Figure 4. This orb of orientation utilizes the body's sense of its hands, to the space they occupy, the spaces between the fingers, and to the shape produced as the fingers touch each other. This experience of shape amplifies the body's ability to imagine the space one observes with the eyes, but then also the space that passes out of sight, once initially seen and felt, so orientation of space is felt by the head. The client finds out that the head is a sense-receptive part of the body. The orb of orientation teaches the head to orient and palpate the space even though that region of space is not, at that moment, seen visually. This last point is vital. The orb moves from visually observed space to space around the head that is not visually observable; this transition provides an opportunity to witness head orientation that is first seen, then not seen but, nonetheless, felt kinesthetically. Orientation thus starts to include a feeling that the head participates



Figure 4: The 'orb of orientation': close up (A), moved toward (B), and then beyond (C).

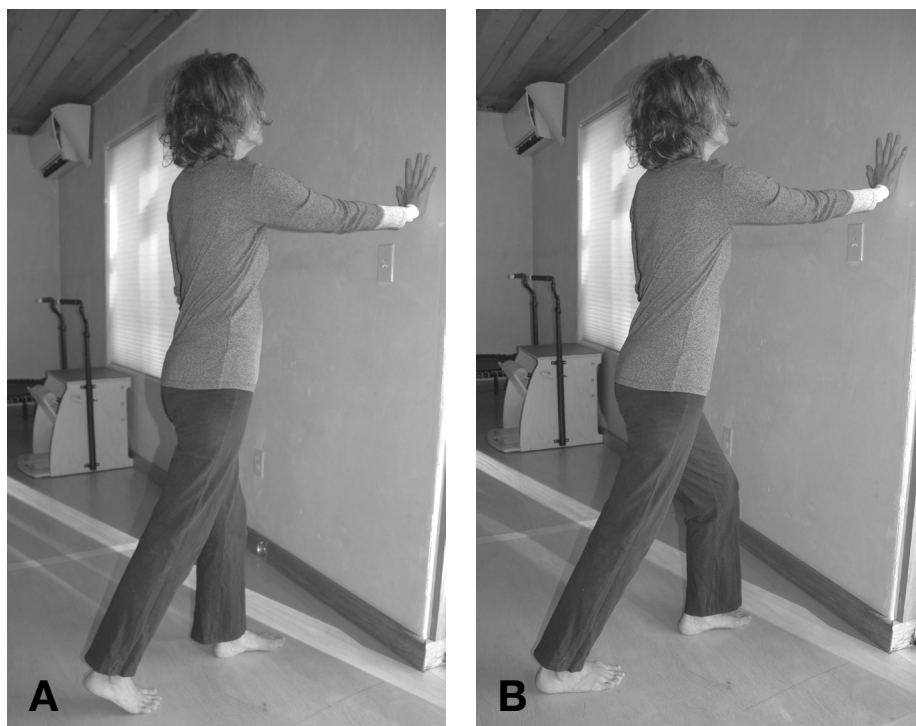


Figure 5: Pressing a hand on the wall from the toes (A), and then pressing the foot to the floor from the hand on the wall (B) to build the support for the head belonging to space.



Figure 6: Pressing a hand on the mirror, in the same manner of pressing the wall in the previous example, and exploring how spatial orientation of the head might shift the visual impact of one's image.

in conscious exteroceptive awareness, a fundamental skill for RMI.

Receptive (Haptic) Gaze

The orb of orientation leads to an additional outcome: gaze acquires familiarity with a receptive mode of perception. Gaze learns to be 'active in receptivity' – what is called 'haptic'. Haptic refers to those dimensions of sense perception in which there is an experience of being touched by what is perceived. Received sense perception finds ground in the body as the body orients to a sense of weight. Received sense perception relates to weight because weight is about the body noticing its location – weight tells the body it is 'here'. A feeling of 'here' enables the sense of received sense perception.

These two aspects of orientation go together. A client must first have found some sense of received weight in the bones or the soft tissues to be able to productively build an imagined arc of space. Spatial orientation is most somatically potent when there is a receptive or haptic quality to the imagined space. Weight and space receptivity are built concomitantly. Work done on the table (supine, sidelying, and prone), seated, and standing – the body integrates all of these more fully with improved support from receptive gaze and the capacity to imagine and utilize 'orbs' of orientation in different postural situations.

Upper-Pole Integration Through Whole-Body Movements Seated, Standing, and Walking

As a session or a series progresses, upper-pole integration is fostered by whole-body movements with hands and feet engaged and connected to finding continuity with movement through the spine. Once done on the table, related integrative activity is introduced seated and standing. Here are three progressive variations for an example of spatial support for integration in upright situations.

