# Technical description for LatCeph Program:

1. **Points (Coordinates):**  
     
   (NB: capitalization is important;  
   Capital letters – points on bone structures  
   lowercase letters – points on soft tissues)

|  |  |
| --- | --- |
| **#** | **Point** |
| 1 | - |
| 2 | - |
| 3 | S |
| 4 | Se |
| 5 | N |
| 6 | A |
| 7 | B |
| 8 | Or |
| 9 | Pg |
| 10 | Gn |
| 11 | Me |
| 12 | Go |
| 13 | AntGo |
| 14 | Ar |
| 15 | Ba |
| 16 | Po |
| 17 | Co |
| 18 | SnA |
| 19 | SnP |
| 20 | Pt |
| 21 | U1 tip |
| 22 | U1 apex |
| 23 | L1 tip |
| 24 | L1 apex |
| 25 | U6 tip |
| 26 | U6 apex |
| 27 | L6 tip |
| 28 | L6 apex |
| 29 | Occ1 |
| 30 | Occ2 |
| 31 | ul |
| 32 | ll |
| 33 | sto |
| 34 | n |
| 35 | pg |

1. **Planes/Lines/Secondary Points derived from Points:**

|  |  |  |
| --- | --- | --- |
| **Abbreviation** | **Object type** | **New objects** |
| SNL | Line | S to N (Cranial Base) |
| FH | Line | Or to Po (Frankfurt Horizontal) |
| ML | Line | Go to Me (Mandibular Plane) |
| NL | Line | Sna to SnP (Maxillary Plane) |
| OccL | Line | Occ1 to Occ2 (Occlusal Plane) |
| RL | Line | Ar to Go (Ramal line) |
| EL | Line | pg to n (Aesthetic line) |
| U1 inc | Line | U1 tip to U1 apex (Upper incisor) |
| L1 inc | Line | L1 tip to L1 apex (Lower incisor) |
| A’ | Point | achieved by dropping a perpendicular from A onto NL |
| Pg’ | Point | achieved by dropping a perpendicular from Pg onto ML |
| U1’ | Point | achieved by dropping a perpendicular from U1 tip to NL |
| L1’ | Point | achieved by dropping a perpendicular from L1 tip to ML |
| U6’ | Point | achieved by dropping a perpendicular from U6 tip to NL |
| L6’ | Point | achieved by dropping a perpendicular from L6 tip to ML |
| A’’ | Point | achieved by dropping a perpendicular from A to OccL |
| B’’ | Point | achieved by dropping a perpendicular from B to OccL |

1. **Angular Calculations:**

|  |  |  |
| --- | --- | --- |
| **Angle** | **Calculation** | **Explanation** |
| U1/NL | U1/NL  Inside lower angle | Inclination of U1 |
| L1/ML | L1/ML  Inside upper angle | Inclination of L1 |
| U1/L1 | U1/L1  Inside angle | Inter-incisal angle |
| NL/SN | NL/SN Outside angle | Maxillary plane to Cranial base |
| ML/SN | ML/SN (outside angle) | Mandibular Plane to SN Plane |
| NL/ML | NL/ML (outside angle) | Maxillary Plane to Maxillary Plane |
| FH/SN | FH/SN (outside angle) | Frankfurt Horizontal to Cranial Base |
| NBa/PtGn | NBa/PtGn (outside angle) | Facial angle |
| S/N/A | - | SNA Angle |
| S/N/B | - | SNB Angle |
| Ar/Go/Me | - | Gonial Angle |
| Ar/Go/N | - | Upper Gonial Angle |
| N/Go/Me | - | Lower Gonial Angle |
| N/S/Ar | - | Cranial Angle |
| S/Ar/Go | - | Articular Angle |

1. **Linear Calculations:**

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| --- | --- | --- |
| **Measurment** | **Calculation** | **Explanation** |
| NS | Point N to Point S | Cranial base length |
| SnA-SnP | Point SnA to Point SnP | Maxillary length |
| Go-Me | Point Go to Point Me | Mandibular length |
| Ar-Go | Point Ar to Point Go | Rear Facial Height |
| Co-Go | Point Co to Point Go | Ramal Height |
| N-Me | Point N to Point Me | Frontal Facial height |
| U1-NL | Point U1 Tip to point U1’ | U1 Dento-Alveolar Height |
| L1-NL | Point L1 Tip to Point L1’ | L1 Dento-Alveolar Height |
| U1 length | Point U1 Tip to Point U1 Apex | Upper incisor Length |
| L1 length | Point L1 Tip to Point L1 Apex | Lower Incisor Length |
| U6-NL | Point U6 Tip to point U6’ | U6 Dento-Alveolar Height |
| L6-NL | Point L6 Tip to Point L6’ | L6 Dento-Alveolar Height |
| ul-E | Point ul to Line EL |  |
| ll-E | Point ll to Line EL |  |
| Witts | Point A’’ to B’’ | Appraisal of jaw bases |

1. **Further Calculations**

|  |  |  |
| --- | --- | --- |
| **Measurement** | **Calculation** | **Explanation** |
| Max Norm | NS \*0.7 | Normal length of Maxilla |
| Mand Norm | NS\*1.01 | Normal length of Mandible |
| ArGo:NMe | ArGo/NMe | Rear to Frontal Facial Height |
| CoGo:GoMe | CoGo/GoMe | Ramus to Body of Mandible |
| U1-NL:L1-NL | U1-NL/L1-NL | Incisor to Incisor |
| U1-NL:U6-NL | U1-NL/U6-NL | Upper to Upper |
| L1-ML:L6-ML | L1-ML/L6-ML | Lower to Lower |
| U6-NL:L6-ML | U6-NL/L6-ML | Molar to Molar |

1. **Results:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Measurement** | **Value** | **Norm** |  |
| **NS** | **NS (4)** | **-** |  |
| **A’SnP** | **A’SnP (4)** | **Max Norm (5)** |  |
| **GoMe** | **GoMe (4)** | **Mand Norm (5)** |  |
| **SNA** |  |  |  |
| **SNB** |  |  |  |
| **…** |  |  |  |
| **….** |  |  |  |