Variation 1: The client stands in front of a wall and assumes a contralateral stance, with the forward hand (same side as the foot placed behind) pressing the wall. The client links touch of the floor on the feet, pressed hand to feel touch from the wall, and the spatial orientation of head and tail to build a palpable space around the head.



Figure 7: The contralateral meeting brings head orientation into the realm of relational dynamic. Can somatic resources support discovery of spaciousness in a face-to-face meeting?

Looking at Figure 5, the image labeled A shows that the client then rises on to the toes to press the wall followed by hand press on the wall to return the heel to the floor (B). With each press of toes and hand, the head space amplifies. Head orientation, thus arrived at, can evoke a sense that the body hangs from the head. The head belongs to its surrounding space.

Variation 2: The client stands in front of a wall with a mirror that reflects the upper body and head at minimum (see Figure 6). The client builds the support from hands and feet and head and tail in same manner as variation 1, but practices allowing the head orientation, the peripheral receptive gaze to 'soften' the impact of this reflected visual self-image. As the client opens to spatial orientation of the head and to the space behind and around the reflected image, that reflected image can become less personal and less dominant in proportion to the space felt and seen around it.

Variation 3: Two people form a meeting, back of hand (or wrist) to back of hand, each person in contralateral stance as shown in Figure 7. (Note the similarity to, but also the distinct differences from, a martial arts version of this setup.) The two people both notice how the floor touches their feet and offers support. They also notice received touch to the back of their hands from the partner's hand. Both people build an experience of omnidirectional head orientation to space, a spatial resource for negotiating the challenge of this direct sagittal meeting.

Sustaining these newly built perceptions offers a resource, a presence, that diminishes the potential awkwardness in the face-to-face encounter. Rather than an avoidance of awkwardness, attention is channeled to forms of somatic imagination that restore natural stability, in this case being somatically present to a face-to-face meeting. Sufficient hand receptivity, foot receptivity, coupled with spatial receptivity at the upper pole allows a person to feel that s/he belongs in and to the space that s/he occupies and appreciate that another person can become an interesting part of that big and supportive space, rather than a problem. This form of meeting helps a client learn to sustain omnidirectional head orientation in social situations, or while walking – an activity in which integration can continue to deepen.

The Wall Test

For a seated exploration, pressing the wall with toes and hands, we'll use the Wall Test (Figure 8; see also Frank and McCall 2016). This requires sustained awareness of the available support – the bench surface touching the rami, the floor touching the feet, the wall touching the hands, the wall touching the toes – but also, omnidirectional spatial presence for the head. An upper pole supported by omnidirectional orientation with space is essential for normalized stability in the shoulder girdle; upper-pole stability frees the hands and arms to connect easily to and with the axis. The Wall Test helps the

practitioner and client feel the relative success using either the hands or the feet to press against the wall such that the press delivers elongation in the front of the spine – elongation palpable to a practitioner's hand placed near T12 of the client's back.



Figure 8: The Wall Test setup. The test is a chance to compare upper and lower girdle; capacity to press with normalized stability depends in large part on a head that belongs to the space.

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Receptive Sense Perception

In addition to the value of spatial orientation via receptive gaze and a receptive sense via the head itself, other senses experienced as receptive are possible and, in fact, vital to broader integration. Evocation of *receptivity* to sounds in the environment, to the temperature of air on one's skin, receptivity to smell – all the senses can feed recovery of spatial orientation. Conversely, *focusing* with visual, auditory, and kinesthetic senses often reduces stability of, for example, the shoulder girdle, in the form of reduced palpatory sensitivity and less ease in pressing with the hands. Movement-brain intelligence is frequently interrupted by goal-directed or analytic preoccupation, with all-too-familiar results. Ultimately, some focused perception, or analytic activity, does not have to interrupt normal motor activity and stability; however, it usually requires some practice for efforted patterns to let go.

Summary

Weaving a client's experience of the head as a primary element for spatial orientation into the Ten Series of Rolfing SI or into a series of RMI session amplifies the power of the series. Head orientation is more likely to be part of integrative milestones if started at the outset of a series when the client may be most open to somatic exploration as a component of each session. Initial discoveries combined with repeated inclusion of orientation practice increase the chance clients will practice on their own and apply their session experiences to daily life. The upper pole is fertile ground for evocation of changes in motor behavior, especially as clients more fully understand their role in the process.

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worked with the Hubert Godard-derived Tonic Function Model since 1991 and has written on this topic from 1995 to the present. Kevin advocates for an 'information system' view of Rolfing SI to help bring the SI field into congruence with modern understanding of motor control and perceptive/coordination processes.

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